EXPERIMENTAL BIOLOGY 2017
LATE-BREAKING ABSTRACTS
McCormick Place Convention Center, Skyline Ballroom
Wednesday, April 26

Authors Place Posters: 7:00 AM–9:00 AM
Poster Viewing: 9:00 AM–4:00 PM
Poster Presentation/Defending: listed next to each discipline below
Authors Remove Posters: 4:00 PM–6:00 PM
(posters not removed by 6:00 PM will be discarded)

Anatomy: 9:30 AM–11:00 AM
Anatomy....................................................................................................................LB1–LB7
Anatomy Education.................................................................................................LB8–LB19
Biological Anthropology..........................................................................................LB20–LB21
Bones, Cartilage and Teeth.....................................................................................LB22–LB26
Cardiovascular Biology ..........................................................................................LB27–LB28
Cell Biology ............................................................................................................LB29–LB31
Development and Growth .......................................................................................LB32–LB34
Evolution and Comparative Anatomy.....................................................................LB35–LB36
Imaging ....................................................................................................................LB37
Neurobiology ...........................................................................................................LB38–LB47
Regenerative Medicine, Stem Cells, Wound Healing and Bioengineering........LB48–LB49

Biochemistry and Molecular Biology: 12:00 PM–2:30 PM
Genome Dynamics: DNA Replication, Repair and Recombination ..................LB50–LB60
Chromatin Structure and Gene Expression ..........................................................LB61–LB70
Protein Chemistry, Synthesis and Turnover .........................................................LB75–LB107
Biomolecular Catalysis ..........................................................................................LB108–LB112
Chemical Biology, Drug Discovery and Bioanalytical Methods .......................LB113–LB132
Systems Biology Technologies and Applications ............................................LB133–LB139
Signal Transduction and Cellular Regulation .....................................................LB140–LB196
Microbial Systems and Parasitology ...................................................................LB197–LB207
Metabolism and Bioenergetics ............................................................................LB208–LB223
Lipids and Membranes .........................................................................................LB224–LB231
Cell and Organelle Dynamics .............................................................................LB232–LB242
Glycans and Glycobiology ...................................................................................LB243–LB246
ASBMB Education and Professional Development ..........................................LB247–LB271

Nutrition: 9:00 AM–10:00 AM
ASN Variability in Responses to Diet and Food ....................................................LB272–LB292
ASN Nutrition on Healthy Growth, Development and Reproduction ...............LB293–LB308
ASN Disease Prevention, Progression and Treatment ........................................LB309–LB360
ASN Nutrition-Related Behaviors ......................................................................LB361–LB378
ASN Food Supply and Environment .................................................................LB379–LB387
ASN Vitamins, Minerals, and Bioactives .............................................................LB388–LB428
ASN Energy and Nutrient Metabolism ...............................................................LB465–LB482
Pathology: 11:45 AM–1:45 PM
It’s A Dangerous World Out There: Toxic Injury .............................................................. LB483–LB487
Cell and Molecular Therapies ......................................................................................... LB488–LB495
Mechanisms in Malignancy ............................................................................................ LB496–LB499
Injury and the Host Response ......................................................................................... LB500–LB508
On Your Mind: Neurobiology and Neuropathology ....................................................... LB509–LB512
Methodologies in Pathobiological Investigation ............................................................... LB513–LB523

Pharmacology: 12:30 PM–2:30 PM
Cancer Pharmacology ...................................................................................................... LB524–LB536
Cardiovascular Pharmacology ......................................................................................... LB537–LB565
Cellular and Molecular Pharmacology ......................................................................... LB566–LB574
Central Nervous System Pharmacology ...................................................................... LB575–LB594
Drug Discovery and Development ............................................................................... LB595–LB607
Drug Metabolism and Disposition ................................................................................ LB608–LB615
Pharmacogenomics and Translational Pharmacology .................................................. LB616–LB617
Pharmacology Education ............................................................................................... LB618
Toxicology ....................................................................................................................... LB619–LB628
Pharmacology – Other ..................................................................................................... LB629–LB635

Physiology: 12:30 PM–2:15 PM
Cardiovascular ................................................................................................................ LB636–LB682
Cell and Molecular Physiology ...................................................................................... LB683–LB701
Central Nervous System (CNS) ..................................................................................... LB702–LB709
Comparative and Evolutionary Physiology .................................................................. LB710–LB712
Biomedical Engineering ................................................................................................. LB713
Endocrinology and Metabolism ..................................................................................... LB714–LB732
Environmental and Exercise Physiology ....................................................................... LB733–LB750
Epithelial Transport ........................................................................................................ LB751–LB752
Gastrointestinal and Liver Physiology .......................................................................... LB753–LB757
History of Physiology .................................................................................................... LB758
Hypoxia .......................................................................................................................... LB759
Microcirculation ............................................................................................................. LB760–LB765
Muscle Biology .............................................................................................................. LB766–LB789
Neural Control and Autonomic Regulation ................................................................. LB790–LB805
Nutrition Physiology ...................................................................................................... LB806–LB813
Physiological Genomics ................................................................................................. LB814
Renal Physiology ............................................................................................................ LB815–LB825
Respiration ..................................................................................................................... LB826–LB840
Sex Differences in Physiology ....................................................................................... LB841–LB847
Teaching of Physiology ................................................................................................. LB848–LB851
Translational Physiology ............................................................................................... LB852–LB853
Water and Electrolyte Homeostasis ............................................................................. LB854–LB860
Anatomy


LB2  Immunohistochemical Assessment of Hassall’s Corpuscles in Human Foetal Thymuses. S.S. Sahni, R. Gupta, T. Gupta, A. Aggarwal. Dayanand Medical College, India, Adesh Medical College and Hospital, India, and Postgraduate Institute of Medical Education and Research, India.

LB3  Ischemic Colitis May Be a Diagnostic Sign for the Presence of Aortic Abdominal Aneurysm (AAA). B. Hinsley, S. Gowan, B. Casey, L. Urita, A. Molnar, N. Reeves, G. Nagy, L. Sandy. Ross University School of Medicine, Dominica.

LB4  Correlation Between Obesity and Flat Feet Among School Age Children. M.A. Bardales-Cahua, C.B. Bardales-Vásquez, C.A. León-Torres. Antenor Orrego Private University, Peru and National University of Trujillo, Peru.

LB5  The Role of Aminoguanidine on the Epididymis of Diabetic Rats: A Histological Study. M.A. Othman. College of Medicine, Arabian Gulf University, Bahrain, and Assiut University, Egypt.


Anatomy Education


LB10  Three Dimensional (3D) Virtual Human Cadaver, Anatomage: An Effective Teaching Tool for Human Anatomy. R. Narnaware. MacEwan University, Canada.


LB12  The Human Anatomy Laboratory Companion: A Teaching Tool Created by Students, for Students. V.N. Forster, L. Jadeski. University of Guelph, Canada.

LB13  Online Learning Modules Based on Spacing and Testing Effects Improve Medical Student Performance on Anatomy Examinations. D. Baatar, E. Ricks, T. Gest. Texas Tech University Health Sciences Center El Paso, Paul L. Foster School of Medicine, Texas Tech University Health Science Center El Paso and Paul L. Foster School of Medicine.


LB17  Educational Outcomes of Implementing Prosections as Educational Tools in the Medical Gross Anatomy Laboratory. S.R. Williams, K. Thompson, A. Sinning. The University of Mississippi Medical Center and Millsaps College.


Biological Anthropology


Bones, Cartilage and Teeth


LB26  Rare Bony Tunnel and the Middle Meningeal Artery. J.A. Bonatto-Costa, D. De Campos, S. Toillier, L.F. da SilvaFurtado, A.O. Rocha, T. Malysz. Universidade Federal de Ciências da Saúde de Porto Alegre, Brazil, Universidade do Vale do Rio dos Sinos, Brazil, Universidade de Santa Cruz do Sul, Brazil, and Universidade Federal do Rio Grande do Sul, Brazil.

Cardiovascular Biology


LB28  Microvascular Corrosion Casting of the Ovary in Non-Pregnant and Pregnant Does. S. Hafez, T. Cacchi. Virginia Tech Carilion School of Medicine and Research Institute and Virginia Polytechnic Institute and State University.

Cell Biology


LB31  Hepatotoxicity of Monoglutamate Sodium: Oxidative Stress and Histopathological Study. M. Elshafey, M.A. Eladl, M. El-Sherbiny, H. Atef, D.A. El Morsi. Mansoura University, Faculty of Medicine, Egypt, University of Sharjah, College of Medicine, United Arab Emirates, and Almaarefa College of Medicine, Saudi Arabia.

Development and Growth


LB33  Fetal Alcohol Syndrome Effects in Retinal Cell Gene Expression and Development. J.A. Rodriguez, P.A. Muradalhan, J.A. Margs. Indiana University Purdue University Indianapolis.


Evolution and Comparative Anatomy

LB35  Large Hadrosaurid Dinosaur from the San Juan Basin, New Mexico. N. Carrillo, A. VanZant, M. Guenther. Elmhurst College.

LB36  Phenotypic Response in the Mouse Tail Musculoskeletal System Associated with Differences in Tail Use and Mechanical Loading Milieux. J. Organ, A. Luger, L. Chavez, A. Stachel, D. Adriaens. Indiana University School of Medicine and Ghent University, Belgium.

Imaging

LB37  Harvest and Imaging of Pleural Mesothelium en Face. C.D. Valenzuela, A.B. Servais, A. Kienzle, A.B. Ysasi, W.L. Wagner, M. Ackermann, A. Tsuda, S.J. Mentzer. Harvard Medical School/Brigham and Women's Hospital, University Medical Center of the Johannes Gutenberg University, Germany, and Harvard School of Public Health.

Neurobiology

LB38  Epigenetic Modifications Following NLRP3 Induced Inflammation of Oligodendrocyte Precursor Cells. R.E. McKinley, A. Csoka. Howard University College of Medicine.


LB40  Effects of Physical Exercise on Adult Hippocampal Neurogenesis: Changes in DNA Methylation and a Focus on Smad2 Gene. J. Trejo, A. Herrera, Á. Fontán-Lozano, S. Pons, S. Gradari. Cajal Institute–Consejo Superior de Investigaciones Científicas (CSIC), Spain, Molecular Biology Institute–CSIC, Spain, and Facultad de Biología–University of Seville, Spain.
**LB41** Gastrocnemius and Tibialis Anterior Neuromuscular Activity Alterations in Adults with Control Type Two Diabetes Mellitus During Standing Postural Tasks. M.G. Rosario, D.C. Dunbar, A. Ortiz. Texas Woman's University and University of Puerto Rico Medical Sciences Campus.


**LB43** Developmental Innervation of Rat Palatine Glands. Z. Hakami, S. Wakisaka. University of Connecticut Health Center, Jazan University, Saudi Arabia, and Osaka University, Japan.

**LB44** Morphologic Analysis of Spinal Cord Ischemia-Reperfusion Injury Caused by Aortic Cross Clamping in a Rat Model. D. Bobinac, T. Celic, I. Vukelic. Faculty of Medicine, University of Rijeka, Croatia.

**LB45** Cortactin Controls Morphological and Electrophysiologic Properties During Activity-Dependent Synaptic Plasticity at the Drosophila Neuromuscular Junction. M. Perez, C. Dominici, C. Maldonado, B. Marie. Institute of Neurobiology and Department of Anatomy and Neurobiology.


**LB47** Does the Copulatory Plug Cause Pseudopregnancy in Female Mice? M.J. Lough-Stevens, M.D. Dean. University of Southern California.

**Biochemistry and Molecular Biology**

**Genome Dynamics: DNA Replication, Repair and Recombination**


**LB51** Lysine Acetylation of Nuclear Pif1 Regulates Its Helicase Function. O.E. Ononye, C.W. Sausen, M.W. Bochman, L. Balakrishnan. Indiana University-Purdue University Indianapolis and Indiana University.


**LB53** Base Unpairing at the Flap Junction Controls the Rate of FEN1-Catalyzed Cleavage of DNA During Replication and Repair. B. Song, M.M. Hingorani. Wesleyan University.

**LB54** Does the Duration and Temperature of Lysis Buffer Been Minimized for the Comet Assay? A.A. Aloihaly, Y. Ji, M.S. Cooke, M. Karbaschi. Florida International University.


**LB56** Outer Membrane Vesicles from Clinical Strains of Escherichia coli Can Cause Megalocytosis and DNA Damage in HeLa Cells. Y. Morales-Lozada, R. Gómez-Moreno, A. Baerga-Ortiz. University of Puerto Rico, Rio Piedras Campus, University of Puerto Rico and Medical Science Campus.

**LB57** Regulation of the Functional Properties of Xeroderma Pigmentosum Complementation Group A (XPA) Protein Through Lysine Acetylation. C. Njeri, J. Kaur, J. Turchi, L. Balakrishnan. Indiana University-Purdue University Indianapolis and Indiana University School of Medicine.

**LB58** A SUMO-Ubiquitin Mediated Proteasome Pathway in Repair of DNA Damage Induced by Topoisomerase II Inhibitors. Y. Sun. University of Illinois at Chicago.

**LB59** Spontaneous Differentiation and Organotypic Tissue Formation in 2D and 3D Cultures of Bovine Mammary Ductal Stem-Like Cells Isolated Directly from Fresh Milk Samples. T. Lyden, S. Kehoe, E. Plautz, M. Archambault. University of Wisconsin–River Falls.

Chromatin Structure and Gene Expression


LB65 The Roles of Flanking DNA and Transcriptional Activators in Regulating SAGA-Mediated Nucleosome Acetylation. S.J. Olson, C. Mittal, M.A. Shogren-Knaak. Iowa State University and Pennsylvania State University.


LB69 Intron 5 of RUNX1 Gene Harbors a Putative Promoter Region. S. Gutierrez, M. Hinojosa, N. Schnake, M. Martinez. Universidad de Concepcion, Chile.


RNA: Processing, Transport, and Regulatory Mechanisms


LB74 Reversibly Constraining the Human U1 snRNP and the Spliceosome to a Pre-mRNA via an Engineered Site-Specific Disulfide Bond. P. McCarthy, E. Garside, A. MacMillan, D. Pomeranz Krummel. Brandeis University, University of Alberta, Canada, and Emory University.

Protein Chemistry, Synthesis and Turnover


LB76 Purification and Subsequent Binding Assay of B-Cell Activating Factor's Receptor (BAFF-R) to an Oligonucleotide Aptamer (BAFF-R1). C.F. Inman. Sonoma State University.

LB77 Discovery of a Cell-Penetrating Peptide via Heparin-Binding from Pereskia bleo. S. Loo, A. Kam, J.P. Tam. Nanyang Technological University, Singapore.


LB84 Assessing Cysteine Residue Thiol Status in t-Darpp, a Protein Involved in Chemosensitivity. J.A. Aldana-Mendoza, P. Farias, J.A. Momand. California State University at Los Angeles.

LB86  Nuclear Transport of Fungal Transcription Factors Mediated by Importin-α and Specificities of This Interaction. N.E. Bernardes, D. Litvac, M.C. Bertolini, N. Panté, M.R. de Matos Fontes. São Paulo State University, Brazil, and University of British Columbia, Canada.

LB87  The Folding Mechanism of an Artificial Knotted Protein Characterized by Optical Tweezers. A. Bustamante, M. Rivera, J. Molina, M. Baez. Facultad de Ciencias Químicas y Farmacéuticas, Universidad de Chile, Chile.


LB93  Mechanical Untying of the Smallest Knotted Protein from Different Pulling Axis Using Optical Tweezers. M. Rivera, A. Bustamante, Y. Hao, R.A. Maillard, M. Baez. Universidad de Chile, Chile, and Georgetown University.


LB96  Investigating the Catalytic Molecular Details of Malonyl-Thioester Decarboxylating Enzymes. L.M. Stunkard, J.M. Lohman. Purdue University.


LB102  Identification of an Arabidopsis WD-Repeat Protein That Activates the Deubiquitinase UBP3 and Interacts with Two E3 Ubiquitin Ligases. A.T. Baskerville, J. Donahue, G. Gillaspy, L. Erickson. Salisbury University and Virginia Polytechnic Institute and State University.


LB105  Redundancy Between Proteasome Chaperones Nas2 and Hsm3 During Proteasome Assembly. A. Supphaiia, R.S. Chingakham, A. 'De La Mota Peynado, J. Roelofs. Kansas State University.


Biomolecular Catalysis

LB108 Molecular Mechanism of the Functions and Allosteric Regulations of the ε9 and zε Heterodimers of Human NAD-Dependent Isocitrate Dehydrogenase. J. Ding, T. Ma, Y. Liu, Y. Peng, W. Huang. Shanghai Institute of Biochemistry and Cell Biology, People's Republic of China, and School of Life Sciences, Shanghai University, People's Republic of China.


LB110 Elucidating the Molecular Details of Catalysis for Type III Polyketide Synthases Using Near Natural Substrate/intermediate Analogs. L.R. Richards, L. Stunkard, A. Benjamin, B.P. Manning, J. Lohman. Purdue University.

LB111 The Effect of Substrate Presentation and Activation on Neuraminidase NEU2 Specificity. R.J. Woods, O.C. Grant, S. Makeneni, B.L. Foley. University of Georgia.


Chemical Biology, Drug Discovery and Bioanalytical Methods


LB118 Improving Therapy for Refractory Mantle Cell Lymphoma Using Small Molecule Inhibitors Vorinostat and Palbociclib to Target Histone Deacetylase and Cyclin Dependent Kinase 4/6. N. Hatch, N. Chaturvedi, M. Kling, S. Joshi. University of Nebraska Medical Center at Omaha.


LB121 Profiling and Authentication of Herbal Products. J. Huang, K.H. Wong, J.P. Tam. Nanyang Technological University, Singapore.


LB126 Using Small Angle X-Ray Scattering to Determine the Role of Poly-Cystic Kidney Disease-Like Domains in Clostridium histolyticum. P.C. Caviness, T. Koide, O. Matsushita, J. Sakon. University of Arkansas, Waseda University, Japan, and Okayama University Graduate School of Medicine, Japan.

LB128  Determination of Total Oxytocin in Human Serum by Traditional LCMS. A. Franke, A. Menden, X. Li. University of Hawaii.

LB129  Absolute Quantitation of mRNA and DNA Copy Number in Different Nutritional States: A Methodological Approach in Primer Design, mRNA Copy Number and Discrimination Between Highly Homologous Gene Families. P. Rote, L.A. Shirota, K. Sharma, J.P. Hardwick. Northeast Ohio Medical University (NEOMED), University of Marilia Medical School (UNIMAR), Brazil, and Case Western University School of Medicine.


Systems Biology Technologies and Applications


LB135  Association Between Women with Endometriosis and Human Leukocyte Antigen-C Genotyping. Y-C. Chou, C-R. Tseng. Taipei Medical University, Taiwan and Taipei Medical University Hospital, Taiwan.

LB136  Altered Brain Hemoglobin Gene Expression in the Frontal Cortex of Patients with Alzheimer’s and Acquired Creutzfeldt-Jakob’s Disease. S. Vanni, M. Zattoni, F. Moda, F. Tagliavini, S. Haik, J-P. Deslys, G. Zanuso, J.W. Ironside, I. Ferrer, G. Kovacs, G. Legname. Scuola Internazionale Superiore di Studi Avanzati, Italy, Istituto di Ricovero e Cura a Carattere Scientifico (IRCCS) Foundation Carlo Besta Neurological Institute, Italy, Sorbonne Universités, France, Commissariat à l'énergie atomique et aux énergies alternatives, France, University of Verona, Italy, National CJD Research and Surveillance Unit, United Kingdom, Bellvitge University Hospital, Institut d'Investigació Biomèdica de Bellvitge, Spain, and Medical University of Vienna, Austria.


Signal Transduction and Cellular Regulation


LB143  Role of Serotonin Signaling in the Remodeling of Thioridazine-Induced Craniofacial Deformities in Xenopus laevis Pre-Metamorphic Tadpoles. J.S. Familia, K. Pinet, K.A. McLaughlin. Tufts University.


LB147  CD95-Ligand from Myeloid Cells Contributes to Abdominal Aortic Aneurysm Formation. W. Xiong, T. Meisinger, M. Fitzgerald, R. Batra, B T. Baxter. University of Nebraska Medical Center.

LB148  Dissecting the Dual Activity of Cellular Retinoic Acid Binding Protein 2 (CRABP2). A. Vreeland, D. Driscoll, N. Noy. Cleveland Clinic Foundation/Lerner Research Institute.
LB149  AKT Signaling Is Essential for Functional and Structural Integrity of the Heart. S. Goedecke, A. Heinen, F. Moeller, R. Deenen, K. Koehrer, A. Goedecke. UKD Heinrich-Heine-University, Germany.


LB154  Ecdysoneless, a Novel Regulator of Calcium Influx. A. Sarkar. University of Nebraska Medical Center.


LB159  C-Terminal 15kDa Fragment from β-Actin Causes Apoptotic Cell Death. N. Ito, S. Tone, M. Tanaka. Tokyo Denki University, Japan.

LB160  Downregulation of X-Linked Inhibitor of Apoptosis Protein by ‘7-Benzylidenenaltrexone Maleate” Sensitizes Pancreatic Cancer Cells to TRAIL-Induced Apoptosis. S-Y. Kim, S. Park, S. Yoo, J.K. Roh, E S. Jun, S. Chang, K.K. Kim, S.C. Kim, I. Kim. ASAN Medical Center, Republic of Korea, University of Ulsan College of Medicine, Republic of Korea.


LB169  BET Inhibition Suppresses Gastric Cancer Cell Proliferation by Inducing Cell Senescence. X. Dong. University of Illinois at Urbana-Champaign.

LB170  Prolyl Isomerase Pin1 Regulates the Stability, Transcriptional Activity and Oncogenic Potential of Brd4. X. Hu. University of Illinois at Urbana-Champaign.

LB171  Characterization of Human SH2 Domain-Containing Protein 4A(SH2D4A) in HeLa Cells. L. Tamborlin, K.D. Pereira, L. Meneguello, A.R.G. de Proença, A.D. Luchessi. University of Campinas, Brazil and Sao Paulo State University, Brazil.

LB172  Characterizing the Transcriptional Regulation of Importin α1 Expression in Non-Small Cell Lung Cancer. C-J. Yu, Y-Y. Cheng, H-P. Feng, P-Y. Li, C-L. Wang. Chang Gung Memorial Hospital, Linkou, Taiwan and Chang Gung University, Taiwan.

LB173  LPIN1 Promotes Epithelial Cell Transformation and Mammary Tumourigenesis via Enhancing Insulin Receptor Substrate 1 Stability. H.S. Choi. Chosun University, Republic of Korea.
LB174 Breast Tumor Cell-Derived FGF-5 Induces MEKK1-Dependent Chemokine Expression in Mammary Fibroblasts: Implications for Tumor Microenvironment. B.D. Cuevas. Loyola University Chicago.


LB177 Inhibition of Human Prostate Cancer Growth by Mesenchymal Stem Cells Delivering MiR-16. E. Jones, P. Mazirka, M.A. McNurlan, P. Brink, G. Caso. Rutgers, Robert Wood Johnson Medical School and Stony Brook University Medical Center.


LB180 Haspin Is a Survival Factor for H3T3 Phosphorylation and Survivin Recruitment in Malignancy of Colorectal Cancer. T-C. Lee, Y-H. Chang, T-W. Yu, T-K. Shen, M-C. Tsai, C-C. Huang, T-W. Yang, C-C. Lin, G-Y. Chiou, Y-J. Jong, J-I. Chao. National Chiao Tung University, Taiwan, and Chung Shan Medical University Hospital, Taiwan.


LB182 Glioma Cell Proliferation Promoted by AK4 Regulated mTORC1 Pathway Activation. J. Silva, N. Lanning. California State University at Los Angeles.


LB186 The Cytoprotective Effect of Chlorogenic Acid Against Oxidative Stress-Induced Cell Damage via the ERK and PI3K/Akt-Mediated Nrf2/HO-1 Signaling Pathways. M. Jang, G-H. Kim. Duksung Women's University, Republic of Korea.


LB189 Subpopulations of Dopamine Transporters Show Enrichment in Phosphorylation or Palmitoylation. M.H. Storandt, M.J. Hovde, D.J. Stanislawski, R.A. Vaughan, J.D. Foster. University of North Dakota School of Medicine and Health Sciences.


LB192 The Role of Glucose-6-Phosphate Dehydrogenase of Inflammasome Activation. D.T-S. Chiu, W. Yen, Y-H. Wu. Chang Gung University, Taiwan, and Linkou Chang Gung Memorial Hospital, Taiwan.


LB194 Modulation of Inflammasome Signaling by Advanced Glycation End Products (AGEs). S. Son, I. Hwang, J-W. Yu. Yonsei University College of Medicine, Republic of Korea, and Brain Korea 21 PLUS Project for Medical Science, Republic of Korea.

LB195 Pseudomonas aeruginosa Attenuates Inflammasome Activation via Quorum Sensing-Dependent Mechanism. J. Yang, K-M. Lee, S. Park, S-S. Yoon, J-W. Yu. Institute for Immunology and Immunological Diseases, Yonsei University, Republic of Korea, Brain Korea 21 PLUS Project for Medical Science, Republic of Korea, and Yonsei University College of Medicine, Republic of Korea.
Microbial Systems and Parasitology.


LB199 Direct and Specific Interaction of MIF and Bacterial Endotoxin May Play an Important Role in the Pathogenesis of Sepsis. T. Cho. Saint Louis University School of Medicine.


LB202 Genotypically Distinct *Helicobacter pylori* Causes Gastric and Peptic Ulcer Diseases in Kashmir Indian Patients. S. Rehman, A.C. Bharti, B.C. Das, J. Talukder. West Virginia University, University of Delhi North Campus, India, and University of Wisconsin–Stout.

LB203 Characterizing the Mechanism of Trogocytosis in *Entamoeba histolytica*. S.E. Feeney, K.S. Ralston. University of California at Davis.

Metabolism and Bioenergetics


LB212 Elucidation of Juglone Synthesis in Black Walnut. R.M. McCoy, Y. Ye, J.R. Widhalm. Purdue University.

LB213 The Good, the Bad and the Ugly of Nitric Oxide, Superoxide and Peroxyxinitrite Signaling During Oxygen-Glucose Deprivation in Rat and Arctic Ground Squirrel. S. Bhownick, K. Drew. University of Alaska Fairbanks.


LB221 Melatonin Improves Insulin Resistance and Hepatic Steatosis Through Attenuation of ER Stress. J. Heo. Korea University, Republic of Korea.

LB222 Cytokine Production by Insulin Resistant Adipocytes. K.R. Levenberg, T. Laakko-Train. Elon University.


Lipids and Membranes


LB226 Yeast Pah1 Phosphatidate Phosphatase Regulates the Expression of Phosphatidylerine Synthase for Membrane Phospholipid Synthesis. G. Han, G.M. Carman. Rutgers University.

LB227 HIF-1α-Mediated Induction of Insig-2 Regulates Cholesterol Metabolism by Accelerating Degradation of HMGCR. S. Hwang, Y. Jo, N. Wolff, J. Brugarolas, R. DeBose-Boyd. University of Texas Southwestern Medical Center.


Cell and Organelle Dynamics


LB234 Type I Interferons Block Extracellular Vesicle-Mediated Cargo Transfer. M.P. Hantak, E. Qing, T. Gallagher. Loyola University Stritch School of Medicine.


LB241 First-In-Class Naturally Occurring Bioenergetic Peptide from Hibiscus sabdariffa. A. Kam, S. Loo, J.P. Tam. Nanyang Technological University, Singapore.
Glycans and Glycobiology


LB246 Biological Roles of Oligosaccharides on Recombinant Eel LH and Functions of Eel LH Receptors. M. Byambaragchaa, M-H. Kang, D. Kim, K-S. Min. Hankyong National University, Republic of Korea, Hoseo University, Republic of Korea, National Institute of Fisheries Science (NIFS), Republic of Korea, and Institute of Genetic Engineering, Republic of Korea.

ASBMB Education and Professional Development


LB249 Simulating a Graduate Student Experience in an Undergraduate Course. A.E. Bednarski. Washington University in St. Louis.


LB254 Developing 3-D Molecular Models to Highlight the Angiotensin II Type 1 Receptor and Olmesartan Binding for Medical and Educational Applications. E.F. Schmitt Lavin, G. Merus, V. Ramirez, R. Vohra. Nova Southeastern University.

LB255 Industry and Community Engagement in a High School Bioscience Course. A.J. Tabor, R.J. Gray. Northern Arizona University, Coconino Community College and CAVIAT.


**Experimental Biology 2017: Late-Breaking Program**


---

**Nutrition**

**ASN Variability in Responses to Diet and Food**

**LB272** Comparing the Impact of Saturated Fatty Acids from Different Dairy Sources on the Proteome of High Density Lipoproteins. D. Bernic, D. Brassard, A. Droit, F. Roux-Dalvai, M. Tessier-Grenier, E. Rajendiran, Y. She, V. Ramprasath, I. Gigleux, É. Levy, A. Tremblay, P. Jones, P. Couture, B. Lamarche. Laval University, Canada, CHU de Quebec Research Center, Canada, University of Manitoba, Canada and CHU Sainte-Justine Research Center, Canada.


**LB276** What About Tomato Intake and the Regulation of Inflammation? M.F. Godoy, N.H. Slobdianik, E.M. Insani. Food Technology Institute, INTA, Argentina, School of Pharmacy and Biochemistry, Argentina, and Biotechnology Institute, INTA, Argentina.


**LB279** Effects of a 3-Week Moderate Calorie Restriction Intervention on Cerebral White Matter Connectivity in Subjects with Obesity. C.N. Kahathuduwa, T. Davis, M. O’Boyle, M. Binks. Texas Tech University, and University of Peradeniya, Sri Lanka.

**LB280** Transient Receptor Potential Canonical Channel-1 (TRPC1) KO Mice That Exercise Are Protected from High-Fat Diet-Induced Obesity and Type 2 Diabetes Risk. D. Krout, A. Schaar, B.B. Singh, J.N. Roemmich, K.J. Claycombe-Larson. US Department of Agriculture–Agricultural Research Service Grand Forks Human Nutrition Research Center and University of North Dakota.


**LB283** A Randomized, Controlled, Crossover Trial to Assess the Acute Cognitive, Appetite, Glucose and Insulin Responses to Milk and Juice Beverages in Men and Premenopausal Women. I. Edirisinghe, O.M. Palacios, B. Burton-Freeman, M.B. Spitznagel, K.M. Nieman, M. Bell, K.C. Maki. Illinois Institute of Technology, Midwest Biomedical Research—Center for Metabolic and Cardiovascular Health, Kent State University and Great Lakes Clinical Trials.

**LB284** Evaluation of a Reduced Sampling Schedule for Assessment of Pancreatic Beta-Cell Function with the Intravenous Glucose Tolerance Test During a Dietary Intervention. O.M. Palacios, K.M. Nieman, C.M. Cook, K.C. Maki. Midwest Biomedical Research—Center for Metabolic and Cardiovascular Health and Biofortis Innovation Services.


ASN Nutrition on Healthy Growth, Development and Reproduction


LB295  Nutrient Intake and Growth of Infants Enrolled in the Donor Milk for Improved Neurodevelopmental Outcomes (GTA-DoMINO) Trial: Comparison to Clinical Targets. R. Bishara, D. Ng, M. Asbury, E. Ng, S. Unger, S. Gibbins, D.L. O'Connor. SickKids Research Institute, Canada, Sunnybrook Health Sciences Centre, Canada, University of Toronto, Canada, Mount Sinai Hospital, Canada, The Hospital for Sick Children, Canada and Trillium Health Partners, Canada.


LB301  Pentosidine, an Advanced Glycation End Product, Is a Negative Predictor of Cortical Bone Geometric Endpoints in Children. J.M. Kindler, W. Liu, J. Dain, E. Laing, R.M. Lewis. The University of Georgia and The University of Rhode Island.


ASN Disease Prevention, Progression and Treatment

LB309  Dietary Pattern’s Association with Incident Parkinsonism and Progression of Parkinsonian Signs with Aging. P. Agarwal, Y. Wang, A.S. Buchman, M.C. Morris. Rush University Medical Center.


LB312  Safety and Efficacy of a Novel KD120 MEC Multi-Enzyme Complex (N-Sorb®) in Human Volunteers. B.W. Downs, S.W. Kushner, M. Bagchi, A. Swaroop, D. Bagchi. VNI, Inc., Dr. Herbs LLC, Cepham Research Center and University of Houston College of Pharmacy.

LB313  Safety and Free Testosterone Boosting Efficacy of a Novel Curculligo orchioides Extract (Blamus™) in Male Rats. D. Bagchi, A. Swaroop, M. Bagchi, H.G. Preuss. Cepham Research Center and Georgetown University Medical Center.

LB314  Reduced Whole Grain Consumption Predicts Obesity-Related Aortic Stiffness. M.S. Campbell, B.S. Fleenor. University of Kentucky.


LB318  Corn/Bean Snack Consumption Lowered Serum Lipid Levels and Caused Differential Gene Expression in Liver of C57BL/6 Mice Fed High-Fat Diet. A. Domínguez-Uscanga, G. Loarca-Piña, E. Gonzalez de Mejía. Universidad Autónoma de Querétaro, Mexico and University of Illinois.


LB320  Effects of an Egg-Based, Carbohydrate-Restricted Diet on Body Composition, Fat Distribution, and Metabolic Health in Older Adults with Obesity: Preliminary Results from a Randomized Controlled Trial. A.M. Goss, B.A. Gower, T. Soleymani, M. Stewart, K. Fontaine. University of Alabama at Birmingham.


LB328 Atractylodes rhizome and Taraxacum Alleviate Colorectal Damage and Inflammation on DSS-Induced Colitis in Mice. S. Kang, M. Park, O. Kwon. Ewha Womans University, Republic of Korea.


LB334 Anti-Inflammatory Dietary Inflammatory Index Scores Are Associated with Lower Glycemic Index Among College Students. Y. Kim, J. Chen, N. Shivappa, M. Wirth, J. Hebert. Central Michigan University, Louisiana Tech University, University of South Carolina and Connecting Health Innovations LLC.

LB335 Intact Sodium Caseinate and a Sodium Caseinate Hydrolysate Have Potential to Resolve Inflammation Through the Cessation of Proinflammatory Signaling. A. Kirwan, E. Daly, A. B Nongonierma, R. Fitzgerald, H. Roche. University College Dublin, Ireland and University of Limerick, Ireland.


LB337 Lutein and Zeaxanthin Supplement Use and Macular Pigment Change over 14 Years in the Second Carotenoids and Age-Related Eye Diseases Study (CAREDS2), an Ancillary Study to the Women’s Health Initiative. T.P. Lawler, Z. Liu, C. Blomme, R. Hammond, R. Gangnon, E. Johnson, R. Wallace, L. Tinker, A. Millet, B. Wooten, B. Smollon, J. Mares. University of Wisconsin–Madison, University of Georgia, Tufts University, University of Iowa College of Public Health, Fred Hutchinson Cancer Research Center, University at Buffalo, Macular Metrics and Brown University.


LB339 Hesperetin Inhibits Pro-Inflammatory Cytokine Secretion Induced by Lipopolysaccharide in Differentiated Human THP-1 Monocytes Under Hyperglycemic Conditions. A. Lee, J-M. Yun. Chonnam National University, Republic of Korea.


LB341 Oldenlandia diffusa Extracts Exert Anti-Tumor Effects on Human Ovarian Cancer Cells via an Epigenetic Regulator, KDM1B. Y. Lee, J. Lim, J. Joo, S. Park, Y. Park. Ewha Womans University, Republic of Korea, Wonkwang University, Republic of Korea, and Woosuk University, Republic of Korea.

LB342 Vascular Health Effects of a Plant Extract Mixture of Phellinus baumii and Salvia miltiorrhiza Bunge on Postprandial Platelet Hyperactivity in Healthy Subjects: A Randomized, Double-Blind, Placebo-Controlled Crossover Trial and Systematic Approach. Y. Lim, Y.J. Kim, O. Kwon. Ewha Womans University, Republic of Korea, Ewha Womans University School of Medicine, Republic of Korea.

LB343 An Updated Meta-Analysis of Cranberry and Recurrent Urinary Tract Infections in Women. Z. Fu, D. Liska, D. Talan, M. Chung. Tufts University School of Medicine, Biofortis Research and University of California at Los Angeles School of Medicine.


LB350 Effect of Home-Based Aerobic Exercise Training on Quality of Life in Multiple Sclerosis. B. Saed, G. Griffith, S. Wee, R. Klaren, R. Motl, T. Baynard, B. Fernhall. Integrative Physiology Laboratory, University of Illinois at Chicago, Exercise Neuroscience Research Laboratory, University of Illinois at Urbana-Champaign, University of Alabama at Birmingham.


LB352 Regulation of Notch Signaling Pathway by Diallyl Trisulfide in Pancreatic Cancer Cells. S.D. Stan, Y. Du. Purdue University.


LB355 Inhibition of H1299 Human Lung Cancer Cell Proliferation and Survival by Carnosic Acid Is Associated with Akt Inhibition and AMPK Activation. E.L. Tsiani, J. Moore. Brock University, Canada.


LB359 The Relationship Between Insulin Resistance, Antioxidants, and Eye Blink Startle Reflex During International Affective Picture System Presentation. T. Wolf, A. Willette. Iowa State University and University of Iowa.


ASN Nutrition-Related Behaviors


Experimental Biology 2017: Late-Breaking Program


**LB368** Dietary Attitudes and Behaviors of Male Veterans with Multiple Sclerosis (MS). D. Haddii, L. Brenner. Veterans Integrated Service Network 19 and University of Colorado Anschutz Medical Campus.


**LB375** Heat Treatment of Fibers Used as Growth Supplement for Lactobacillus acidophilus and Lactobacillus rhamnosus. A. Santos, A. Santos, C. Gillen, F. Santos. Adventist University of Health Sciences.


**ASN Food Supply and Environment**


**LB382** Kefir Growth in Different Culture Media. M.H. De Oliveira, B.G. Ferrari, F. Becker, J.B. Silva, A.A. Santos Jr., D.C. Duran. Federal University of ABC, Brazil and Faculdades Integradas Coração de Jesus, Brazil.


**LB387** Comprehensive Assessment of Human Health Impacts and Benefits of Fruits and Vegetables in a LCA Context. K.S. Stylianou, P. Fantke, V.L. Fulgoni III, O. Jollivet. University of Michigan, School of Public Health, Technical University of Denmark, Denmark, and Nutrition Impact, LLC.
ASN Vitamins, Minerals, and Bioactives


LB389 Novel Vitamin D-Nanoemulsion Improves Testicular Function of Vitamin D Deficient Rats. N.W. Alruwaili, M.M A. Abulmeaty, A.M. Almajwal, M.F. Elsadek, S. Razak, J.E. Andrade. King Saud University, Saudi Arabia, University of Illinois at Urbana-Champaign and Zagazig University, Egypt.

LB390 Effect of Enteral Docosahexaenoic Acid on Retinopathy of Prematurity During Their Hospital Stay. M. Bernabe-Garcia, P. Dominguez-Vallejo, L. Cruz-Reynoso, A. Villavicencio-Torres, R. Villegas-Silva, P. Inda-Icaza. Instituto Mexicano del Seguro Social, Mexico, Hospital Infantil de Mexico, Mexico and Anahuac University, Mexico.


LB399 Effects of Folic Acid and 5-Methyltetrahydrofolate Supplementation on Folate Metabolism and One-Carbon Transfer Reactions in a Mouse Model. D. Im, N. Bloomen, K-J. Sohn, R. Croxford, Y-I. Kim. St. Michael's Hospital, Canada and University of Toronto, Canada.


LB401 The Influence of Dietary Supplementation of Bacteriophages on Energy and Nutrient Digestibility and Intestinal Microbiota of Pigs. H. Jo, E.B. Kim, G.G. Han, B.G. Kim. Konkuk University, Republic of Korea, Kangwon National University, Republic of Korea, and Seoul National University, Republic of Korea.


LB409 Effect of Aplysin on Intestinal Barrier and Lipid Metabolism of Rats Exposed by Ethanol and Iron. H. Liang, Y. Ma, R. Li, A. Ma. Qingdao University, People's Republic of China.

LB410 Effect of Folate Status on High-Fat Diet-Induced Obese Mice with Chronic Aristolochic Acid Nephropathy. B. Lin, X. Koh, C. Wu, H. Huang. National Taiwan University, Taiwan.

LB411 Effect of Excess Iron Intake on Growth and Intestinal Inflammatory Injury in Rats. Y. Ma, Y. Sun, Y. Jiang, A. Ma. Qingdao University, People's Republic of China.


LB414  Analysis of Serum Ferritin and High Sensitive C Reactive Protein in Patients with Gout. A. Ma, J. Wei, H. Zhang, D. Wu. Qingdao University, People's Republic of China, and Tufts University.


LB416  Beta-Carotene Inhibits Expression of Tumor Necrosis Factor Receptor-Associated Factor 1 and Hyper-Proliferation in Helicobacter pylori-Infected Gastric Epithelial Cells. Y.C. Park, J.W. Lim, H. Kim. Yonsei University, Republic of Korea.


LB420  Inulin-Type Fructans Fiber Supplementation Improves Weight Loss When Used with the USDA's MyPlate Recommendations for Weight Management in Obese Women Attempting to Lose Weight. Y. Salmean. College of Life Sciences, Yaba College of Technology, Nigeria and University of Lagos, Nigeria.


LB425  Docosahexaenoic Acid Inhibits Trypsin Activation and Amylase Release by Activating Adenosine Monophosphate-Activated Protein Kinase in Pancreatic Acinar Cells. Y. Park, J. Lim, H. Kim. Yonsei University, Republic of Korea.


LB428  Cobalamin-Deficiency Results in Altered Partitioning of Mitochondrial One-Carbon Units to Formate. L. MacMillan, G. Tingley, M.E. Brosnan, J.T. Brosnan. Memorial University of Newfoundland, Canada.

ASN Community, Public Health and Global Nutrition


LB430  Gender Differences in Use of Social Media for Health-Related Information. C. Allison, S. Wiggins, W. Yan, W. Zhou, M.D. Olfert, K. Kattelmann, A. Mathews, O. Brown, T. Kidd, T. Horacek, A. White, S. Colby. University of Tennessee, West Virginia University, South Dakota State University, University of Florida, Auburn University, Kansas State University, Syracuse University and University of Maine.


LB434  NSA Nutritional Supplementation Trial of Fruit and Vegetable Extracts and Vascular Function (NTV): Improvement to Microvascular Function Using Laser Doppler Iontophoresis, Following Consumption of Encapsulated Fruit and Veg Powder over 12 Weeks (Compared with Placebo), in Overweight and Obese Human Adults. M. Sayegh, D. Del Rio, S. Ray. Need for Nutrition Education/innovation Programme (NNEdPro) Global Centre for Nutrition and Health, United Kingdom, Nutrition and Vascular Studies Platform—Medical Research Council (MRC) Elsie Widdowson Laboratory, United Kingdom, and University of Parma, Italy.

LB435  Associations Between Depression and Cognitive Function in Turkish Elderly. A. İlhan, P. Bilgic, M. Varli, N. Rakıcıoğlu, N. Hongu. Hacettepe University, Faculty of Health Sciences, Turkey, Ankara University, Faculty of Medicine, Turkey and University of Arizona.

LB436  Relationship Between Muscularity Concerns and Body Checking Behaviors in Turkish Bodybuilders. A. Devrim, P. Bilgic, B. Aslantas, N. Hongu. Hacettepe University, Faculty of Health Sciences, Turkey and University of Arizona.


LB442  The Role of Fruit and Vegetable Concentrates in Alleviating the Growing Burden of Cardiovascular Diseases in USA: Evidence from a Simulation Study. D. Gregori, M.G. Vecchio, C. Minto, S. Zec, M. Lamprecht. University of Padova, Italy, Zeta Research, Ltd., Italy, and Medical University of Graz, Austria.


LB448  Rationale and Design of Theory-Based Nutritional Strategy to Promote Healthy Dietary Habits in Severe Obese Adolescents: Study Protocol for ICAAN (Intervention for Childhood and Adolescent Obesity via Activity and Nutrition) Project. J. Kim, H. Jang, H. Lee, S. Park, Y. Kim, Y. Seo, K. Park, H. Lim. Kyung Hee University, Republic of Korea, Korea National Institute of Health, Republic of Korea, University College, Yonsei University International Campus, Republic of Korea, and Hallym University Sacred Heart Hospital, Republic of Korea.


LB450  Association of Dietary Sugar Intake with Bone Loss, Non-Traumatic Fracture Risk, and All-Cause Mortality in Chinese Elderly: Finding from an 11-Year Longitudinal Study of Mr and Ms OS Hong Kong. Z. Liu. Sun Yat-sen University, People's Republic of China.


**LB454**  Dietary Diversity of Children 6–23 Months Is Limited by Age Related Complementary Feeding Practices as Well as Household Dietary Diversity in Peru, Bangladesh and Sierra Leone. R.C. Robert, H.M. Creed-Kanashiro, M.E. Penny, M. Marin, B. Cottrell.


**LB458**  Trends in Dietary Quality Among Middle-Aged Adults from the Framingham Heart Study. L.M. Troy. University of Massachusetts Amherst.


**LB460**  Genetics of Acute Kidney Injury Markers in Hispanic Children: The Viva La Familia Study. I. Vazquez-Vidal, G. Chittoor, B. Mass, K. Haack, S. Laston, N. Mehta, A.G. Comuzzie, S. Cole, N. Butte, V.S. Voruganti. University of North Carolina at Chapel Hill, Nutrition Research Institute, Texas Biomedical Research Institute, South Texas Diabetes and Obesity Institute, University of Texas Rio Grande Valley School of Medicine, US Department of Agriculture–Agricultural Research Service Children's Nutrition Research Center and Baylor College of Medicine.


**ASN Energy and Nutrient Metabolism**


**LB470**  Transgenerational Effects of Branched Chain Amino Acids Supplement Combined with High Fat Diet in Male Mice. J. Han, Y. Lee, J. Park, Y. Park. Ewha Womans University, Republic of Korea.

**LB471**  Betulinic Acid Decreased *de Novo* Lipogenesis and Lipid Accumulation in Differentiated 3T3-L1 Adipocytes. H.K. Kim, G-W. Go. Kookmin University, Republic of Korea.


**Pathology**

**It's A Dangerous World Out There: Toxic Injury**

**LB475** Attenuation of Obesity by Ornithine Enriched Blueberry Liquid Starter in 3T3-L1 Preadipocyte and High-Fat Diet Fed Obese Mouse Model. S-H. Oh, M. Kim, O-K. Yu, S-G. Kim, Y-S. Cha. Woosuk University, Republic of Korea, and Chonbuk National University, Republic of Korea.


**LB479** Sodium Butyrate Improves Antioxidant Capability of HepG2 Cells Under H2O2-Induced Oxidative Stress. X. Tang, X. Xing, Z. Jiang, Y. Li, Y. Sun, H. Xiao. Jiangnan University, People's Republic of China, University of Massachusetts, and Wuxi No.1 Senior High School, People's Republic of China.


**LB482** A Ketogenic Diet Increases Markers of Mitochondrial Content in a Tissue Specific Manner in Adult Mice. Z. Zhou, K. Hagopian, M. Roberts, D. Tran, G. Perez, K. Kim, J. Ramsey. University of California.


**LB484** Rifampicin and Isoniazid Induced Liver Injury via the Pregnane X Receptor. C.T. Brewer. St. Jude Children's Research Hospital.

**LB485** Alleviation of Paraquat-Induced Oxidative Stress and Pulmonary Fibrosis by Betaine in Rats. J.D. Na, Y.J. Choi, Y.C. Kim. Seoul National University, Republic of Korea.

**Cell and Molecular Therapies**


**LB493** Preliminary Data on the Effects of High Fat Diet, Olive Oil and Vitamin D on Fatty Liver and Muscle in an Experimental Model. F.M. Trovato, G. Musumeci, M. Szychlinska, H. Nsir, G. Magro, L. Salvatorelli, P. Castrogiovanni. University of Catania School of Medicine, Italy, and University of Catania, Italy.

**LB494** Angiopoietin-2 Levels in the Risk Stratification and Mortality Outcome Prediction of Sepsis Associated Coagulopathy. S. Statz, A. Walborn, M. Williams, D. Hoppensteadt, M. Mosier, M. Rondina, J. Fareed. Loyola University Medical Center, University of Indiana and University of Utah School of Medicine.
Mechanisms in Malignancy

LB496 Parathyroid Hormone-Related Protein Stimulates Head and Neck Cancer Cell Growth via RUNX2 Regulation and Serves as a Poor Prognostic Marker in Patients. W-M. Chang, M. Hsiao. Academia Sinica, Taiwan.


LB498 Targeting the Protein-Protein Interaction Between G6t and PLCδ1 Prevents Metastatic Progression in Triple-Negative Breast Cancer. Y. Lin, S. Huang, C. Chen. Taipei Medical University, Taiwan.


Injury and the Host Response


LB502 NOS1 and SOC1 Work as a Switch of Macrophage Functional Phenotypes. C. Blajszczak, C. He, B.N. Gantner, M. Bonini. University of Illinois at Chicago.


LB505 Calcium-Handling of Endothelin A and B Receptors in Coronary Artery upon Post Ischemic Reperfusion Injury in Rats. S.B. Kristiansen, K.A. Haanes, M. Sheykzhade, L. Edvinsson. Rigshospitalet Glostrup, Denmark and University of Copenhagen, Denmark.


On Your Mind: Neurobiology and Neuropathology


Methodologies in Pathobiological Investigation


---

Pharmacology

Cancer Pharmacology


LB525 In Vitro Anti-Proliferative Analysis of Metformin Hydrochloride on Androgen-Sensitive (LNCaP) and Androgen-Insensitive (PC-3) Human Prostate Cancer Cell Lines. D. Adeleji, B. Hinton, G. Payne. Elizabeth City State University.

LB526 Exploiting ROS-Generating Mechanisms for IFN-g Therapy of Renal Cell Carcinoma. S. Shahrokh, P.B. Makhov. Fox Chase Cancer Center.


LB531 STK11 Loss Stabilizes MCL1 and Confers Targetable Drug Resistance in KRAS Mutant NSCLC. M. Kahle, E. Akbay, C. Christensen, L. Sholl, J. Becker, M. Soucheray, Z. Chen, L. Pulido, E. Kikuchi, Y. Gao, P. Dennis, W. Qiu, F. Al-Shahrour, N. Johnson, M. Awad, J. Carretero, K. Wong, T. Shimamura. Loyola University Chicago, Dana-Farber Cancer Institute, Brigham and Women's Hospital and Harvard Medical School, University of Valencia, Spain, Hokkaido University Hospital, Japan, Translational Bioinformatics Unit, Clinical Research Programme, Spanish National Cancer Research Centre, Spain and Fox Chase Cancer Center.


LB536  Involvement of Polo-Like Kinase 1 (Plk1) in Tumor Growth and Epithelial-Mesenchymal Transition of Tamoxifen-Resistant Breast Cancer. **S.B. Jeong, K.W. Kang.** Seoul National University, Republic of Korea.

**Cardiovascular Pharmacology**

LB537  Measurement of the Binding of Fluorescent Variants of VEGF165a, VEGF165b and VEGF121a to VEGFR2 Using NanoBRET in HEK293 Cells. **C. Peach, L. Kilpatrick, M. Robers, R. Ohana-Friedman, J. Woolard, S. Hill.** University of Nottingham, United Kingdom, and Promega Corporation.


LB541  Enhanced Lipoxygenase/LTD4 Activity Accounts for the Exaggerated Hypertensive and Nephrotic Effects of Cyclosporine Plus Indomethacin in Rats. **M.W. Helmy, M.M. Helmy, M.M. El-Mas.** Damahour University, Egypt, and Alexandria University, Egypt.

LB542  Dynamic Regulation of Apoptosis, Autophagy, and Necroptosis in Ischemic Postconditioning Cardioprotection: The Importance of Adiponectin. **Q. Zhu, H. Li, X. Xie, Z. Ge, Q. Lian, R. Ge, Z. Xia.** The Second Affiliated Hospital and Yuying Children's Hospital of Wenzhou Medical University, People's Republic of China, and The University of Hong Kong, Hong Kong.

LB543  A Novel Hydrogen Sulfide Donor, JK1, Protects the Heart Against Cardiac Hypertrophy and Heart Failure. **Z. Li, C.L. Organ, J. Kang, M. Xian, D.J. Lefer.** Louisiana State University Health Sciences Center and Washington State University.


LB545  LCZ696, the First-in-Class Angiotensin Receptor Neprilysin Inhibitor, Improves Vascular Reactivity in Hypertensive Rats in the Setting of Heart Failure. **R.K. Trivedi, Z. Li, D.J. Polhemus, D. Yoo, H. Koibaya, T.T. Goodchild, D.J. Lefer.** Louisiana State University Health Sciences Center New Orleans.


LB549  SRY-Box 9 (SOX9): A Novel Binding Partner of Cardiac Muscle-Specific A-Kinase Anchoring Protein (mAKAP) Signalosome. **S. Suryavanshi, S. Bark, B.K. McConnell.** University of Houston.


LB551  Use of Bioluminescence Resonance Energy Transfer (BRET) and Fluorescent Vascular Endothelial Growth Factor (VEGF) Isoforms to Characterize the Molecular Pharmacology of Neuropilin-1 Receptors in Living HEK293 Cells. **L. Kilpatrick, M. Robers, R. Friedman-Ohana, K. Zimmerman, J. Woolard, S. Hill.** University of Nottingham, United Kingdom, and Promega Corporation.


Experimental Biology 2017: Late-Breaking Program


LB557 Adenosine Receptor Dependent Regulation of Vascular Tone in L-NAME Mouse Model of Hypertension. V.R. Yadav, B. Teng, J.S. Mustafa. West Virginia University.

LB558 Peak Caspase-1 P20 Levels During Acute Myocardial Infarction Correlate with Pre-Existing Hypertension, Age and Post-Infarction Cardiac Dysfunction. M. Greenwood, A. Morgan, S. Na, C. Gold, B. Liang, L. Shapior, B. Liang. University of Connecticut School of Medicine and Quinnipiac University School of Medicine.


LB562 Antidiabetogenic Effects of the Seed Extracts of Picralima nitida. O.M. Ojuola, M.O. Abatan. University of Ibadan, Nigeria.


LB568 Sestrin2 Inhibited the Activation of Hepatic Stellate Cells and Liver Fibrosis via Blocking Transforming Growth Factor-β Signaling. J.H. Yang, S.H. Ki. Chosun University, Republic of Korea.


LB570 mTORC2 Facilitates the Maturation of Protein Kinase C by a Phosphorylation-Independent Mechanism. T.R. Baffi, C.M. Gould, Z. Wang, S. Gutkind, A.C. Newton. University of California at San Diego and Biomedical Sciences Graduate Program.


LB573 Glycosaminoglycans Inhibit Substance P- and IL-33-Stimulated IL-8 and TNF Release from Human-Cultured Mast Cells. A.R. Gross, T.C. Theoharides. Tufts University School of Medicine, Sackler School of Graduate Biomedical Sciences and Tufts University.

Central Nervous System Pharmacology

LB575 Joint Application of N-Acetylcysteine and Allopurinol Reduces Spinal Cord TNF-Alpha Expression and Attenuates Mechanical Allodynia in Diabetic Rats. S. Li, D. Yan, P. Gu, Q. Zhu, C.W. Cheung, M.G. Irwin, C. Yu, Z. Xia. Affiliated Hospital of Stomatology, Chongqing Medical University, People's Republic of China, and The University of Hong Kong, Hong Kong.

LB576 Genome-Wide Tissue Transcriptome Profiling and Ligand Screening Identify Seven Striatum-Specific Human Orphan GPCRs. J.A. Allen, S.R. Raval, R. Yang, S. Xi. University of Texas Medical Branch, and Pfizer, Inc.

LB577 Protective Effect of Naringenin Against Arsenic Trioxide Induced Oxidative Stress. R.S. Peruru, S. Dodoala. Sri Padmavati Mahila Visvavidyalayam, India.


LB580 Phytopharmacological Evaluation of Chamomile (Matricaria recutita) for Indirect Modulation of the Endocannabinoid System. A.T. El-Alfy, K. Manlimos, N. Patel, J. Kendrek, E. Abourashed. Chicago State University, University of South Carolina School of Medicine Greenville and Medical College of Wisconsin.

LB581 Effect of Fatty Acid Amide Hydrolase (FAAH) Inhibitors Isolated from Nutmeg on Anxiety. A.T. El-Alfy, A. Jeon, H. An, J. Kendrek, E. Abourashed. Chicago State University, University of South Carolina School of Medicine Greenville and Medical College of Wisconsin.

LB582 The Atypical Antidepressants Mianserin and Mirtazapine Inhibit TNF-α-Induced Apoptosis via LPA, in Mouse HT22 Hippocampal Cells. M.C. Olianas, S. Dedoni, P. Onali. University of Cagliari, Italy.


LB584 Neuroprotective Potential of Transient Receptor Potential Melastatin-2channel Inhibitor Flufenamic Acid in Experimental Model of Focal Cerebral Ischemia. B. Medhi, D. Harikrishnareddy. Post Graduate Institute of Medical Education and Research, India.

LB585 Large Volume Intrathecal Bolus: CSF Pressure and Implications for Safety. V. Belov, J. Appleton, B. Durcanova, M. Papiovo. Massachusetts General Hospital, Harvard Medical School and Shriners Hospitals for Children.

LB586 Acetate, the Metabolite of Ethanol, Increases Cytosolic Calcium and mRNA Expression Levels of EGR1 and TNFα in Dopaminergic Like PC12 Cells. J.E. Behnke, A.D. Chapp, K.M. Driscoll, Z. Shan, Q. Chen. Michigan Technological University.

LB587 Effects of Chronic Pramipexole on AMPA Receptor Trafficking and Akt/GSK-3β Signaling in a Rat Model of Parkinson’s Disease. M.S. Kase, C. Napier, A. Persons. Rush University Medical Center.


LB589 Norclozapine Reduces Beta Amyloid1-42 Levels and Increases ChAT Levels in 3xTg-AD Female Mice. A. Burkart, P.E. Potter, D.C. Jones. Midwestern University.


LB594 Behavioral and Pharmacokinetic Properties of the Putatively Inert DREADD Ligand Clozapine-N-Oxide (CNO) in Rats and Mice. J.H. Porter, D.F. Manvich, K.A. Webster, S.L. Foster, M.S. Farrell, D. Weisshenker. Virginia Commonwealth University, Emory University School of Medicine and University of North Carolina at Chapel Hill School of Medicine.

Drug Discovery and Development


LB600 Effects of (-)-Epigallocatechin Gallate (EGCG) on Proliferation and Viability of Jurkat T-Cells Treated with Ethanol. V. Snitsarev. Montclair State University.


Drug Metabolism andDisposition


LB610 Pharmacokinetics of Cefquinome in Healthy and Pasteurella multocida-Infected Rabbits. S.T. Elazab, D. Schrunk, R.W. Griffith, S.M. Ensley, G. Dell’ Anna, K. Mullin, M.G. Elsayed, M.S. Amer, S.M. El-Nabity, W.H. Hsu. Iowa State University, Mansoura University, Egypt, and Zagazig University, Egypt.


Pharmacogenomics and Translational Pharmacology


Pharmacology Education

LB618 Using Gaming Strategies to Augment Pharmacology Content Retention in a Doctor of Pharmacy Program. A. Malhotra. School of Pharmacy, Pacific University.

Toxicology

LB619 Saikosaponins Induced Hepatotoxicity Through Disruption of Lipid Metabolism and Induction of Oxidative Stress in Mice: A Proteomic Analysis. R. Sun, X. Li, Q. Yang, X. Li, R. Liu. Shandong Academy of Traditional Chinese Medicine, People's Republic of China, and Virginia Commonwealth University.


LB621 The Role of Nrf2 in Primary Human CD4 T Cell Activation and Differentiation. A.E. Turley, J. Zagorski, C.E. Rockwell. Michigan State University.


Pharmacology—Other


Cardiovascular


LB641 Contribution of Beta-Arrestin Signaling on Thyroid Hormone-Induced Cardiac Hypertrophy. C.A. Lino, M.L.M. Barreto-Chaves. University of Sao Paulo, Brazil.

LB642 Angiotensin-(1-7) Prevents Cardiovascular Changes Induced by Hyperthyroidism. N. Senger, M.B. Melo, M.J. Campagnole Santos, R.A. Santos, M.L.M. Barreto-Chaves. University of Sao Paulo, Brazil, and Federal University of Minas Gerais, Brazil.


LB646 The Effect of Vinyasa Yoga on Cardiovascular Risk Factors and Bone Mineral Density in Sedentary Young Adults. M D. Choi, C. Payter, K. Landis-Piwowar, R. Doshi. Oakland University.

LB647 A Regulatory Role for SDF-1/CXCR4 Axis in Promoting TNF-Mediated Cardiac Damage Associated with Alcoholic Cardiomyopathy. J. Little, A. Abad, A. Peeran, G. Haddad, S. Tarzami. Hampton University, Alfaisal University, Saudi Arabia, and Howard University.

LB648 Hypoxic Preconditioning Protects Rat Hearts Against Ischemia/Reperfusion Injury via H2S/TRPA1 Pathway. M-C. Ma, H-S. Huang, Y-S. Chen. Fu Jen Catholic University, Taiwan, National Cheng Kung University Hospital, Taiwan, and National Taiwan University Hospital, Taiwan.


LB650 Mitofilin Knockdown in Rat H9c2 Myoblasts Induces Cell Death by Apoptosis via an AIF-PARP-Dependent Mechanism and Cell Cycle Arrest. M. Lie, N.B. Madungwe, Y. Feng, J.C. Bopassa. University of Texas Health Science Center at San Antonio.

LB651 Vaping to Vascular Damage: The Role of E-Cigarettes on Vascular Function. S. Clayton, E. Devallance, K. Branyan, C. Pitzer, M. Breit, H. Hoskinson, P. Klinkhachorn, B. Erdreich, P. Chantler, M. Offert. West Virginia University—School of Medicine, West Virginia University and College of Engineering and Mineral Resources.


LB653 Inhibitory Role of BMP4 on the PDGF-Induced Proliferation and Collagen Synthesis in PASMCs. L. Kovacs, P. Cai, Y. Su. Augusta University and Charlie Norwood Veterans Affairs Medical Center.


LB655 Perinatal Taurine Supplementation Prevents Metabolic and Cardiovascular Effects of Maternal Dyslipidemia in Adult Rat Offspring. A. Thaeomor, C. Tangnoi, J. Chaisakul, S. Seanthaweesuk, N. Somparn, S. Roysommuti. Suranaree University of Technology, Thailand, Phramongkutklao College of Medicine, Thailand, Thammasat University, Rangsit Campus, Thailand, and Khon Kaen University, Thailand.


LB662  Sirtuin-1 Deacetylation of p53 Plays a Role in Shear Stress-Induced Autophagy in Endothelial Cells. P. Ting, L. Wu, D.L. Wang. Tzu Chi University, Taiwan.

LB663  Time-Dependent Effects of Training on Cardiac Renin Angiotensin System (RAS): Protection Against Oxidative Stress, Inflammation and Pathological Cardiac Remodeling. S.D. Silva Junior, Z. Jara, R. Moreira, D. Casarini, L. Michelini. University of Sao Paulo, Brazil, and Federal University of Sao Paulo, Brazil.


LB668  The Paracrine Effects of Satellite Cells on Collateral Vessel Formation. L. Hansen, W. Liu, G. Joseph, D. Weiss, W. Taylor. Emory University, Atlanta Veterans Affairs Medical Center and Georgia Institute of Technology.


LB670  Cardiovascular Regulation in Mice with Attenuation or Overexpression of the Vesicular Acetylcholine Transporter (VACHT) Gene: Parasympathetic Function in Heart Failure. G.C.S.V. Tezini, D.P. Martins Dias, M. Oliveira, S. Guatimosim, M.A.M. Prado, H.C. Salgado. Ribeirão Preto Medical School, University of São Paulo, Brazil, Federal University of Minas Gerais, Brazil, Robarts Research Institute and The University of Western Ontario, Canada.


LB672  Gender Differences of Heart Rate Variability in College Age Students. A. Toth, S. Melton. West Chester University.


Cell and Molecular Physiology


LB684  SMAD3 Contributes to Lung Vascular Remodeling in Pulmonary Arterial Hypertension via MRTF Disinhibition. D. Zabini, E. Granton, S. Breuils Bonnet, S. Bonnet, N. Morrell, K. Connelly, S. Provencher, B. Ghanim, W. Klepetko, A. Olschefski, A. Kapus, W. Kuebler. Ludwig Boltzmann Institute for Lung Vascular Research, Austria, St. Michael's Hospital, Canada, Laval University, Canada, University of Cambridge, United Kingdom, Medical University of Vienna, Austria, and Charité-Universitätsmedizin Berlin, Germany.


LB686  Lipopolysaccharide Increases the Expression Level of the Aquaporin-4 Water Channel. N. Sugimoto, N. Nishimura, N. Ohnishi, T. Matsumoto, T. Kitaura, O. Shido, A. Yachie. Kanazawa University, Japan, Shimane University, Japan, Aichi Medical University, Japan, Nihon Fujishi University, Japan, Mein Prefectural College of Nursing, Japan, and Chukyo University, Japan.


LB693  Lipopolysaccharide Induced Activation of VRAC (LRRC8) in Nodose Neurons Is Dependent on TLR4 Receptor Mediated ROS Generation. R. Wang, Y. Lu, M.Z. Cicha, M.W. Chapleau, F.M. Abboud. The University of Iowa and Veterans Affairs Medical Center.


LB700 Brain Microvascular Endothelial Cell Activation and Barrier Disruption in a Mouse Model of Psychological Resilience. L.M. Cefalu, G.E. Bieniek, R.M. Cain, D.H. Ho. Tripler Army Medical Center.

LB701 Lipopolysaccharide-Induced Activation of Bone Marrow-Derived Macrophages Disrupts Brain Microvascular Endothelial Cell Function in a Mouse Model of Psychological Resilience. G.E. Bieniek, L.M. Cefalu, R.M. Cain, D.H. Ho. Tripler Army Medical Center.

Central Nervous System (CNS)


LB704 Mechanisms Underlying hPMSC-Based Protection on Human Brain Endothelial Cells. M. Barzegar, A. Minagar, Y. Wang, J. Yun, C. Boyer, P-O. Couraud, J. Alexander. Louisiana State University Health Sciences Center and Université Paris Descartes, France.


LB707 Acute Exercise Rescues Cortex BDNF Signaling in High Fat Fed Male Mice. B. Baranowski, W.T. Peppler, R.E K. MacPherson. Brock University, Canada, and University of Guelph, Canada.


LB709 NMDA Receptor 2B Subunit and BK Channel May Affect Mechanical Allodynia by Regulating the Activity of Enkephalinergic Neurons in the Spinal Dorsal Horn. S. Tanaka, E. Kato, T. Kofuji, T. Fukushima, Y. Hori. Dokkyo Medical University, Japan, and Kyorin University School of Medicine, Japan.

Comparative and Evolutionary Physiology


LB711 Insulin Signaling During Immune Challenges: Friend or Foe? L.D. Cambron, K.J. Greenlee. North Dakota State University.


Biomedical Engineering


Endocrinology and Metabolism


LB715 Effects of Amaranth (Amaranthus esculantus) and Canola (Brassica napus) Oil Supplementation on Oxidative Metabolism of Neutrophils in Patients with Obesity. K. Dominika, K. Alina, R. Rafal, W. Malgorzata, G. Marian, S. Maki, B. Andrzej, W. Janusz. Poznan University of Medical Sciences, Poznan, Poland, and Aichi Medical University, Japan.

LB717 Transcriptional Factor-X and Related Small Molecule Herbal Inducer, ST32DB, Against Obesity and Metabolic Dysfunction Through Lipogenic Transcription Factor ChREBP and White Adipocytes Trans-Differentiation Axis. H-H. Chen, H. Lin. Taipei Medical University, Taiwan.


LB720 Investigation of Heat Production Deficiencies During Cold Stress and a Nonshivering Thermogenesis Challenge in Mice with a Deletion in N2A Titin. C.A. Miyano, C.L. Buck, K. Nishikawa. Northern Arizona University.


LB723 Mechanisms Underlying the Appetite-Regulatory Hormonal Response to High-Intensity Exercise: Potential Role of Lactate and Interleukin-6. H. Islam, L.K. Townsend, G.L. McKie, P.J. Medeiros, B.J. Gurd, T.J. Hazell. Queen's University, Canada, University of Guelph, Canada and Wilfrid Laurier University, Canada.


LB731 Regulation of Glucose Metabolism by Contractile Activity in Human Skeletal Muscle Myotubes from Severely Obese Individuals. S. Park, J. Houmard. East Carolina University.


Environmental and Exercise Physiology


LB736 Examining the Impact of Different Exercise Protocols on PGC-1α and FNDC5 mRNA Expression in Human Skeletal Muscle. J.T. Bonafiglia, B.A. Edgett, T.D. Scribbans, J.P. Little, B.J. Gurd. Queen's University, Canada, University of Manitoba, Canada and University of British Columbia Okanagan, Canada.


LB742  The Effects of Vinyasa Yoga on Cardiovascular and Physical Fitness as Well as Psychological Profiles of Well-Being. M. Choi, C. Marks, K. Landis-Piwowar, C. Payter. Oakland University.

LB743  Human Umbilical Cord Mesenchymal Stem Cells Attenuate Heatstroke Injury in Rats. M. Lin, C. Chang, C. Lin. Chi Mei Medical Center, Taiwan, Meridigen Biotech Co. and Ltd., Taiwan.

LB744  Heatstroke Causes Hypotension by Decreasing Both Mechanical Efficiency and Arterial Elastance in Rat. C. Chang, M. Lin, B. Cheng. Chi Mei Medical Center, Taiwan.


LB746  Attenuated Sweating Responses in Tattooed Skin During a Passive Whole-Body Heat Stress. F.K. Pizze, I.M. Parupia, D.R. Allen, M. Huang, M.J. Luetkemeier, S.L. Davis. Southern Methodist University, Alma College and University of Texas Southwestern Medical Center.


LB748  Regulation of Erythropoietin Expression in Response to Exercise in Mouse and Human Skeletal Muscle. B.A. Edgett, L. Farquharson, N. Romanova, K.R. Brunt, B.J. Gurd, J.A. Simpson. Queen's University, Canada, University of Guelph, Canada, and Dalhousie University, Canada.


Epithelial Transport


LB752  Ammonium Conductance in a Mouse Thick Ascending Limb Cell Line. S. Lee, J. Park, I. Choi. Emory University.

Gastrointestinal and Liver Physiology


LB755  A Role for Focal Adhesion Kinase in the Contraction of Murine Gastric Fundus Smooth Muscle Evoked by Cholinergic Neurotransmission. Y. Xie, B. Perrino. University of Nevada, Reno and School of Medicine.


History of Physiology

LB758  Historical Perspective of Therapeutic Electricity. D.P M. Dias, R. Fazan Jr., H.C. Salgado. Ribeirao Preto Medical School–University of Sao Paulo, Brazil.

Hypoxia

**Microcirculation**


LB763  Role of the Free Fatty Acid 4 Receptor in Endothelial Cell Responses to Oleic Acid. K. Rogers, D. Davis, D. Kurjiaka. Grand Valley State University.


**Muscle Biology**

LB766  Curcumin Reduces Muscle Damage and Soreness Following Muscle-Damaging Exercise. R. Jäger, A.R. Caldwell, E. Sanders, J.B. Mitchell, J. Rogers, M. Purpura, J.M. Oliver. Increnovo LLC, Texas Christian University, and Summit Analytical LLC.


LB768  Limited Activity-Dependent Changes in NMJ Structure and Function During Aging. S. Barbat-Artigas, R. Robitaille. Université de Montréal, Canada, and Groupe de Recherche sur le Systeme Nerveux Central, Canada.


LB771  Vastus Lateralis Motor Unit Firing Rate Statistics During Fatigue in Younger Versus Older Adults. M.S. Stock, J.A. Mota. University of Central Florida and University of North Carolina at Chapel Hill.


LB773  KLF15 Is Modulated by Leucine in Skeletal Muscle Submitted to Immobilization in Rats. F.A. Graça Zuanazzi, M. Bento, J.G. Silvestre, A.S. Moriscot. Institute of Biomedical Sciences, University of São Paulo, Brazil.


LB775  CTFR-Associated ATP Release in Neonatal and Adult Skeletal Myoblasts. T.H.E. Wu, H.J. Ballard. The University of Hong Kong, Hong Kong.

LB776  A Possible Role of Skeletal Muscle-Derived Adiponectin in the Regulation of Skeletal Muscle Mass. K. Goto, R. Ito, M. Higa, S. Yokoyama, T. Sugiura, H. Miyata, Y. Ohira, T. Yoshioka. Graduate School of Health Sciences, Toyohashi Sozo University, Japan, Yamaguchi University, Japan, Graduate School of Sport and Health Science, Doshisha University, Japan, and Hirosaki Gakuin University, Japan.


LB779  Anti-Inflammatory Cytokine Receptor Prevents Muscle Atrophy. Y. Kwon, Y. Son, S. Park, J. Lee. Dongguk University, Republic of Korea.

**Neural Control and Autonomic Regulation**

*LB780*  Autonomic Cardiovascular Response During Post-Occlusive Reactive Hyperaemia Test Comparing Healthy and Sickle Cell Anemic Patients. **R. Carrazana-Escalona, M. Sanchez-Hechavarria, M. Planas-Rodriguez, A. Fernández García, I. Cutillo-Clavel, Pascau-Simon, J.M. Martín-González, P. Connes.** Medical Sciences University of Santiago de Cuba, Cuba, University of Oriente, Cuba, University of Las Palmas de Gran Canaria, Spain, Institut Universitaire de France–Claude Bernard University Lyon 1, France, and Metropolitan.

*LB781*  The Role of Hippo Signaling Pathway on Muscle Wasting in ApcMin/+ Mice: A Pilot Study. **J.L. Gooden, B.W. Lim, S. Sato.** University of Louisiana at Lafayette.


*LB783*  Cigarette Smoke Exposure Induces Diaphragm Atrophy That Partially Regresses Following Cessation. **A. Foster, M.R. Stampfli, J.A. Simpson.** University of Guelph, Canada, and McMaster University, Canada.

*LB784*  Muscle ULK1 and ULK2 Modulate Different Aspects of Autophagy and Are Required for Atrophy During Fasting. **C. Mere, J. Fuqua, J. Blomme, V. de Melo, A. Kronemberger, V.A. Lira.** University of Iowa and Universidade Federal de Sergipe, Brazil.


*LB787*  Recovery from Fatigue and Injury in Rat Muscle Imbedded with Heavy Metals. **L. Michaelson, R.M. Lovering, C.E. Kasper.** Department of Veterans Affairs, Uniformed Services University of the Health Sciences, and University of Maryland School of Medicine.


*LB789*  The Role of IP-10 in Chronic Fatigue Syndrome. **A. McErdle, A. Gusnanto, K. Earl, G. Sakellariou, C. Lawton, D. Owens, G. Close, M. Beadsworth, L. Dye.** University of Liverpool, United Kingdom, University of Leeds, United Kingdom, and Liverpool John Moores University, United Kingdom.

*LB790*  Impact of Metaboreflex Activation on Cerebrovascular Reactivity Index in Healthy Young Men. **P.M. Maia-Lopes, A.L. Teixeira, D. Antonino, M.C. Souza, D.R. Ricardo, P.S. Ramos, L.C. Vianna.** University of Brasilia, Brazil and Faculty of Medical and Health Sciences (SUPREMA), Brazil.

*LB791*  Neurons of the Arcuate Nucleus in Mice Express Angiotensinogen. **S.A. Sapouckey, K.E. Claflin, K.N. Gibson-Corley, J.L. Grobe.** University of Iowa.


*LB793*  Deletion of Brain-Specific Isoform of Renin (Renin-b) Increases Resting Metabolic Rate by Stimulating Brown Adipose Tissue Sympathetic Nerve Activity. **P. Nakagawa, J. Gomez, K. Shinohara, D.A. Morgan, B.J. Weidemann, J.L. Grobe, K. Rahmouni, C.D. Sigmund.** University of Iowa.

*LB794*  Role of GABA Receptors in the Postganglionic Regulation of Salivation. **J. Lee, D. Giovannucci.** University of Toledo College of Medicine.

*LB795*  Rats Deficient in Tryptophan Hydroxylase 2 (SST<sup>−/−</sup>) Rats) Show Altered Pulmonary Neuroendocrine Cells (PNECs), Reduced Resting Ventilation and Altered Hypoxic and Hypercapnic Chemoreflexes. **G.C. Mouradian, M. Dillard, K. Kaplan, G. Thuku, N. Uche, M.R. Hodges.** Medical College of Wisconsin.

*LB796*  Insulin Increases Respiration Rate in Healthy Young Men. **T.C. Barbosa, S.W. Holwerda, C.N. Young, J.P. Thyfault, P.J. Fadel.** University of Texas Arlington, University of Iowa, George Washington University and University of Kansas Medical Center.

*LB797*  Cholinergic Signaling in the Forebrain Regulates Peripheral Inflammation. **V.A. Pavlov, K.R. Lehner, S.S. Chavan, V.F. Prado, M.A.M. Prado, K.J. Tracey.** Hofstra Northwell School of Medicine at Hofstra University, The Feinstein Institute for Medical Research, Robarts Research Institute, Canada, and The University of Western Ontario, Canada.

*LB798*  Transduction of Sympathetic Nerve Activity to Blood Pressure in Type 2 Diabetes Patients. **B.E. Young, S.W. Holwerda, J.R. Vranish, C.E. Newby, D.M. Keller, E.C. Hart, P.J. Fadel.** University of Texas at Arlington, University of Iowa and University of Bristol, United Kingdom.

**LB802**  Orexin A Receptor 1 (OX1R) Activation Increases CamK2 Expression in PC12 Cells. Y. Fan, E. Jiang, Q. Chen, Z. Shan. Michigan Technological University, and Xi'an Jiaotong University, People's Republic of China.

**LB803**  Slicing Orexin Receptor 1 in Paraventricular Nucleus Decreased Hypertension in Obesity Zucker Rats. J-J. Zhou, Y. Zhang, D-P. Li. MD Anderson Cancer Center, and Hebei Medical University, People's Republic of China.


**LB805**  Integrated Sigma Dynamics Quantum Energy Therapy Presented by Mathematical Function and Matrices in Immunologic Stimulation. G.P. Einstein, O.L. Tulp. Einstein Medical Institute and University of Science, Arts, and Technology Montserrat.

**Nutrition Physiology**


**LB811**  Excessive Thiol Nitrosylation Predisposes to Western Diet-Induced Redox Imbalance and Erectile Dysfunction. J. La Favor, D. Soetkamp, V. Venkatraman, T. Bivalacqua, J. Van Eyk, A. Burnett. Johns Hopkins University and Cedars-Sinai Medical Center.


**Physiological Genomics**

**LB813**  The Effects of Acetate on Enhancing the Proliferation and Preadipocyte Differentiation of Stromal Vascular Cells Isolated from Hanwoo Beef Cattle. D. Baatar, T.G. Wandita, J.F. dela Cruz, S.G. Hwang. Hankyong National University, Republic of Korea, and University of the Philippines, Philippines.

**Renal Physiology**


**LB815**  Progression of Experimental Autoimmune Encephalomyelitis Is Associated with Up-Regulation of Major Sodium Transporters in the Mouse Kidney Cortex Under a Normal Salt Diet. X. Zhou, B. Packialakshmi, Y. Xiao, S. Nurmukhambetova, J.R. Lees. Unformed Services University.


**LB819**  Human and Murine Precision-Cut Kidney Slices as a Tool to Study the Inflammatory Pathogenesis of Renal Disease. H.A.M. Mutsaers, E.G.D. Stribos, R. Norregaard, P. Olinga. University of Groningen, Netherlands and Aarhus University, Denmark.


**Respiration**


**LB823** The Local Vascular Activity of Norepinephrine (NE) in Renal Perivascular Adipose Tissue (PVAT). C.B. Restini, R. Burnett, G.D. Fink, S.W. Watts. Michigan State University and University of Ribeirao Preto, Brazil.


**LB826** Chloroquine Is a Potent Pulmonary Vasodilator That Attenuates Hypoxia-Induced Pulmonary Hypertension. K. Wu. Medicine.


**LB828** Human Immunodeficiency Virus Transgene Expression (HIV-1 TG) Decreases MicroRNAs Targeting 5-Lipoxygenase (ALOX5) and Increases Endothelial Dysfunction. B. Kang, S. Chang, J. Ma, C. Hart, R.L. Sutliff. Atlanta Veterans Affairs and Emory University Medical Centers.

**LB829** P2X3 Receptor Antagonism Reduces the Occurrence of Apnoeas in Newborn Rats. P.L. Katayama, I. Charles, W. Pijacka, A. Abdala, H.C. Salgado, A.P. Ford, J.F R. Paton. Ribeirão Preto Medical School, University of São Paulo, Brazil, University of Bristol, United Kingdom, and Afferent Pharmaceuticals.


**LB831** Expiratory Muscle Activation via High Frequency Spinal Cord Stimulation. K.E. Kowalski, J.R. Romaniuks, S.W. Brose, M.A. Richmond, T. Kowalski, A.F. DiMarco. MetroHealth Medical Center, Case Western Reserve University, and VA Medical Center.


**LB833** Hypoxia and Endothelin-1 Decrease Expression of the Extracellular Matrix Protein, Cartilage Oligomeric Matrix Protein, a Potential Modulator of Iron Metabolism in Pulmonary Arteries. H. Yu, M.S. Wolin. New York Medical College, and Harbin Medical University–Daqing, People's Republic of China.


**LB835** Mas Antagonist Prevents the Anti-Inflammatory Effect of Exercise in a Model of Chronic Allergic Lung Inflammation. M.J. Campagnole-Santos, J.F. Gregorio, G.S. Magalhaes, D. Motta-Santos, P. Casssini-Vieira, L. Barcelos, M.G. Rodrigues-Machado, M.A. Vieira, R.A. Santos. Federal University of Minas Gerais, Brazil, and The Faculty of Medical Sciences of Minas Gerais, Brazil.


**Sex Differences in Physiology**

**LB841** Gender Differences on Heart Rate Variability of Subjects Exposed to Regular Resistance Training Routine. E.S.V. Ramalho, E.L. Souza-Junior, M. Magnani, V.A. Braga. Federal University of Paraiba, Brazil.


**LB844** Sex Differences in the Role of Urothelium in Rat Bladder Contractile Function. T. Szasz, B. Burgess, R.C. Webb. Augusta University.


**Teaching of Physiology**

**LB848** Constructing 3-Dimensional Models of Sensory and Motor Tracts of the Spinal Cord as an Active Learning Technique. S. Knight. American University.

**LB849** Inserting Quantitative Literacy Into the Human Physiology Lab Curriculum. J. Krontiris-Litowitz. Youngstown State University.


**Water and Electrolyte Homeostasis**

**LB854** Neuroadaptive Events in Adult Offspring Induced by Perinatal Chronic Stimulation of the Renin-Angiotensin System (RAS). A.F. Macchione, F. Dadam, J. Antunes-Rodrigues, L. Vivas. Inimec-Conicet-Universidad Nacional de Córdoba, Argentina, and University of São Paulo/Faculdade de Medicina de Ribeirão Preto, Brazil.


**LB856** Measurement of Body Fluid Distribution with Posture Change Using Segmental Bioelectrical Impedance Analysis. N. Nishimura, N. Sugimoto, N. Ohnishi, T. Matsumoto, Y. Masuo, S. Iwase. Aichi Medical University, Japan, Nihon Fukushi University, Japan, Kanazawa University, Japan, Mie Prefectural College of Nursing, Japan, and Chukyo University, Japan.


<table>
<thead>
<tr>
<th>Authors</th>
<th>Abstract Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahn, Y. S., LB216</td>
<td></td>
</tr>
<tr>
<td>Aihello, I., LB706</td>
<td></td>
</tr>
<tr>
<td>Ainslie, G. R., LB509</td>
<td></td>
</tr>
<tr>
<td>Aijbade, T. O., LB620</td>
<td></td>
</tr>
<tr>
<td>Aka, C. A., LB34</td>
<td></td>
</tr>
<tr>
<td>Akbari, M., LB296</td>
<td></td>
</tr>
<tr>
<td>Akbay, E., LB531</td>
<td></td>
</tr>
<tr>
<td>Akhavan, N. S., LB325, LB346</td>
<td></td>
</tr>
<tr>
<td>Akhter, N., LB6</td>
<td></td>
</tr>
<tr>
<td>Akkad, H., LB514</td>
<td></td>
</tr>
<tr>
<td>Akman, A., LB238</td>
<td></td>
</tr>
<tr>
<td>Akobundu, B., LB499</td>
<td></td>
</tr>
<tr>
<td>Akoja, J. O., LB483</td>
<td></td>
</tr>
<tr>
<td>Akolkar, G., LB643</td>
<td></td>
</tr>
<tr>
<td>Al Sadat, N., LB303</td>
<td></td>
</tr>
<tr>
<td>Alamdari, N., LB275</td>
<td></td>
</tr>
<tr>
<td>Alanzai, W., LB817</td>
<td></td>
</tr>
<tr>
<td>Alavi, S., LB438</td>
<td></td>
</tr>
<tr>
<td>Aldana-Mendoza, J. A., LB71, LB84</td>
<td></td>
</tr>
<tr>
<td>Al-Dwairi, A., LB215</td>
<td></td>
</tr>
<tr>
<td>Alexander, J., LB704</td>
<td></td>
</tr>
<tr>
<td>Alexander, L., LB764</td>
<td></td>
</tr>
<tr>
<td>Alfafara, C., LB353, LB354</td>
<td></td>
</tr>
<tr>
<td>Alfano, R., LB514</td>
<td></td>
</tr>
<tr>
<td>Alfant, R. F., LB223, LB251</td>
<td></td>
</tr>
<tr>
<td>Alghamdi, A. A., LB623</td>
<td></td>
</tr>
<tr>
<td>Alharghi, A. S. M., LB293</td>
<td></td>
</tr>
<tr>
<td>Al-Hassan, J. M., LB231</td>
<td></td>
</tr>
<tr>
<td>Alina, K., LB715</td>
<td></td>
</tr>
<tr>
<td>Alla, P., LB685</td>
<td></td>
</tr>
<tr>
<td>Allaire, J., LB466</td>
<td></td>
</tr>
<tr>
<td>Allaway, D., LB467</td>
<td></td>
</tr>
<tr>
<td>Allen, D. R., LB746</td>
<td></td>
</tr>
<tr>
<td>Allen, J. A., LB576, LB588</td>
<td></td>
</tr>
<tr>
<td>Allen, L., LB418</td>
<td></td>
</tr>
<tr>
<td>Allen, M., LB25</td>
<td></td>
</tr>
<tr>
<td>Allen, R., LB609</td>
<td></td>
</tr>
<tr>
<td>Allison, C., LB430</td>
<td></td>
</tr>
<tr>
<td>Allison, D. B., LB363</td>
<td></td>
</tr>
<tr>
<td>Almajwal, A. M., LB389</td>
<td></td>
</tr>
<tr>
<td>Almassal, L., LB237</td>
<td></td>
</tr>
<tr>
<td>Almeida, S. A., LB671</td>
<td></td>
</tr>
<tr>
<td>Almendros, I., LB838, LB839</td>
<td></td>
</tr>
<tr>
<td>Almstrand, A., LB230</td>
<td></td>
</tr>
<tr>
<td>Al-Muhtasib, N., LB596</td>
<td></td>
</tr>
<tr>
<td>Alokaly, A. A., LB54</td>
<td></td>
</tr>
<tr>
<td>Alrouwaili, N. W., LB388, LB389</td>
<td></td>
</tr>
<tr>
<td>Al-Shahrou, F., LB531</td>
<td></td>
</tr>
<tr>
<td>Altabarizano-Sarmiento, D. O., LB637</td>
<td></td>
</tr>
<tr>
<td>Alvarado, C., LB100</td>
<td></td>
</tr>
<tr>
<td>Alvarado, J., LB209</td>
<td></td>
</tr>
<tr>
<td>Alvarez, A., LB649</td>
<td></td>
</tr>
<tr>
<td>Alvarez-Alvarado, S., LB325</td>
<td></td>
</tr>
<tr>
<td>Alvira, C. M., LB73, LB694</td>
<td></td>
</tr>
<tr>
<td>Alyousif, Z., LB464</td>
<td></td>
</tr>
<tr>
<td>Ambardaker, A., LB654</td>
<td></td>
</tr>
<tr>
<td>Amer, M. S., LB610</td>
<td></td>
</tr>
<tr>
<td>Amir, J., LB552</td>
<td></td>
</tr>
<tr>
<td>Amor, A. M., LB610</td>
<td></td>
</tr>
<tr>
<td>Ambrosiphymolth, P., LB527</td>
<td></td>
</tr>
<tr>
<td>Amundson, K., LB431</td>
<td></td>
</tr>
<tr>
<td>An, H., LB581</td>
<td></td>
</tr>
<tr>
<td>An, Y. J., LB407</td>
<td></td>
</tr>
<tr>
<td>Apantharam, V., LB626</td>
<td></td>
</tr>
<tr>
<td>Ansooy, S., LB483</td>
<td></td>
</tr>
<tr>
<td>Anastasios, N. C., LB588, LB593</td>
<td></td>
</tr>
<tr>
<td>Anashvili, A. P., LB708</td>
<td></td>
</tr>
<tr>
<td>Andersen, C. J., LB379</td>
<td></td>
</tr>
<tr>
<td>Anderson, D. R., LB689</td>
<td></td>
</tr>
<tr>
<td>Anderson, E., LB714</td>
<td></td>
</tr>
<tr>
<td>Anderson, P., LB259</td>
<td></td>
</tr>
<tr>
<td>Anderson, R. M., LB503</td>
<td></td>
</tr>
<tr>
<td>Andrade, J., LB388, LB389</td>
<td></td>
</tr>
<tr>
<td>Andre, V., LB131</td>
<td></td>
</tr>
<tr>
<td>Andrez, B., LB715</td>
<td></td>
</tr>
<tr>
<td>Ann, D. K., LB61</td>
<td></td>
</tr>
<tr>
<td>Ansari, M. N., LB555</td>
<td></td>
</tr>
<tr>
<td>Anthony, J. C., LB289</td>
<td></td>
</tr>
<tr>
<td>Anthony, S. R., LB732</td>
<td></td>
</tr>
<tr>
<td>Antonino, D., LB791</td>
<td></td>
</tr>
<tr>
<td>Antunes-Rodrigues, J., LB854</td>
<td></td>
</tr>
<tr>
<td>Anupam, K., LB162</td>
<td></td>
</tr>
<tr>
<td>Appleton, J., LB585</td>
<td></td>
</tr>
<tr>
<td>Appu, A., LB63</td>
<td></td>
</tr>
<tr>
<td>Archambault, M., LB48</td>
<td></td>
</tr>
<tr>
<td>Archer, A. E., LB719</td>
<td></td>
</tr>
<tr>
<td>Arellano Ahumada, S. N., LB548</td>
<td></td>
</tr>
<tr>
<td>Arendt, N., LB264</td>
<td></td>
</tr>
<tr>
<td>Arentsberg, M., LB317</td>
<td></td>
</tr>
<tr>
<td>Arias, E. B., LB722, LB726</td>
<td></td>
</tr>
<tr>
<td>Arif, D., LB492</td>
<td></td>
</tr>
<tr>
<td>Arjmandi, B. H., LB325, LB346</td>
<td></td>
</tr>
<tr>
<td>Arnatt, C., LB353, LB598, LB599</td>
<td></td>
</tr>
<tr>
<td>Arnhold, K., LB265</td>
<td></td>
</tr>
<tr>
<td>Arnhold, A., LB270</td>
<td></td>
</tr>
<tr>
<td>Arnhold, R., LB256</td>
<td></td>
</tr>
<tr>
<td>Arnholt, S., LB270</td>
<td></td>
</tr>
<tr>
<td>Arshamolth, F. J., LB483</td>
<td></td>
</tr>
<tr>
<td>Aronovitz, M., LB845</td>
<td></td>
</tr>
<tr>
<td>Arora, A., LB643</td>
<td></td>
</tr>
<tr>
<td>Arellano Ahumada, S. N., LB548</td>
<td></td>
</tr>
<tr>
<td>Arshamolth, F. J., LB483</td>
<td></td>
</tr>
<tr>
<td>Aronovitz, M., LB845</td>
<td></td>
</tr>
<tr>
<td>Arora, A., LB832</td>
<td></td>
</tr>
<tr>
<td>Arroyo, A., LB271</td>
<td></td>
</tr>
<tr>
<td>Arroyo, A., LB832</td>
<td></td>
</tr>
<tr>
<td>Aryan, C., LB14</td>
<td></td>
</tr>
<tr>
<td>Arvy, A. E., LB441</td>
<td></td>
</tr>
<tr>
<td>Arzumanyan, D., LB270</td>
<td></td>
</tr>
<tr>
<td>Arzumanyan, L., LB270</td>
<td></td>
</tr>
<tr>
<td>Asante, T., LB42</td>
<td></td>
</tr>
<tr>
<td>Asano, N., LB438</td>
<td></td>
</tr>
<tr>
<td>Asano, N., LB438</td>
<td></td>
</tr>
<tr>
<td>Asano, N., LB438</td>
<td></td>
</tr>
<tr>
<td>Ashrafi, S., LB223</td>
<td></td>
</tr>
<tr>
<td>Aslanse, S., LB346</td>
<td></td>
</tr>
<tr>
<td>Assadi-Porter, F. M., LB310</td>
<td></td>
</tr>
<tr>
<td>Assim, D., LB361</td>
<td></td>
</tr>
<tr>
<td>Atcherley, C., LB579</td>
<td></td>
</tr>
<tr>
<td>Atchere, C., LB579</td>
<td></td>
</tr>
<tr>
<td>Avendano, C., LB370</td>
<td></td>
</tr>
<tr>
<td>Avila Casado, C., LB818</td>
<td></td>
</tr>
<tr>
<td>Awad, M., LB531</td>
<td></td>
</tr>
<tr>
<td>Awusabo-Ase, K., LB447</td>
<td></td>
</tr>
<tr>
<td>Axton, E., LB277</td>
<td></td>
</tr>
<tr>
<td>Ayyappan, P., LB643</td>
<td></td>
</tr>
<tr>
<td>Azarmes, D., LB311</td>
<td></td>
</tr>
</tbody>
</table>

**Index**

This page lists all the authors, along with their respective abstract numbers. Each author's name is followed by their abstract number.
Lawton, C., LB789
Lazar, M., LB257
Leaman, D., LB785, LB786
Leandry, L. A., LB144
Lee, A., LB338, LB339
Lee, A. H., LB659
Lee, C., LB281
Lee, E., LB193, LB340
Lee, F. S., LB145
Lee, H., LB217, LB448
Lee, H. J., LB216
Lee, J., LB550, LB779, LB795
Lee, J. H., LB381, LB468, LB469, LB470
Lee, J. S., LB381
Lee, J. Y., LB407
Lee, K., LB195
Lee, M., LB340
Lee, O., LB358, LB381, LB468
Lee, S., LB340, LB371, LB752
Lee, S. C., LB299
Lee, S. G., LB408
Lee, S. S. T., LB532
Lee, T., LB180
Lee, W. J., LB278
Lees, J. R., LB815
Lefer, D. J., LB543, LB544, LB545, LB546
Leffler, M., LB785, LB786
Leprevost, G., LB136
Lehner, R. K., LB798
Leinninger, G. M., LB184
Leipziger, J. G., LB859
Leng, F., LB52
Lennon, F. E., LB652
Lentz, M., LB256
Leon-Torres, C. A., LB4
Leroy, P., LB485
Leslie, K. K., LB513
Letsinger, A. C., LB210, LB211
Levanovich, P. E., LB649
Levenberg, K. R., LB222
Levensky, D., LB353
Levy, É., LB272
Levy, J., LB270
Levy, P. D., LB649
Lewalle, A., LB713
Lewis, E., LB265
Lewis, K., LB127
Lewis, M., LB522, LB535
Lewis, R. D., LB294
Lewis, R. M., LB301
Levya, K. J., LB72
Li, D., LB288, LB803
Li, G. N., LB92
Li, H., LB511, LB512, LB542
Li, K., LB257
Li, P., LB172
Li, R., LB409
Li, S., LB757
Li, X., LB128, LB619, LB619
Li, Y., LB479, LB638, LB652
Li, Z., LB532, LB543, LB544, LB545, LB546
Lian, Q., LB542
Liang, A., LB253
Liang, B., LB558, LB558
Liang, G., LB497
Liang, H., LB409
Liao, J. K., LB652
Lie, M., LB650
Lightfoot, J., LB210, LB211
Liles, J., LB523
Lim, B. W., LB781
Lim, H., LB448
Lim, J. B., LB341, LB425, LB669
Lim, J. W., LB406, LB416, LB426
Lim, K. L., LB229
Lim, S. S., LB358, LB608
Lim, T. K. H., LB229
Lim, Y., LB217, LB342
Lindahl, A. J., LB63
Lindshield, B. L., LB438
Lingerak, R. A., LB515
Lingerak, R. W., LB80
Lino, C. A., LB641
Lipkin, G., LB99
Lippard, M., LB260
Lira, V. A., LB3784
Liska, D., LB343
Little, J., LB647
Little, J. P., LB736
Litvanc, D., LB86
Litwin, N. S., LB325, LB346
Liu, C., LB782
Liu, J., LB614
Liu, K., LB132, LB181
Liu, L., LB122
Liu, M., LB694
Liu, P. Z., LB237
Liu, R., LB619
Liu, T., LB729
Liu, W., LB81, LB301, LB413, LB668
Liu, X., LB532, LB727
Liu, Y., LB108, LB140, LB236, LB412, LB449, LB512
Liu, Y. F., LB231
Liu, Z., LB337, LB450
Loarca-Piña, G., LB318
Lock, A. L., LB316
Lofigren, I. E., LB459
Loffeld, E., LB344
Logan, C., LB277
Lohman, J., LB110
Lohman, J. M., LB96
Lomas, A., LB762
Loo, S., LB77, LB241
Loomis, E. M., LB72
Loor, J., LB293
Lopera, R., LB692
Lopes, M., LB728
Lopez, M., LB853
Lopez, E. C., LB388
Lopez, H., LB291, LB292
Lopez, R., LB691
Lopez-Villodres, J., LB563
Lorenz-Guerin, J., LB583
Loro, E., LB601
Lough-Stevens, M. J., LB47
Lovelace, A., LB649
Lovering, R. M., LB787
Low, W., LB114
Loza, C., LB445
Lu, Y., LB323, LB693
Luchessi, A. D., LB171, LB208
Luetskemeier, M. J., LB746
Lugner, A., LB36
Lui, K., LB364
Lui, K. J., LB377
Lukefahr, A., LB354
Lumley, L. A., LB629
Lunacek, K., LB165
Lund, K., LB488
Lussier, S., LB60
Luther, K., LB491
Ly, A., LB296
Lyden, T., LB48, LB49
Lynch, J. C., LB8
Lyssiotis, C. A., LB754
Lyu, Y., LB422
Ma, A., LB409, LB411, LB414
Ma, D. W., LB478
Ma, H., LB412, LB413
Ma, J., LB828
Ma, M., LB648
Ma, Q., LB532
Ma, S., LB233, LB635
Ma, T., LB108
Ma, Y., LB409, LB411
Macchione, A. F., LB854
MacDonald, M., LB583
MacDonough, M. T., LB122
Mace, C. E., LB818
Machida, S., LB842
Maucio, A. V., LB698
Maucio, V., LB520
Mackay, K., LB661
Mackintosh, S. G., LB62
MacMillan, A., LB74
MacMillan, L., LB428
MacPherson, B., LB15
MacPherson, R. E., LB707
Maden, M., LB683
Madigan, D., LB22
Madihali, H. A., LB555, LB556
Madungwe, N., LB650
Maeda, K. J., LB857
Maeda, M., LB473
Magalhaes, G. S., LB835, LB836
Magnani, M., LB841
Magro, G., LB493
Maguire, D. R., LB591
Maher, M. A., LB374
Mahgoub, E. O., LB59
Mahmood, A., LB680
Mahmoud, B., LB329
Maia, P., LB522, LB552
Maia-Lopes, P. M., LB791
Maier, B., LB503
Maillard, R. A., LB93
Majeed, S., LB485
Makineni, S., LB111
Makhov, P. B., LB28
Maki, K., LB289
Maki, K. C., LB283, LB284
Maki, S., LB715
Makkay, G., LB256
Malaviya, R., LB625
Maldonado, C. A., LB45
Malgovzata, W., LB715
Malhotra, A., LB618, LB636
Malovic, E., LB626
Maltecca, C., LB324
Malysz, T., LB26
Malzberg, E., LB261
Mandal, S., LB643
Manfredsson, F. S., LB572
Mangine, G. T., LB734
Manilos, K., LB580
Manning, B. P., LB110
Neuhard, Z., LB260
Neuy, D., LB242
Newby, C. E., LB799
Newman, J., LB477
Newman, J. W., LB138
Newman, R., LB356
Newton, A. C., LB570
Newton, D., LB356, LB357
Ng, D., LB295
Ng, E., LB295
Ngele, K., LB602, LB606
Nguyen, A. H., LB18
Nguyen, P., LB561
Nguyen, T., LB238, LB519
Nguyen, V. K., LB386
Nguyen, Y. N., LB201
Ngwa, H. A., LB626
Nichols, M. G., LB24
Nichols, W. W., LB669
Nicodemus Johnson, J., LB282
Nicolas, H., LB238
Nicosia, T., LB830
Niculescu, L., LB664
Niebuhr, J., LB687
Niederer, S., LB713
Nieman, K. M., LB283, LB284
Niquet, J., LB629
Nishi, E. E., LB801
Nishikawa, K., LB720
Nishimura, N., LB686, LB685
Nixon, P. A., LB825
Njeri, C., LB56
Njie-Mbye, Y., LB602, LB606
Nkembo, A. T., LB528
Nnamdiebere, J. E., LB530
Nogai, L. A., LB251
Noguchi, G. M., LB716
Noh, D., LB217
Noh, H., LB300
Nolasco, L., LB476
Norregaard, R., LB819
Norris, J. M., LB302
Northington, R., LB392
Norton, M., LB264
Noutsios, G. T., LB214
Nowak, F., LB727
Noy, N., LB148
Nsir, H., LB493
Ntantie, E., LB528
Nuccio, R. P., LB741
Nurmukhambetova, S., LB815
Nuttall, A. L., LB142
Nyaga, S. G., LB499

Obeng, D., LB441
Oberg, K. C., LB34
Obianime, A. W., LB634
Obih, J. A., LB347
Obih, P. O., LB347
O'Boyle, M., LB279
O'Brien, S., LB629
Occi, J., LB753
O'Connor, A., LB590
O'Connor, D., LB296
O'Connor, D. L., LB295
O'Dea, A., LB598
Ode, J., LB324
Odonlola, S. O., LB122
Oelrich, R., LB535
Ojias, D., LB756
Oh, E. K., LB218
Oh, S., LB475
O'Hagan, K. P., LB749
Ohana-Friedman, R., LB537
Ohia, S. E., LB602, LB606
Ohi, Y., LB776
Ohmishi, N., LB686, LB856
Ojoula, O. M., LB562
Okamoto, Y., LB233
Okumura, K., LB473
Oken, E., LB305
Oki, K., LB726
Okutsu, M., LB373, LB739
Olah, A., LB667
O'Leary, D. S., LB649
Olenick, A., LB812
Olfert, M., LB651
Olfert, M. D., LB430
Olianas, M. C., LB569, LB582
Olinga, P., LB819
Oliver, M., LB415, LB766
Olorunfemi, O. S., LB483
Olshewski, A., LB684
Olson, J. S., LB82
Olson, S. J., LB65
Olson, T. P., LB640, LB657
Olson, T. T., LB596
Olver, T. D., LB666
Olvera Vaquez, S. J., LB548
Omobowale, T. O., LB654, LB620
Omotosho, O. E., LB156
Onali, P., LB569, LB582
Ong, E., LB99
Ong, E. N., LB100
Onoye, O. E., LB51
Onyango, E. M., LB757
Oomen, S., LB231
Opere, C., LB602, LB606
Oregon, E., LB812
Orellana, A., LB104
Organ, C. L., LB543, LB544
Organ, J., LB36
Ortega Torres, L., LB485
Ortiz, A., LB41
Oshiro, W., LB510
Ostaszewski, R., LB644
Ostos-Valverde, A., LB521
Osuji, I. M., LB141
Othman, M. A., LB5
Otten, J., LB265
O-Uchi, J., LB690
Ovsepyan, T., LB264
Owens III, A. P., LB732
Owens, D., LB789
Oyagbemi, A. A., LB564, LB620
Oyebamiji, O. L., LB429
Oyungereb, B., LB219
P
Pace, T., LB353
Pace-Asciak, C., LB231
Pacini, G. S., LB7
Packer, R. K., LB751
Packialakshmi, B., LB815
Padilla, J., LB565, LB665,
LB666, LB765, LB843
Pagaduan, J., LB681
Page, R. C., LB205
Palacios, O. M., LB283, LB284
Paladino, N., LB706
Palaniyar, N., LB231
Palmer, S. A., LB8
Paluri, A. S. L., LB685
Pan, L., LB511
Pan, P. Y., LB181
Pandorf, C. E., LB788
Pandya, A. A., LB596
Panicker, G., LB191
Panta, S., LB267
Panté, N., LB86
Panter, K. E., LB596
Papanikolaou, Y., LB452
Papivin, G., LB585
Papp, Z., LB667
Paria, S., LB547, LB552
Park, E., LB385, LB550,
LB571
Park, J., LB470, LB571,
LB752
Park, K., LB448
Park, K. R., LB402, LB405
Park, M., LB328
Park, S., LB160, LB195,
LB340, LB341, LB448,
LB497, LB731, LB779
Park, S. E., LB306
Park, Y., LB341, LB425,
LB470, LB550
Park, Y. C., LB416
Park, Y. J., LB306, LB331
Parker, B. A., LB724
Parker, D., LB759
Thodeti, C. K., LB675, LB679
Thomas, G., LB467
Thomas, K. M., LB513
Thomas, P., LB205
Thomas, R., LB99
Thompson, K., LB17
Thompson, S. V., LB326
Thomson, D. M., LB724, LB725
Thomson, J., LB378
Thorennoo, N., LB214
Thueson, H., LB49
Thuku, G., LB796
Thyfault, J. P., LB719, LB797
Tian, J., LB689
Tierney, D. L., LB205
Tiffany, B., LB270
Tiffany, K., LB270
Ting, P., LB662
Tingelstad, H., LB747
Tingley, G., LB428
Tinker, L., LB337
To, K., LB532
Tocheri, M., LB20
Toien, Ø., LB607
Toilliär, S., LB26
Tokizawa, K., LB739
Tomac, M. P., LB698
Tomasova, L., LB644
Tomaz, G. R., LB7
Tompkins, T., LB207, LB395
Tone, S., LB159
Tonsing-Carter, A., LB612
Topef, S., LB49
Tornadu, I. G., LB400
Torres, M., LB838, LB839
Torres-Martinez, R., LB117
Toth, A., LB667, LB672
Toth, B. A., LB702
Tovar, A., LB459
Townsend, J. R., LB734
Townsend, L. K., LB688, LB723
Tracey, K. J., LB798
Tran, C., LB846
Tran, D., LB482
Tranter, M., LB732
Trawick, M. L., LB122
Treistman, S., LB697
Trejo, J., LB40
Tremblay, A., LB272
Tripp, R. A., LB294
Trivedi, K., LB485
Trivedi, M., LB590
Trivedi, R. K., LB544, LB545, LB546
Trottier, S. K., LB688
Trovato, F. M., LB493
Troy, L., LB311
Troy, L. M., LB458
Trude, A., LB456
Trujillo, J. D., LB517
Truong, L., LB277
Tsai, M. C., LB145, LB180
Tsai, M. Y. M., LB459
Tsang, M. M. Y., LB242
Tsang, T. S. M., LB242
Tsiani, E. L., LB355
Tsuda, A., LB37
Tsujii, B., LB265
Tsuzuki, T., LB770
Tu, Y., LB112
Tulp, O. L., LB133, LB708, LB805
Turchi, J., LB56
Turley, A. E., LB621
Tussing-Humphreys, L. M., LB378
Tutumlu, H., LB469
Tuveson, D. A., LB524
Tyagi, S., LB774
Tzeng, C., LB135

U
Uche, N., LB796
Ueda, K., LB674
Ufmal, M., LB644
Uithoven, K. E., LB640, LB657
Umano, I. C., LB578
Umbach, G., LB694
Umstead, T. M., LB214
Ungaro, C. T., LB741
Unger, E., LB191
Unger, S., LB295
Unnikrishnan, A., LB329
Unrine, J. M., LB624
Uppalapati, C. K., LB72
Urban, A., LB638
Urbaniaik, K., LB517
Urila, L., LB3
Usachev, Y. M., LB855
Uto, T., LB737
Uttley, Z., LB258
Uyehara, C., LB489

V
Vaidyanathan, V., LB495
Vaisman, C. E., LB163
Valenzuela, C. D., LB37
Valenzuela, J., LB851
Van Bremen, R., LB612
Van den Bergh, E., LB645
Van Eyk, J., LB811
Van Lieshout, E., LB266
Van Nuland, S. E., LB16
Vanapalli, S., LB760
Vandenbroek, T., LB289
Vander Wyst, K., LB308
Vander Wyst, K. B., LB307
Vanderpool, K., LB515
Vandevijvere, S., LB463
VanDillen, M., LB492
VanEvery, H. L., LB287
Vanni, S., LB136
Vann-Victorino, D. L., LB797
VanZant, A., LB35
Vardarajaj, S., LB808
Varady, K. A., LB274
Varier, T., LB834
Varli, M., LB435
Vasilaki, A., LB777, LB778
Vaughan, R. A., LB189
Vazquez-Vidal, I., LB460
Vecchio, M., LB442
Veerevali, K., LB507, LB508
Veglia, G., LB150
Veglia, G. N., LB92
Velazquez-Marrero, C., LB697
Veltri, J. G., LB753
Venkatraman, V., LB811
Verbsky, J. W., LB814
Verdon, E., LB747
Verkerke, A. R. P., LB722
Vernarelli, J. A., LB461, LB462
Vianna, L. C., LB791
Vieira, M. A., LB835
Vieira-Potter, V. J., LB665, LB666, LB843
Vijayaraghavan, R., LB161
Villanueva, C., LB548
Villavicencio-Torres, A., LB390
Villegas-Sepúlveda, N., LB157, LB163
Villegas-Silva, R., LB390
Visaya, C., LB265
Visentin, C., LB296
Vithalani, N., LB592
Vivas, L., LB854
Vlad, A., LB664
Vogel, K. R., LB509
Vogel, R., LB481
Vohra, R., LB254
Voruganti, V. S., LB460
Vranish, J. R., LB799
Freeland, A., LB148
Vukelic, I., LB44

W
Wadman, C., LB800
Waggoner, A., LB583
Wagner, C. L., LB356, LB357
Wagner, J., LB432
Wagner, W. L., LB37
Wakefield, L. M., LB497
Wakisaka, S., LB43
Walborn, A., LB494, LB523
Walden, F. v., LB782
Walenga, J., LB522
Wales, C. T., LB490
Wales, C. T. K., LB158
Walker, C., LB150
Walker, C. L., LB42
Walker, K., LB629
Wall, S., LB238
Wallace, R., LB337
Waller, J. D., LB138
Walsh, L. K., LB656
Walter, J., LB327
Walzem, R., LB476
Wandita, T. G., LB813
Wang, B., LB80, LB151, LB544
Wang, C., LB172, LB288, LB315, LB695
Wang, D., LB532
Wang, D. L., LB662
Wang, D. Z., LB507, LB508
Wang, H., LB384, LB427, LB457, LB512, LB722
Wang, L., LB238, LB617
Wang, Q., LB566, LB638
Wang, R., LB693, LB734
Wang, S., LB511
Wang, S., LB512
Wang, X., LB533
Wang, Y., LB75, LB150, LB309, LB391, LB491, LB704, LB827
Wang, Z., LB358, LB427, LB457, LB570, LB608
Wankowski, J., LB270
Warrington, J. P., LB857
Warwick, C. A., LB855
Wary, A. L., LB97
Washburn, L. K., LB825
Wasterlain, C., LB629
Watkins, S., LB583
Watson, P., LB467
Watts, S. W., LB823
Wason, E. M., LB540
Webb, R. C., LB844
Weber, N., LB256
Webster, K. A., LB594
Woe, S., LB350
Wei, J., LB414
Wei, W., LB356
Weidemann, B. J., LB794
Weigle, P., LB89
Weinshenker, D., LB594
Weinshilboum, R., LB617
Weiss, D., LB668
Weiss, H., LB256
Weiss, M., LB504, LB518
Weiss, R. M., LB676