

EXPERIMENTAL BIOLOGY 2019 LATE-BREAKING ABSTRACTS

Authors Place Posters: 7:00 AM–9:00 AM

Poster Viewing: 9:00 AM–4:00 PM

Poster Location: Exhibit Hall, West Hall B

Poster Presentation/Defending: listed under each discipline below

Authors Remove Posters: 4:00 PM–6:00 PM

Posters not removed by 6:00 PM will be discarded.

Anatomy: 9:00 AM–4:00 PM

Presentation time: 10:15 AM–12:15 PM

Even Board Numbers: 10:15 AM–11:15 AM | **Odd Board Numbers:** 11:15 AM–12:15 PM

Tuesday, April 9

Anatomy.....	C104–C118
Anatomy Education	C119–C133
Biological Anthropology.....	C134–C135
Bones, Cartilage and Teeth	C136–C137
Cell Biology	C138–C143
Development and Growth	C144–C146
Evolution and Comparative Anatomy.....	C147–C151
Form Function and Morphology	C152–C157
Imaging	C158–C158
Muscle	C159–C159
Neurobiology	C160–C168
Wound Healing and Bioengineering.....	C169–C169
Regenerative Medicine, Stem Cells, Wound Healing and Bioengineering	C170–C174

Biochemistry and Molecular Biology: 9:00 AM–4:00 PM

Presentation time: 12:15 PM–1:30 PM

ASBMB Even Board Numbers: 12:15 PM–1:00 PM | **ASBMB Odd Board Numbers:** 12:45 PM–1:30 PM

Tuesday, April 9

Genome Dynamics: DNA Replication, Repair and Recombination Late Breaking Research	E358–E362
Chromatin Structure, Remodeling and Gene Expression Late Breaking Research.....	E363–E375
RNA: Processing, Transport, and Regulatory Mechanisms Late Breaking Research	E376–E380
Protein Synthesis, Structure, Modifications and Interactions Late Breaking Research.....	E381–E396
Enzyme Chemistry and Catalysis Late Breaking Research.....	E397–E408
Chemical Biology, Drug Discovery and Bioanalytical Methods Late Breaking Research	E409–E423
Genomics, Proteomics and Metabolomics Late Breaking Research	E424–E438
Signal Transduction and Cellular Regulation Late Breaking Research.....	E439–E471
Bacteria and Parasites: From Microbiome to Antibiotics Late Breaking Research.....	E472–E487
Metabolism and Bioenergetics Late Breaking Research	E488–E504
Lipids and Membranes Late Breaking Research	E505–E512
Biochemistry of Organelles and Organelle Trafficking Late Breaking Research.....	E513–E517
Glycans and Glycobiology Late Breaking Research	E518–E520
Interdisciplinary/Translational Science (SEBM) Late Breaking Research.....	E521–E527
BMB Education and Professional Development Late Breaking Research.....	E528–E536

Pathology: 10:00 AM–1:00 PM

Authors at boards: 11:45 AM–12:45 PM

Sunday, April 7

Late-Breaking: Pathology, Pathogenesis, and PathobiologyA70–A82

Monday, April 8

Late-Breaking: Pathology, Pathogenesis, and PathobiologyA74–A89

Tuesday, April 9

Late-Breaking: Pathology, Pathogenesis, and PathobiologyA86–A110

Pharmacology: 9:00 AM–4:00 PM

Authors at boards: 10:00 AM–12:00 PM

Sunday, April 7

Late Breaking: Toxicology.....B261–B273

Late Breaking: Drug Discovery and DevelopmentB274–B296

Monday, April 8

Late Breaking: Pharmacogenomics and Translational Pharmacology.....B266–B271

Late Breaking: Central Nervous System PharmacologyB272–B290

Late Breaking: Cancer PharmacologyB291–B300

Late Breaking: Other PharmacologyB301

Tuesday, April 9

Late Breaking: Pharmacology EducationB267–B268

Late Breaking: Drug Metabolism and DispositionB269–B270

Late Breaking: Cellular and Molecular PharmacologyB271–B289

Late Breaking: Cardiovascular PharmacologyB290–B300

Late Breaking: Other Pharmacology IIB301–B302

Physiology: 9:00 AM–4:00 PM

Authors at boards: 10:15 AM–12:15 PM

Tuesday, April 9

Teaching of PhysiologyE539–E540

Comparative and Evolutionary PhysiologyE541–E544

Translational Physiology.....E545–E551

Sex Differences in Physiology.....E552–E557

Biomedical Engineering.....E558–E558

Environmental and Exercise PhysiologyE559–E576

Microcirculation.....E577–E586

Cardiovascular PhysiologyE587–E648

Water and Electrolyte HomeostasisE649–E654

Renal PhysiologyE655–E668

Gastrointestinal and Liver Physiology.....E669–E677

Nutrition Physiology.....E678–E689

Endocrinology and Metabolism Physiology.....E690–E701

Respiration PhysiologyE702–E714

Hypoxia.....E715–E720

Cell and Molecular Physiology.....E721–E739

Epithelial Transport.....E740–E740

Central Nervous SystemE741–E749

Neural Control and Autonomic RegulationE750–E770

Physiological Genomics.....E771–E771

Muscle Biology.....E772–E786

Anatomy

ANATOMY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM—12:15 PM

Authors at boards:

Even board #: 10:15 AM—11:15 AM

Odd board #: 11:15 AM—12:15 PM

- C104** LB101 Anthropometric evaluation of humerus with and without the septal foramen. **R.O. Soares, F.S. Fazan, V. P.S. Fazan.** University of Araraquara-UNIARA, Brazil, Federal University of São Paulo-UNIFESP, Brazil and School of Medicine of Ribeirão Preto-University of São Paulo, Brazil.
- C105** LB102 Prevalence of Anatomical Variants of the Circle of Willis. **A. Crofton, D. Beetler, A. Wilkerson, C. Rosado, R. Parente, C. Sfalanga, D. Tailor.** AdventHealth University and AdventHealth.
- C106** LB103 Rethinking Anatomy: Clinical Syndromes as the Basis for Teaching Basic Science in Gross Anatomy. **S. Zill.** Joan C. Edwards Sch. Med.
- C107** LB104 A Comprehensive Anatomical Characterization and Radiographic Study of Stage III Testicular Cancer in a 31-Year-Old Male Patient. **J.L. Mas, E.F. Talarico; Jr., J.A. Jones.** Indiana University School of Medicine-Northwest and Union Hospital.
- C108** LB105 Novel Communications of the Infraorbital Artery: A Quantitative Analysis. **J. Winters.** Texas Tech University Health Sciences Center El Paso Paul L. Foster School of Medicine.
- C109** LB106 The Flexor Carpi Radialis Brevis: A Description of an Anomalous Wrist Flexor and Surgical Exposure Technique. **T. Bates, J. Nuelle, S. Pierre.** San Antonio Military Medical Center.
- C110** LB107 A method for determination of tracheobronchial airway geometries from four different strains of mice. **J. Hoeng, C. Foong, M.J. Oldham, F. Lucci, S. Cockram, S. Luke, D. Yeo, J. Chua, M.C. Peitsch, A. Kuczaj.** Philip Morris Products, Switzerland, PMI Research Laboratories, Singapore, Altria Client Services LLC and Synopsys Inc.
- C111** LB108 Histology of the Internal Reproductive Organs of the Female Oryx (*Oryx leucoryx*). **J.R. Rodriguez-Sosa, S.R. Ruiz, K.E. Townsend.** Midwestern University.
- C112** LB109 A Rare Case of an 83-Year-Old Male Transgender: An Anatomical and Genetic Study. **L. Polcaro, C. Lawson, Y. Tan, M. Tersigni-Tarrant, A. Frolov, J. Martin.** Saint Louis University School of Medicine.
- C113** LB110 Arterial Variation in the Upper Extremity Observed During Cadaveric Dissection. **L. Polcaro, J. Donohue, D. Daly, Y. Tan.** Saint Louis University School of Medicine.
- C114** LB111 Rare Bilateral Variation of the Posterior Intercostal Arteries. **D. Sehi, N. Wallace, D. Daly, J. Martin, Y. Tan.** Saint Louis University School of Medicine.
- C115** LB112 Direct Aortic Origin of the Left Vertebral Artery in Two Adult Female Cadavers. **J. Donohue, S. Memar, Y. Tan, D. Daly, J. Martin.** Saint Louis University School of Medicine
- C116** LB113 Estimation of Stature from the Sternal Length in American White Population Using Linear Regression Equation: A Preliminary Cadaveric Study. **G. Zavurov, C. Malhis, T. Sims, A. Gupta, J. Walia, K. Khalid, S. Ambati, S. Lobo.** TouroCOM, UMHS, Saint Kitts and Nevis and SHSU- Proposed COM.

- C117** LB114 Displaced Descending Colon and Dolichosigmoid with Uncommon Sigmoidal Artery Branching Pattern. **N. B. Kandavalli, B.B. Castellanos.** Touro College of Osteopathic Medicine.
- C118** LB115 Variations in the formation of the of the trunks, Long Thoracic and Suprascapular nerves of the brachial plexus. Correlation of Those Variations with Possible Clinical and Surgical Implications. **W.R. Veras, T. Lopez, J. Diaz.** San Juan Bautista School of Medicine, Puerto Rico.

ANATOMY EDUCATION

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM—12:15 PM

Authors at boards:

Even board #: 10:15 AM—11:15 AM

Odd board #: 11:15 AM—12:15 PM

- C119** LB116 Digital tools and software in a blend with plastinated specimens in the 21st-century Anatomy classroom. **V. Stashenko.** Palm Beach State College.
- C120** Lb117 The Toy As Anatomy Teaching And Learning Tool. **L. C. Campos, C. N. Rabelo Lemos Filho, M. L. d. Menezes Victor, L. Costa Carioca, L. A. Porto Castro Filho, I. d. Nascimento da Silva, J. E. Facanha Barreto, G.S. Santos Cerqueira.** Medical students of the Federal University of Ceará, Brazil, Post-Graduate Program in Morphofunctional Sciences, Federal University of Ceara and Brazil, Brazil.
- C121** LB118 Use of a Practical 3D Model for Learning Sensory-motor Tracts in Neuroanatomy: Evidence for Sex Differences. **M.C. Chaparro, M.A. Blanco-Alvarado, J.A. Gutierrez-Herrera, L.L. Sierra, R.A. Pena-Silva, V. Akle.** Universidad de los Andes, Colombia.
- C122** LB119 Animate! Breathing new life into an old pedagogy: Human embryology teaching re-envisioned. **O. Oyedele, B. Calibaba.** University of British Columbia Okanagan, Canada.
- C123** LB120 This Week You Next Week Me: Rotational Peer-to-Peer Dissections and Presentations to Augment Undergraduate Laboratory Sessions. **M. Parizi-Robinson, M.E. Moore.** Baylor University.
- C124** LB121 Supplementing a Traditional Human Gross Anatomy Course with Ultrasound Training. **M. McGuinness.** PCOM.
- C125** LB122 Anatomy in Medical Education: A Canadian Review. **J. Rockarts, B. Wainman, A. Shali, V. Mohialdin.** McMaster University, Canada.
- C126** LB123 In Praise of Selflessness: Students Expectations of an Anatomy Laboratory Experience. **B. Kramer, E. Hutchinson, C. Hartmann.** University of the Witwatersrand, South Africa.
- C127** LB124 A three-dimensional model of the pterygopalatine fossa significantly enhances the learning experience. **J.A. Tanner, A. Sakaguchi, M. Bartanuszova, N. Ruparel, J. Jackson, L. Johnson, H. Nation, B. Jethwa, T.S. King, A. Bhattacharya, R. Sharma.** UT-Health San Antonio and University of Incarnate Word.
- C128** LB125 Peer-Directed Small Group Learning In M1 Gross Anatomy: Enhancing Student Learning While Reducing Required Contact Hours. **R.L. Stanley, K. Harrell.** Brody School of Medicine and East Carolina University.

- C129** LB126 Medical Students First Experience in Human Cadaver Dissection Across Culture. **J.M. Gemechu, I. Hajj Hussein, J.A. Wasserman, E. Abdel Meguid, M. Barremkala, A. Jurjus.** Oakland University William Beaumont School of Medicine, School of Medicine, Dentistry and Biomedical Sciences, Queen's University Belfast, United Kingdom, Faculty of Medicine and American University of Beirut, Lebanon.
- C130** LB127 Predictors of Success in a Medical Gross Anatomy Course. **M. Hintz, D. Brannen, K. Oney, A. Helman, V. Pazdernik, J. Houser, P. Kondrashov.** A.T. Still University Kirksville College of Osteopathic Medicine and A.T. Still University.
- C131** LB128 Drawing and Peer Teaching Through Illustrations in a Cadaveric-based Undergraduate Human Anatomy Program. **N.Y. Robson, W. Albabish, L. Jadeski.** University of Guelph, Canada.
- C132** LB129 Written Communication Skills in Physical Therapy Students. **C. Cline, K. Samonds, H. Bergan-Roller.** Northern Illinois University.
- C133** LB130 Efficiency vs. Competency Development: What Interprofessional Health Professions Students Learn From, With, and About Each Other During Anatomy Dissection. **S. Nelsen, C. Tucker.** Oregon Health & Science University.

BIOLOGICAL ANTHROPOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C134** LB131 Investigation of Brain Anatomy in Individuals with Trisomy 21 versus Euploid Controls. **Y. Ahmad, W.F. Sensakovic, V. Grekoski, M. Flores, T. Tran, K. Guruvadoo, J. Starbuck.** University of Central Florida, Florida Hospital and LECOM Bradenton.
- C135** LB132 Can Dentition Aid in Estimation of Handedness. **M. Jelaca.** SWC.

BONES, CARTILAGE AND TEETH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C136** LB133 Anti-Inflammatory effect and bone protection of kefir peptides in a rat model of adjuvant-induced rheumatoid arthritis. **Y-W. Lai, C-H. Ko, H-L. Chen, C-M. Chen.** National Chung Hsing University, Taiwan, Kaohsiung Chang Gung Memorial Hospital, Taiwan and Da-Yeh University, Taiwan.
- C137** LB134 Variability in the Evolution of Ornithischian Cranial Morphology. **M.R. Spencer.** George Washington University.

CELL BIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C138** LB135 The Effects of Electromagnetic Fields on Mitochondria: An Ultra-structural and Biochemical Study. **N. Siddiqi, N.S. Al Nizwani, Z. Shaikh, A. Shalaby, Y. Tamimi.** National University of Science and Technology, College of Medicine and Health Sciences, Oman, Sultan Qaboos University, Oman, Sultan Qaboos University and College of Medicine and Health Sciences, Oman.
- C139** LB136 The occurrence of intraepithelial immunologically active cells within the epithelium of the human uterine tubes. **I. Varga, E. Kubikova, M. Repka, P. Babal.** Comenius University in Bratislava and Faculty of Medicine, Slovakia.
- C140** LB137 Functional Interaction between SEPT9_v1 and EGFR in Triple-Negative and Inflammatory Breast Cancer. **L.Y. Diaz Rodriguez, J.G. Cirino, J.D. Mercado, A. Agosto, K. Rolon, G.E. Figueroa, G. Martinez, K.E. Montañez, K.M. Rodriguez, X.S. Bittman, E.A. Peterson.** University of Puerto Rico-Rico-Rio Piedras Campus.
- C141** LB138 Estrogen Non-Genomic Signaling as a Potential Therapeutic Target in Inflammatory Breast Cancer. **K.M. Rodriguez Martir, I. Jimenez, J. Guzman, K.M. Montañez, X. Bittman, S.M. Aviles, D. Negron, E.A. Peterson.** UPR Rio Piedras, Puerto Rico.
- C142** LB139 The Role of Epigenetic Changes in Pancreatic Beta Cells in Diabetes. **R. Alhazzaa, C. Antonei.** Howard University, and King Saud bin Abdulaziz University for Health Sciences.
- C143** LB140 Effects of Resveratrol on diabetes-induced up-regulation of apoptosis and MAPK signaling in retinal pigment epithelium of dark Agouti rats. **R. Kittaneh, H. Al-Hussaini, K. Narayana.** Kuwait University, Kuwait.

DEVELOPMENT AND GROWTH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C144** LB141 Hair Cell Development and Regeneration in Zebrafish Lacking the Cannabinoid Receptor2. **T. Tossas Deida, L. Colon, R. Rodríguez, A. Santana, M. Behra.** UPR- School of Medicine.
- C145** LB142 Vaping Condensate Exposure to *in vitro* Mouse Embryos. **J.W. Carter, K.W. Smith, C. Christine, R. Okimoto, J. Swanson.** Liberty University College of Osteopathic Medicine.
- C146** LB143 In Vivo Mouse Embryo Growth with Exposure to E-Cig Vapor. **K.W. Smith, J.W. Carter, R. Okimoto, C. Christine, K. Stenlund, J. Swanson.** Liberty University College of Osteopathic Medicine.

EVOLUTION AND COMPARATIVE ANATOMY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C147** LB144 Modeling the Evolution of Crocodyliform Cranial Shape Through Time. **E. Wilberg, A. Turner, J. Smaers.** Stony Brook University.
- C148** LB145 Slimed! Better understanding the role of aquaporin in the slime gland of hagfish. **J. Lane, A. Torenvliet, M. Edmunds, A. Schimnowski.** Mahtomedi High School.
- C149** LB146 Bone Mineral Density Reduction Explains Buoyancy Adaptations in Notothenioids. **H. Lauridsen, T. Desvignes, C. Damsgaard, J.S. Thomsen, T.S. Stenum, S. Ringgaard, K. Hansen, A.M. Funder, T.L. Andersen, L.W. Boel, L. Rejnmark, J.H. Postlethwait, P.R. Møller, H. I. Detrich.** Aarhus University, Denmark, University of Oregon, University of British Columbia, Canada, Aarhus University Hospital, Denmark, University of Southern Denmark, Denmark, University of Copenhagen, Denmark and Northeastern University.
- C150** LB147 Evolutionary significance of morphological integration of the mandibular symphysis and corpus in extant hominoids. **M. K. Pitirri.** Pennsylvania State University.
- C151** LB148 Anatomy of the Proboscidean Nerve in the Proboscis of the African Elephant (*Loxodonta africana*). **A. Nabavizadeh, J.S. Reidenberg.** Cooper Medical School of Rowan University and Icahn School of Medicine at Mount Sinai.

FORM, FUNCTION AND MORPHOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C152** LB149 Study of the Articular Disk of the Temporomandibular Joint in Human Ageing: Preliminary Macroscopic Analysis. **A.L. Jacomo, T.G. d. S. Cerioni, A.V. Frascino, F.E. Akamatsu, F.C. Hojaij.** Faculdade de Medicina da Universidade de São Paulo, Brazil.
- C153** LB150 Cortical and trabecular bone density distribution in primate and felid limb epiphyses. **T.A. Perry, H. Chirchir.** Marshall University, National Museum of Natural History and Smithsonian Institution.
- C154** LB151 Elongated Styloid Processes and a Triticeal Cartilage in the Stylohyoid Ligament: Clinical and Comparative Perspectives. **E.M. Bender, D.C. Nwafor, A.B. Petrone, H. W. Lambert, M.J. Zdilla.** West Liberty University and West Virginia University School of Medicine.
- C155** LB152 A Radiographic Analysis of Phalanx Shapes. **M.P. Neiswonger, L.S. Hartnell, E.M. Bender, M.J. Zdilla.** West Liberty University and West Virginia University School of Medicine.
- C156** LB153 Osteocyte morphology in the human craniofacial skeleton. **K. Guerrero, P.C. Dechow, M. McGee-Lawrence, K. Yu, L.P. McIntosh.** Abraham Baldwin Agricultural College, Texas A&M University School of Dentistry, Medical College of Georgia and Augusta University.

- C157** LB154 Modelling the performance of subterranean rodent mandibles using finite element analysis. **G. Pierzchjlo, P. Cox, A. McIntosh.** Abraham Baldwin Agricultural College and University of York, United Kingdom.

IMAGING

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C158** LB155 An MRI Investigating of the Lower Limb Musculature in Patients with Chronic Inflammatory Demyelinating Polyneuropathy. **J. Fanous, K. Gilmore, K. Kimpinski, C. Rice.** The University of Western Ontario, Canada.

MUSCLE

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C159** LB156 Case Report: Human Digastric Sartorius Muscle With An Evo-Devo Approach. **E. J.A. Mondragon, D. M. Aldana Baron, M. M. Dussan, A. Lopez Villegas, J. Bendeck.** Universidad De La Sabana, Colombia.

NEUROBIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C160** LB157 Dibutyl cAMP Enhances Cognitive Functions in Diabetic Rats by Increasing the Hippocampal Neurogenesis. **N.W. Al-Farhan, M. Rao.** Kuwait University, Kuwait.
- C161** LB158 Structural and functional changes in human aquaporin (AQP4) and its role in the symptoms of glaucoma. **R. Ales, T. Anderson, S. Hueffmeier.** Mahtomedi High School.
- C162** LB159 Determining Accuracy of oAb as a Mechanistic Biomarker for Alzheimer's Disease in Human Plasma. **N. Faulk, A. Valencia-Olvera, N. Collins, M. J. LaDu.** University of Illinois Chicago.
- C163** LB160 The effects of sex and *APOE* genotype on the gut microbiome in EFAD transgenic mice. **J.E. Maldonado, I.J. Parikh, A. Naqib, S.J. Green, S. Estus, M. J. LaDu.** University of Illinois Chicago and University of Kentucky.
- C164** LB161 Effects of *APOE* Genotype and Sex on the Plasma Lipoprotein Profile of the EFAD Mouse. **K. Panchapakesan, Y. Saleh, B. Xiang, A.C. Valencia-Olvera, M. J. LaDu, A. Karstens.** University of Illinois Chicago.
- C165** LB162 Differentiation of neuronal population in cytoarchitecture of spinal cord using Modified Thionin Staining. **P. Potaliya, S. Ghatak.** All India Institute of Medical Sciences, India.

- C166** LB163 Development of an Improved Method for Genetic Fate Mapping of Brain Microglia. **G.L. McKinsey, E. Chee, N. Santander, T.D. Arnold.** University of California San Francisco and University of California Berkeley.
- C167** LB164 A Publicly Guided Effort to Rapidly Produce and Disseminate 100 Intersectional Genetic Alleles for the Study of Nervous System Circuit Development and Function in the Mouse. **V. Martinez, J. Sun, A. McKinney, X. Jiang, R. Ray.** Baylor College of Medicine.
- C168** LB165 Positive allosteric interaction between agonist 5-HT_{2A} receptor autoantibodies and LY 379268, a selective metabotropic glutamate 2/3 receptor agonist. **M.B. Zimering, S. Nadkarni.** Veterans Affairs New Jersey Healthcare System and Rutgers-Robert Wood Johnson Medical School.

REGENERATIVE MEDICINE, STEM CELLS, WOUND HEALING AND BIOENGINEERING

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:15 AM–12:15 PM

Authors at boards:

Even board #: 10:15 AM–11:15 AM

Odd board #: 11:15 AM–12:15 PM

- C169** LB166 Cell Based Therapy Reduces Secondary Damage and Increases Extent of Microglial Activation Following Cortical Injury. **M.E. Orczykowski, S.M. Calderazzo, E. Shobin, M.A. Pessina, A.L. Oblak, S.P. Finklestein, B.C. Kramer, F. Mortazavi, D.L. Rosene, T.L. Moore.** Boston University School of Medicine, Stemetix, Janssen Scientific Affairs and LLC.
- C170** LB167 Glycyrrhizinate Dipotassium (DPG) Effects over Skin Wound Healing. **T. Rocha, C.S. Leite, D.G. Tenis, J. Ziegler, D.G. Priolli.** San Francisco University, Brazil.
- C171** LB168 Generation and characterization of human iPSCs from human fibroblasts in respect to osteochondral regeneration. **L. Danisovic, M. Csobonyeiova, A. Nicodemou, Z. Varchulova Novakova, M. Miko, R. Zamborsky, I. Varga.** Faculty of Medicine, Comenius University, Slovakia, Regenmed Ltd., Slovakia and Biohem Ltd., Slovakia.
- C172** LB169 In Utero Exposure To Caffeine Reduces Dna Methylation In Human Mesenchymal Stem Cells. **E. Pregmon, M. Seat, R. Poulsen, C.C. Wendler.** University of Florida.
- C173** LB170 Generation of Cardiac Organoids Using Cardiomyocytes, Endothelial Cells, Epicardial Cells, and Cardiac Fibroblasts Derived From Human Induced Pluripotent Stem Cells. **H.R. Helms, D.K. Jarrell, J.G. Jacot.** University of Colorado Anschutz Medical Campus.
- C174** LB171 Nondestructive Measurement of Regenerated Esophageal Biaxial Mechanical Properties Utilizing Sonometry For Determination of Directional Esophageal Regeneration. **J.M. Aho, M.R. Barron, B.M. Qiang, D.A. Wigle, D.M. Tschumperlin, M.W. Urban.** Mayo Clinic.

Biochemistry and Molecular Biology

GENOME DYNAMICS: DNA REPLICATION, REPAIR AND RECOMBINATION LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E358** LB172 Assessing the Role of Ndc80 Kinetochores Complex in Accurate Chromosome Segregation. **X.L. Rodriguez-Lopez, M. Amin, Y. Wang, Y. Yao, D. Varma.** The University of Puerto Rico in Ponce, Puerto Rico and Northwestern Feinberg School of Medicine.
- E359** LB173 Mitochondrial DNA replication-related Nucleotide Patterns: Ancient ruins or living structures? **M. Franco, Z. Fleischmann, K. Wasco, S. DeRosa, C. Payne, S. Annis, K. Khrapko.** Northeastern University.
- E360** LB174 A Lethal Replication Roadblock Imposed by a Catalytically Inactive DNA Polymerase. **A.J. Hernandez, S.-J. Lee, S. Chan, J. Lee, J. Loparo, C.C. Richardson.** Harvard Medical School.
- E361** LB175 Using an *in vitro* fluidics approach to model the evolution of metastatic breast cancer reveals shear stress as a possible driver of genomic instability and somatic mutation. **M. Bratton, C.E. Byrne, S.M. Rahman, C.T. King, C.E. Copeland, L. Rhodes, E. Glotser, P. Ma, E. Skripnikova, T. Wiese, A. Melvin, E. Martin.** Xavier University of Louisiana, Louisiana State University and Florida Gulf Coast University.
- E362** LB176 Exploring a potential link between cell cycle regulation and Cancer Testis gene misregulation. **S.S. Alhewati, P. Goetsch.** Michigan Technological University.

CHROMATIN STRUCTURE, REMODELING AND GENE EXPRESSION LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E363** LB177 FLG loss of function mutations R501X and R2447X in Puerto Rico: Association of genetic ancestry with Atopic Dermatitis and Ichthyosis Vulgaris. **E. Ramirez Aponte, J. C. Martinez Cruzado.** University of Puerto Rico at Mayagüez
- E364** LB178 Manipulating Cellular Trafficking Positively Affects Syn-TEF Function in Human Tissue. **S. Rider, C. J. Brandon, A. Ali, A. Z. Ansari.** University of Wisconsin-Madison
- E365** LB179 Stress hormones induce DNA damage in ovarian cancer cells. **R. Lamboy Caraballo, G. Armaiz.** Ponce Health Sciences University
- E366** LB180 Protein-DNA interactomes of cardiac transcription factors GATA4 and NKX2-5. **E. Carrasquillo, J. A. Rodriguez.** University of Puerto Rico Rio Piedras campus

- E367** LB181 Determination of the DNA binding preference of the SIX transcription factor optix in Heliconius butterflies. **A. R. Rivera, J. A. Rodriguez.** University of Puerto Rico Rio Piedras campus
- E368** LB182 Decitabine Treatment Demethylates Vast Majority of High-Confidence Differentially Methylated Regions in HCT-116 Colorectal Cancer Cells. **W. H. Conrad, J. Anderson, A. Balaram, Y. Ganey, S. Gascoigne, C. Gimondo, B. Palmero, A. Quraishi, A. Rodriguez, S. O. Sadat, A. Sandler.** Lake Forest College
- E369** LB183 Methylation of *RB1* CpG island by SUV39H1/DNMT3A promotes malignant melanoma development. **G. Kim, H. Choi.** College of Pharmacy, Chosun University
- E370** LB184 The Role of E4BP4 in Apoptosis of Human Leukemia Cells in Culture. **E. L. Mitchell-Velasquez, D. Gomez, R. D. Medh.** California State University, Northridge
- E371** LB185 Uncovering DNA binding properties of the GATA4 and TBX5 transcription factor complex. **E. Rosado-Rodriguez, J. Rodriguez-Rios, J. Rodriguez-Martinez.** University of Puerto Rico-Rio Piedras (UPR-RP)
- E372** LB186 Gene Expression of DNA Repair Proteins in Colon Cancer Tissue. **K. T. Odufuwa, R. Elder, A. Povey.** University of Salford, University of Manchester.
- E373** LB187 Chromatin Modulation Underlies Multiple Routes to Enhanced Learning and Memory. **T. H. Sanders.** Vanderbilt University.
- E374** LB188 Systematic Characterization and Conservation of Adjacent Gene Co-Regulation in Fungi. **R. Eldabagh, J. Foley, J. Arnone.** William Paterson University of New Jersey
- E375** LB189 Three-dimensional reconstruction of Prdm family gene expression patterns during mouse development stage by tissue clearing technique. **J. Woo, H. Kang, Y. Cho.** Yonsei University College of Medicine

RNA: PROCESSING, TRANSPORT, AND REGULATORY MECHANISMS LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E376** LB190 Synergistic and Global Effect of C-terminus of Hfq in Small RNA Regulation. **K. Kavita, A. Zhang, C-H. Tai, G. Storz, S. Gottesman.** National Cancer Institute, National Institutes of Health, National Institute of Child Health and Human Development and National Institutes of Health.
- E377** LB191 Compensatory Evolution within Viral RNA Structure: The Potential Role of Stable Intermediates in RNA Structural Heterogeneity. **B. Rife Magalis, B.S. Tolbert, M. Salemi, S.L. Kosakovsky Pond.** Temple University, Case Western Reserve University and University of Florida.
- E378** LB192 Characterization of the Interaction between ISTL1 and Exo70E2 in Arabidopsis. **L. Camacho.** CSUN.
- E379** LB193 A Large Scale Analysis of the Utilization of Programmed-1 Ribosomal Frameshifting as a Recoding Mechanism for the Expression of Human Genes. **Z. Du, X. Zhou, X. Huang.** Southern Illinois University.

E380 LB194 Regulation of 2'-5'-oligoadenylate synthetase 1 (OAS1) by small double-stranded RNAs. **S.L. Schwartz, G.L. Conn.** Emory University.

PROTEIN SYNTHESIS, STRUCTURE, MODIFICATIONS AND INTERACTIONS LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

E381 LB195 Unstructured Proteins in Biological Structures: The Case of Human Teeth from a Protein Chemist's Perspective. **V. Sharma, A. Srinivasan, A. Roychoudhury, F. Nikolajeff, S. Kumar.** All India Institute of Medical Sciences, India, Jamia Hamdard University, India and Uppsala University, Sweden.

E382 LB196 The Role of $\alpha\beta 3$ Integrin Proteins in Glaucoma. **A. Fassler.** School District of Marshfield.

E383 LB197 Point Mutation of Aquaporin 4 Impairs its Binding in Neuromyelitis Optica. **J.B. S. Replogle, I. Calderon, S. Cutforth, E. Devine, J. Fraley, T. Lamarre, E. Moran, L. Valencia, K.C. Suder.** Summit Country Day School.

E384 LB198 Prediction Modeling of the *MYH6* R443P Variant in Hypoplastic Left Heart Syndrome. **C. Kaiser, K. Klestinski, S. Patel, M. Mitchell, R. Stegeman, O. Ledger, C. Groppi, J. Malloy, S. Smith, A. Akbar, L. Homberg, M. Richardson, J. Novotny.** Marquette University High School.

E385 LB199 Plant Cell-Secreted Growth Factors for *ex vivo* Mass Production of Red Blood Cells. **J. Xu, X. Wang, T. Wright.** Arkansas State University.

E386 LB200 On the Spectrum with T-box Brain Protein 1: A Transcription Factor Protein Critical for Normal Neural Development. **L. Andrews.** The Independent School.

E387 LB201 Regulation of Carbonic Anhydrase Expression in Experimental Colitis: A Possible Mechanistic Link with Na-H Exchanger. **I. Khan, A. Al-Shamali.** Kuwait University, Kuwait.

E388 LB202 Kinetic Studies of 2-(2'-hydroxyphenyl) benzenesulfinate desulfinate substrate analogs. **D.R. Kedir, L.M. Watkins.** James Madison University.

E389 LB203 Ordered and Disordered Segments of Amyloid- β Drive Sequential Steps of the Toxic Pathway. **S. Maiti, B.K. Maity, A.K. Das, S. Dey, U.K. Moorthi, A. Kaur, A. Dey, D. Surendran, R. Pandit, M. Kallianpur, B. Chandra, M. Chandrakesan, S. Arumugam.** Tata Institute of Fundamental Research, India, EMBL Australia Node in Single Molecule Science and School of Medical Sciences, Australia.

E390 LB204 Use of NMR to probe changes in the flexibility of acid-stress chaperone HdeB from its inactive to active state. **L. Abasi, K. Crowhurst.** California State University Northridge.

E391 LB205 Structural Insights into Phospholipase C ϵ Function. **Y. Rugema, K. Prahalad, S.P. Pearson, H. O'Neill, W. Mbongo, E. Garland-Kuntz, M. Sieng, A.M. Lyon.** Purdue University.

E392 LB206 Crystal structure of a dimerization domain of *Drosophila* Caprin protein. **X. Zhou, J. Zhu, Z. Du, X. Huang.** Southern Illinois University.

E393 LB207 Light sensitivity of the photoreceptor cryptochrome of the *Drosophila* circadian clock and its interaction with other clock components. **C. Lin.** Cornell University.

E394 LB208 Structural mechanism of vaccinia virus protein C6 mediated inactivation of transcription factors IRF3 and IRF7 via inhibition of TBK1 mediated scaffold protein-protein interactions. **S. Chakraborty, G. Xu.** North Carolina State University.

E395 LB209 The Pre-N Domain is a Distinct Feature of Grp94 that is Essential for Client Maturation and Regulation. **J.D. Huck, N.L. Que, F. Hong, Z. Li, D.T. Gewirth.** Hauptman-Woodward Institute, University at Buffalo and Medical University of South Carolina.

E396 LB210 DNA-binding specificity of TBX5 and its coding variants associated with Holt-Oram Syndrome. **B.I. Cesar, E. Carrasquillo, J.A. Rodriguez.** University of Puerto Rico-Rio Piedras Campus.

ENZYME CHEMISTRY AND CATALYSIS LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

E397 LB211 Explorations of Polyethylene Terephthalate (PET) Hydrolase for addressing PET Plastic Pollution. **O. Cheranov, L. Arterburn, D. Centeno, L. Feuerborn, H. Min, C. Penrod, G. Raley, E. Yarkosky, E. Kessler.** Center for Advanced Professional Studies (CAPS).

E398 LB212 Investigating the Kinetic Effects of the Allosteric Interaction Between Newly-Discovered Dynamic Hydrogen-Bonded Residues and the HINT1 Active Site. **D. Wang, A. Strom, C.R. Wagner.** University of Minnesota.

E399 LB213 Immobilization of enzymes into nanofiber membranes via electrospinning and its application in natural sweetener production. **R. Wang, T. Wang, Y-C. Yeh.** Tunghai University, Taiwan and National Taiwan University, Taiwan.

E400 LB214 Isolation and characterization of lipase inhibitory activity from *Solanum tuberosum* L. **D.A. Katimbwa, J. Lim.** Kyungpook National University, Republic of Korea.

E401 LB215 Kinetic Basis for Selective Inhibition of Hepatitis C Virus RNA-Dependent RNA Polymerase by Nucleoside Analogs. **B. Villalba, J. Li, K. Johnson.** University of Texas at Austin.

E402 LB216 Electrochemical Investigation of R2lox, a Novel Class of Heterobimetallic Mn/Fe Protein. **C.R. Schneider, E.K. Miller, Z.R. Smith, H.S. Shafaat.** The Ohio State University.

E403 LB217 Effects of Macromolecular Crowding on Alcohol Dehydrogenase and Citrate Synthase Kinetics. **K. Slade, C. Chung, J. Jackson.** Hobart and William Smith Colleges.

E404 LB218 Protein-Polymer Bioconjugation Effects on Activity and Stability of Cellulase (FnCel5a) with Varying Molecular Weights of Polymer Chains. **N. Ram.** University of South Florida.

E405 LB219 Explorations of Sodium-Potassium Adenosine Triphosphatase, Na⁺K⁺ ATPase, and the Inhibitory Cardiac Glycoside, Ouabain. **C. Kywe, L. Kambhampati, E. Mackenzie, M. Meyer, L. Seeley, H. Smuckler, D. Smalley, E. Kessler.** Blue Valley North High School and Center for Advanced Professional Studies.

- E406** LB220 Using Enzyme Kinetics and Small Angle X-ray Scattering to Understand the Allosteric Regulation of SIRT1. **N. Wang.** San Jose State University.
- E407** LB221 MppP: The Beginning of L-End (Synthesis). **K. Tiffany, J. Amundson, A. Boeselager, K. Bote, M. Burgarino, R. Burns, E. Ertl, E. Fairchild, K. Fueger, S. Garey, J. Going, A. Ketelhohn, K. Kubiak, J. Kunz, A. Langholz, S. Levy, M. Novack, K. Phelps, E. Remington, S. Schoenberg, B. Tiffany, N. Silvaggi.** Cedarburg High School and University of Wisconsin-Milwaukee.
- E408** LB222 Identifying an Allosteric Switch Region in Human SIRT1. **A. Huynh, C.A. Amaya, S. Montermoso, B. Lustig, N. Wang.** San Jose State University.

CHEMICAL BIOLOGY, DRUG DISCOVERY AND BIOANALYTICAL METHODS LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E409** LB223 Examination of specific binding activity of packaging sequence RNAs to the SARS-CoV nucleocapsid by using cell-based *in vivo* assay for RNA-Protein interaction. **J. Woo, Y-E. Cho.** Yonsei University College of Medicine, Republic of Korea and Yonsei University, Republic of Korea.
- E410** LB224 A Securinine Derivative as a Novel Treatment for Acute Myeloid Leukemia. **N.R. Oldford, S. Karunanithi, R. Liu, Y. Hou, L. Stetson, A. Roe, G. Lee, J. Valentin Goyco, S. Moreton, D. Wald.** Case Western Reserve University.
- E411** LB225 Isolation of Synergistic Natural Products Targeting Metabolic Dysfunction in Pediatric Pre-B Cell Acute Lymphoblastic Leukemia Using High-Throughput Screening and Metabolomics. **M.E. Collins, S.R. Sweeney, S. Tiziani.** University of Texas at Austin.
- E412** LB226 Cationic Derivatives of Polyisoprenoids and Commercial Lipid-Based DNA Carriers for Transfection *in vivo* in Spontaneously Hypertensive Rats. **O. Gawrys, I. Baranowska, M. Rak, S. Bobis-Wozowicz, K. Szaro, Z. Madeja, E. Swiezewska, E. Kompanowska-Jeziarska.** Mossakowski Medical Research Centre Polish Academy of Sciences, Poland, Faculty of Biochemistry, Biophysics and Biotechnology Jagiellonian University, Poland and Institute of Biochemistry and Biophysics, Poland.
- E413** LB227 Bioactive molecules isolated from olive pomace extract protect murine cortex neurons from NMDA-mediated cell death. **A. Franchi, M. Pedrazzi, A.A. Casazza, E. Millo, G. Damonte, A. Salis, M. Patrone, R. De Tullio, B. Sparatore, P. Perego, M. Averna.** University of Genoa, Italy and University of Piemonte Orientale, Italy.
- E414** LB228 Assessing anti-cancer potential of newly synthesized staurosporine analogs. **B. Hurysz, M. McFadden, E. Pelkey, P. Mowery.** Hobart & Wm. Smith Colleges.
- E415** LB229 Modulation of gap junctional intercellular communication in HaCaT cells by xenobiotics. **R.D. Shipman, J. Jost, D. Pollet, P. Waldmann.** University of Wisconsin Stout, Odisee University College, Belgium and University of Applied Sciences, Germany.

- E416** LB230 Highly efficient capture of circulating tumor cells by microarray in a microfluidic device. **H-Y. Liu, C. Hille, A. Haller, R. Kumar, K. Pantel, M. Hirtz.** Karlsruhe Institute of Technology (KIT), Germany, Universitätsklinikum Hamburg-Eppendorf, Germany and Technische Universität Wien, Austria.
- E417** LB231 Acetoacetate Enhances the Cytotoxicity of Anti-tumor Agents on MCF-7 Breast Cancer Cells Without Itself Inducing Cell Death. **B. Lin, A.I. Miller, E.J. Fine, R. Feinman, M.J. Pincus.** SUNY Downstate Medical Center and Albert Einstein College of Medicine.
- E418** LB232 Evaluation of Ant-Lion Larvae Extract As Alpha-Glucosidase and Alpha-Amylase Inhibitor. **M.M. Adeyanju, O.O. Olaniyi, O.F. Rasak, O.O. Adeosun, J.S. Ashidi, E.M. Obuotor.** Obafemi Awolowo University, Nigeria.
- E419** LB233 The assembly and function of poxvirus proteins. **N.J. Jafari, B. Szymczynna.** WMU.
- E420** LB234 SP101, a novel synthetic compound displays survivin suppression, apoptosis and tumor inhibition in both the EGFR-wild type and T790M of non-small cell lung cancer. **J-I. Chao.** National Chiao Tung University, Taiwan.
- E421** LB235 Metabolomics Analysis of Opiate Abusers from Golestan Cohort Study (GCS). **R. Ghanbari, W. Pathmasiri, S. McRitchie, D. Stewart, A. Etemadi, C. Abnet, J. Pollock, R. Malekzadeh, S. Sumner.** Nutrition Research Institute, University of North Carolina at Chapel Hill, Division of Cancer Epidemiology and Genetics, National Cancer Institute, Genetics, Epigenetics and Developmental Neuroscience Branch, National Institute on Drug Abuse, Digestive Diseases Research Institute and Tehran University of Medical Sciences, Iran.
- E422** LB236 Nicotinic acetylcholine receptor silent agonists modulate inflammation. **A. Simard, K. Richter, D. Roy, E. Soto Espinosa, P. Roy, J-R. Godin, V. Grau, M. Quadri, N. Horenstein, R. Papke.** Laurentian University, Canada, Northern Ontario School of Medicine, Canada, Université de Moncton, Canada, Justus-Liebig University, Germany and University of Florida.
- E423** LB237 EU-OPENSREEN-Innovative collaboration models for molecular biologists in early drug discovery. **B. Stechmann.** EU-OPENSREEN ERIC, Germany.

GENOMICS, PROTEOMICS AND METABOLOMICS LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E424** LB238 Super-SILAC based quantitative phosphoproteomics reveals the potential biomarkers in lung cancer. **T-F. Hsiao, C-L. Wang, Y-C. Wu, C-C. Wu, C-J. Yu.** Chang Gung University, Taiwan, Chang Gung Memorial Hospital and Linkou, Taiwan.
- E425** LB239 Ovarian Cancer Detection Using Plasma Metabolic Profiling. **H. Gu, Y. Wei, P. Jasbi, X. Shi.** Arizona State University.

- E426** LB240 Metabolic reprogramming of the stromal epigenome in ovarian cancer metastasis. **M.A. Eckert, F. Coscia, A.A. Chryplewicz, J. W. Chang, K.M. Hernandez, S. Pan, S.M. Tienda, D.A. Nahotko, G. Li, I. Blaženović, R.R. Lastra, M. Curtis, S. D. Yamada, R. Perets, S. McGregor, J. Andrade, O. Fiehn, R.E. Moellering, M. Mann, E. Lengyel.** University of Chicago, Max Planck Institute of Biochemistry, Germany, University of California, Davis and Rambam Health Care Campus, Israel.
- E427** LB241 Age Association Analysis between Tricarboxylic Acid Metabolites and Neurocognitive Impairment in Persons Living with HIV. **S. Azzam, C. Hileman, D. Schlatter, M.R. Chance, K. Tassiopoulos, R. Kalayjian.** Case Western Reserve University, MetroHealth and Harvard T.H. Chan School of Public Health.
- E428** LB242 Proteomics Profiling of Cyclosporine A Treatment of Calcineurin Isoform-Specific Renal Fibroblasts. **C.E. Francis; PhD, A. Douglass, Y. Bai.** Philadelphia College of Osteopathic Medi.
- E429** LB243 Biosynthesis of IAA and its role as signal molecule in the phytopathogenic bacterium *Pseudomonas savastanoi*. **A. Pintado Calvillo, V. Pastor, M. Cerezo, V. Flors, C. Ramos.** University of Malaga, Spain and University Jaume I, Spain.
- E430** LB244 The polymorphic region an interleukin B1 is highly associated with type 1 diabetes in Saudis. **M.A. Hamza.** King Fahad Medical City, Saudi Arabia.
- E431** LB245 Quantifying Ubiquitination Signaling with a Chemical Proteomics Strategy. **Y. Li, A. Luo, L. Erber, Y. Chen.** University of Minnesota.
- E432** LB246 Taxonomy and diversity of aldehyde dehydrogenases in bacteria of the *Pseudomonas* genus. **A. Julián-Sánchez, H. Riveros-Rosas, G. Moreno-Hagelsieb, R.A. Muñoz-Clares.** Fac. Medicina, Universidad Nacional Autónoma de México, Mexico, Colegio Benedictino, Mexico, Wilfrid Laurier University, Canada, Fac. Química and Universidad Nacional Autónoma de México, Mexico.
- E433** LB247 Metabolomic and Lipidomic Characterization of *Oxalobacter formigenes* to Define Intestinal Oxalate Secretion. **C.A. Chamberlain, M. Hatch, T.J. Garrett.** University of Florida.
- E434** LB248 Long-Term Consumption of High Protein Disrupts Dog Gut Microbiome and Metabolites. **E. E.E. Gebreselassie, D.E. Jewell.** Hill's Pet Nutrition.
- E435** LB249 Impact of *Aldh111* Knockout On Metabolic Phenotype in Mouse Liver. **J. Sharma, N.I. Krupenko, S.A. Krupenko.** Nutrition Research Institute and Department of Nutrition.
- E436** LB250 Characterization of the CRISPR-Cas13b systems in *Porphyromonas gingivalis*. **X. Zhou, J. Zhu, Z. Du, X. Huang.** Southern Illinois University.
- E437** LB251 The Study of the Impact of Genetic Polymorphism of Leptin Gene G2548A on Obesity and Its Related Traits. **T. Kamalakannan, R.S. Robert, M.S. Haq.** Rak Medical and Health Sciences University, United Arab Emirates.
- E438** LB252 Coccidioidomycosis Detection Using Targeted Plasma and Urine Metabolic Profiling. **H. Gu, P. Jasbi, N. Mitchell, X. Shi, T. Grys, Y. Wei, L. Liu, D. Lake.** Arizona State University and Mayo Clinic.

SIGNAL TRANSDUCTION AND CELLULAR REGULATION LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E439** LB253 Role of WWOX and Zfra in limiting neurodegeneration. **N-S. Chang, Y-H. Lin.** National Cheng Kung University, Taiwan.
- E440** LB254 Glucocorticoids and Inflammatory Cytokines Synergize to Maintain TLR2 Expression in Airway Epithelial Cells. **A. Bansal, M.M. Mostafa, S.V. Shah, A.N. Gerber, R. Newton.** University of Calgary, Canada and University of Colorado.
- E441** LB255 PKC α Mediates mTORC1 Activation in Non-Small Cell Lung Carcinoma Cells with EGFR Deletion Mutation. **M.F. Salama, M. Liu, C. Clarke, M. P. Espaillet, J. Haley, L. Obeid, Y. Hannun.** Stony Brook University, Mansoura University-Faculty of Vet. Medicine, Egypt and HD Biosciences Inc.
- E442** LB256 Chromosomal Instability Promotes cGAS-Mediated Cytosolic DNA Response in Metastatic Cancer. **M.E. D'Ausilio, A. Agrawal, M. Karande, T. Kolarov, J. Kushen, J. Lin, M. Mandel, S. Patel, S. Pollard, S.F. Bakhoun.** The Pingry School and Memorial Sloan Kettering Cancer Center.
- E443** LB257 Adenomatous Polyposis Coli-like protein (APCLP) Functions as a Novel Negative Regulator of NF- κ B Signaling in Colon Cancer Cells. **M. Martin, R. Mundade, T. Lu.** IU School of Medicine.
- E444** LB258 Prostaglandin E₂ signaling networks in T cells revealed through a systems approach. **A. M. Lone, P. Giansanti, M. Jøntvedt Jørgensen, E. Gjerga, A. Dugourd, A. Scholten, J. Saez-Rodriguez, A. Heck, K. Tasken.** Oslo University Hospital, Norway, University of Oslo, Norway, Chair of Proteomics and Bioanalytics, Technical University of Munich, Germany, Utrecht University, Netherlands, RWTH-Aachen University Hospital, Germany, European Molecular Biology Laboratory, United Kingdom and Crucell, Netherlands.
- E445** LB259 Celecoxib Inhibits Proliferation, Mitochondrial Respiratory Rate, and Membrane Potential in Myoblasts. **A. Kolb, M. Reynoso, A. Geddis, R. Matheny Jr.** USARIEM.
- E446** LB260 Celecoxib Impairs Differentiation of Primary Human Skeletal Myoblasts. **A. Geddis, A. Kolb, R. Matheny Jr.** USARIEM.
- E447** LB261 mTOR inhibition promotes LPS-induced acute lung injury by inducing endothelial hyperpermeability. **X. Chen, X. Fan, C. Sun.** Nanjing Medical University, People's Republic of China.
- E448** LB262 Dietary Complexation of Peanut Protein to Polyphenolic Extracts Reduces Peanut Specific Plasma IgE levels in Peanut Sensitized C3H/HeJ mice. **P.D. Randolph, R.D. Bansode, L.L. Williams, N. Plundrich, M. A. Lila.** North Carolina Agriculture and Technical State University and North Carolina State University.
- E449** LB263 The Large Tumor Suppressor (LATS) and 14-3-3 Regulate Mixed Lineage Kinase 3 (MLK3) Subcellular Localization. **S. Kasturirangan, D.N. Chadee.** University of Toledo.
- E450** LB264 Investigation of Differential Post Transcriptional Regulation of 4E-BP1 and 4E-BP2 in Eukaryotic Cells Under Stress. **S. Gobbooru, W-K. Low, S. S. Kommaraju.** St. John's University.

- E451** LB265 Characterization of MAP kinase docking specificity with yeast genetic screens. **G. Shi, B. Turk.** Yale University.
- E452** LB266 FGFR2 and TRPA1 Interaction in Lung Cancer. **E. Kyriakopoulou, N. Gamper.** University of Leeds, United Kingdom.
- E453** LB267 Effects of Photobiomodulation on Apoptosis Process After Induced Myocardial Infarction in Rats: Analysis of Gene Expression. **J.V. Maretti, M.T. Manchini, J.A. Silva Jr, A.J. Serra, R.S. Feliciano.** Nove de Julho University, Brazil.
- E454** LB268 Involvement of MURC/Cavin-4 in store-operated Ca²⁺ entry in neonatal cardiomyocytes. **G. Boulay, J. Malette, J. Degrandmaison, H. Giguère, J. Berthiaume, M. Frappier, J-L. Parent, M. Auger-Messier.** Université de Sherbrooke, Canada.
- E455** LB269 Does DMD-10 independently affect levels of GLR-1? **J. Nammour, A. McGehee.** Suffolk University.
- E456** LB270 The potential role of IDA-1 and neuromodulatory signaling in GLR-1 regulation. **S. McLaughlin.** Suffolk University.
- E457** LB271 Brown adipose tissue metabolism in arsenic environmental health and obesity. **S-H. Ro, Y. Jang, J. Bae.** University of Nebraska-Lincoln.
- E458** LB272 Annexin V and gaussia luciferase fusion protein studies for bioluminescence apoptosis detection. **A. Perez.** University of South Florida.
- E459** LB273 Peroxiredoxin VI regulates the epithelial-mesenchymal transition in colorectal cancer. **Y-H. PARK, H. S. Kim, D-S. Lee, S-U. Kim.** Korea Research Institute of Bioscience & Biotechnology (KRIBB), Republic of Korea and Kyungpook National University, Republic of Korea.
- E460** LB274 C₁₆-Ceramide directly binds and activates p53 in response to cellular stress. **K. Jeffries, N. Krupenko.** UNC Chapel Hill NRI and UNC Chapel Hill.
- E461** LB275 Characterization of Cks2 localization and interaction with Cdk1 in mitotic cells of *Xenopus laevis* embryos. **Z. Lu, Y. Kim, J.C. Sandquist.** Grinnell College.
- E462** LB276 Arl4A-PAK1 complex establishes a positive-feedback loop contributing to PAK1 activation for cell migration. **F-J.S. Lee, K-J. Chen, T-C. Chiang, C-J. Yu.** National Taiwan University, Taiwan and Chang Gung University, Taiwan.
- E463** LB277 Analysis of Photobiomodulation Effects in Cardiac Hypertrophy in Experimental Model of Myocardial Infarction. **L.O. D. Costa, A. Atum, A. Serra, M. Manchini, R.S. Feliciano, J. A.A. S. Júnior.** Nove de Julho University, Brazil.
- E464** LB278 Effects of Photobiomodulation in mRNA Expression of Extracellular Matrix Components of Cardiac Fibrosis in Experimental Post-infarcted Myocardial in Rats. **T. Costa, M. Manchini, A. Serra, A. Atum, R. Feliciano, J. Silva Jr.** Nove de Julho University, São Paulo, Brazil and Universidade Federal, São Paulo, Brazil.
- E465** LB279 Protein phosphatase 2A-B56 controls mitosis by interacting with LS/TPI/V motif containing protein interactors. **S. Chaudhuri, G. Moorhead.** University of Calgary, Canada.
- E466** LB280 Immune response mediated by NRLP3 expression in children infected with Respiratory Syncytial Virus. **E. ASSUMPCAO NETO, K. DE ANGELIS, R.D. P. VIEIRA, F.M. CONSOLIM-COLOMBO.** UNINOVE, Brazil and UNIFESP, Brazil.
- E467** LB281 The Role of Beta-2 Adrenergic Receptors in Cardiac Bioenergetics Following Severe Burns. **A. El Ayadi, A. Prasai, J. Jay, N. Bhattari, A. Guilory, D. Herndon, C. Porter, C. Finnerty.** University of Texas Medical Branch and Shriners Hospital for Children.
- E468** LB282 Zylamend Induces Apoptosis in Pancreatic Cancer Cells via Modulation of the JNK Pathway. **A. B. Bettaieb, D. Puckett, S. Chahed, J. Whelan.** The University of Tennessee and Knoxville.
- E469** LB283 RB and CDKN2A cause Rapamycin resistance in cancer cells. **S. Chakraborty, M. Utter, D. Foster.** Hunter College and CUNY.
- E470** LB284 Temporal inhibition of ERK Activity by Optogenetic Control of MAPK Phosphatase 3. **S.R. Sharum, P. Mondal, K. Cho, K. Zhang.** University of Illinois at Urbana-Champaign.
- E471** LB285 The MAL/SRF Pathway Regulates Desmosome Protein Expression and Localization in Cancer Cells. **A.D. Dubash, L. Eldredge.** Furman University.

BACTERIA AND PARASITES: FROM MICROBIOME TO ANTIBIOTICS LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E472** LB286 The Effect of Cinnamon Essential Oil on *Escherichia coli*. **V.R. Adams, A.K. Johnson, F.B. Santos, A.A. Santos Jr.** AdventHealth University.
- E473** LB287 The Effect of Cinnamon Essential Oil on *Lactobacillus* species. **V.R. Adams, A.K. Johnson, F.B. Santos, A.A. Santos Jr.** AdventHealth University.
- E474** LB288 Analysis of Genes that Mediate Persistence in Halophilic Microbes Subjected to Osmotic Shock. **A.M. Gregory, M.R. Miranda-Katz, M.R. Miranda-Katz.** Colby College.
- E475** LB289 Inhibition of Multi-Resistance Bacteria by Acetone Extract of *Cola acuminata*. **C.M. Telles, C. McKinsey, W. Gray.** Southern University and A&M College.
- E476** LB290 Comparative Microbiome Analysis of House Dust Mites, the Most Common Cause of Allergens. **T-S. Yong, J. Lee, J. Y. Kim, M-h. Yi, I-Y. Lee, S-H. Nam, D. Yong.** Yonsei University College of Medicine, Republic of Korea.
- E477** LB291 *Arabidopsis* Histone Deacetylase 5 is Required for *Pseudomonas*-Induced Deacetylation of Histone H3 at Lysine 9. **K. van Dijk, P. Kim, T. Hubbard, L. Nguyen, M. Guo, J. Alfano.** University of Nebraska-Lincoln and Creighton University.
- E478** LB292 Aplysinopsins Inhibit Growth of *Cryptococcus neoformans* by Interfering with Inositol Metabolism. **J. Moss, A. Clouse, D. McCullough, D. Wloch-Salamon, P. Johnson, D. Bialonska.** University of North Georgia, Institute of Environmental Sciences and Jagiellonian University, Poland.
- E479** LB293 Effects of Transplanting an Exercised or Sedentary Microbiota into Gnotobiotic Mice on Global Gene Expression in Gut, Muscle, and Brain Tissue. **L.J. Mailing, J.M. Allen, S.S. Wang, P. Kashyap, B.A. White, J.A. Woods.** University of Illinois at Urbana Champaign, Nationwide Children's Hospital and Mayo Clinic.
- E480** LB294 How *Entamoeba histolytica* goes vampire: the hunt for new genes in the conserved process of trophocytosis. **S.E. Feeny, K.S. Ralston.** University of California and Davis.
- E481** LB295 Evolutionary, Functional and Structural Studies of the ALDH27 Enzymes. **R.A. Muñoz-Clares, A.L. Juárez-Vázquez, Y.V. Cardona-Cardona, L. González-Segura, H. Riveros-Rosas, I. Regla.** Universidad Nacional Autónoma De México, Mexico.
- E482** LB296 The Phylogenetics of *Rhipicephalus sanguineus* and its Role as a Vector of Rocky Mountain Spotted Fever. **C. Schaefer, J. Allen, T. Yao, H. Owen, S. Lisowski, J. VandenBrooks.** Midwestern University.

- E483** LB297 Shocking! The Effect of TSST-1 in Toxic Shock Syndrome. **M. Arnholt, D.H. Munzenmaier, E. Anderson, C. Benson, J. Brown, M. Colwell, T. Colwell, M. Flanagan, L. Hautala, D. Hennes, G. Hoffmann, C. Kennedy, L. Lisowski, T. Stoeckmann, E. Witt, R. Zuern.** Hartford Union High School and Milwaukee School of Engineering.
- E484** LB298 The Synergistic Effect of Fiber Blends on *Lactobacillus rhamnosus*. **A.K. Johnson, V.R. Adams, B.B. Walker, F.B. Santos, A.A. Santos Jr.** AdventHealth University.
- E485** LB299 Characterization of Three Foodborne Bacteria using Hyperspectral Microscopy. **R.D. Riggs, I-H. Chen, J. Barbaree, B. Zinner, I. Sorokulova, V. Vodyanoy.** Auburn University College of Veterinary Medicine and Auburn University.
- E486** LB300 Microbial Co-occurrence Patterns and Keystone Species in the Gut Microbial Community of Mice in Response to Stress and Chondroitin Sulfate Disaccharide. **R.W. Li, F. Liu, X. Li, C. Xue, Q. Tang.** USDA-ARS, Ocean University of China, People's Republic of China and Ocean University of China, People's Republic of China.
- E487** LB301 Bio-risk assessment research on genetically engineered cyanobacteria for sustainable biofuels. **T. Nguyen, C. Barnes, S. Sherazi, J. Agola, L. Greene, J.W. Lee.** Old Dominion University.

METABOLISM AND BIOENERGETICS LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL—WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E488** LB302 Bile Acid Excess Impairs Thermogenic Function in Brown Adipose Tissue. **W. Zhou, P. VanDuyne, R. Riessen, O. Akinrotimi, S. D'Souza, S. Anakk.** University of Illinois at Urbana-Champaign.
- E489** LB303 Osteogenic and chondrogenic differentiation effect of neohesperidin dihydrochalcones in human adipose-derived stem cells. **H. S. Heo, J. H. Cha, J. H. Lee.** CHA University, Republic of Korea.
- E490** LB304 Analysis of an Omega 6:3 Balanced Diet Impact on Hibernation Behavior and Cortisol of Captive Arctic Ground Squirrels. **M.L. Mikes, S.A. Rice, D. Bibus, K.L. Drew.** University of Alaska Fairbanks, Lipid Technologies and LLC.
- E491** LB305 Expression Of Irisin And Its Relation With Anthropometric And Biochemical Parameters In Diabetes Mellitus Type II Patients. **M. I.S. Mendonça, V.L. Mathia, D.P. Simões, M.M. Perez, M.R. Bacci, N. Murad, J.A. Encinas, B.d. C. A. Alves, F. L.A. Fonseca, G.L. da Veiga.** Faculdade de Medicina ABC, Brazil and Universidade Municipal de São Caetano do Sul, Brazil.
- E492** LB306 MicroRNA Profile in Metabolic Heart Disease. **M.G. Rosca, N. Mekala, J.G. Kurdys, C. Avramut, J. Santos, N.P. Ragina.** Central Michigan University College of Medicine.
- E493** LB307 Assessment of Cellular Respiration and Oxidative Phosphorylation in Cocks Semen after Freezing. **E. Nikitkina, A. Musidray, S. Timofeeva, A. Krutikova, K. Plemayashov, N. Pleshonov.** Russian Research Institute of Farm Animal Genetics and Breeding, Russian Federation.
- E494** LB308 Quantifying the Contribution of Cardiomyocyte Metabolic Dysfunction to the Heart Mechanical Function. **R. Lopez, X. Gao, F. Van den Bergh, D. Beard.** University of Michigan.
- E495** LB309 Early Alterations in the Expressions of MCTS and HIF-1 α in Experimental Diabetes Mellitus. **J.F. A. Encinas, M.M. Perez, C. H.F. Peiró, G. Petri, D.P. Simões, V.L. Mathia, M. I.S. Mendonça, B.d. C. A. Alves, F. L.A. Fonseca, G.L. da Veiga.** Faculdade de Medicina do ABC-FMABC, Brazil, Universidade Municipal de São Caetano do Sul, Brazil and Universidade Federal de São Paulo, Brazil.
- E496** LB310 Changes in VEGF and HIF 1 α gene expression levels as potential diagnostic/prognostic markers in liquid biopsies on breast cancer patients. **C. H.F. Peiró, J.F. A. Encinas, G.S. A. Aquino, G.L. Veiga, M.M. Perez, F.L. A. Fonseca, B.C. A. Alves.** FMABC, Brazil.
- E497** LB311 Elucidating diterpene biosynthesis in *Setaria italica* (foxtail millet) towards enhancing stress tolerance in food crops. **P.S. Karunanithi, D. Berrios, S. Wang, P. Zerbe.** UC Davis.
- E498** LB312 Ate1 Controls Cellular Warburg Effects by Modifying Hif1a with Arginylation. **B. T. Moorthy, C. Jiang, D. M. Patel, A. Kumar, M. D. Birnbaum, B. Alfonso, J. Huang, A. Barrientos, T. J. Lampidis, F. Fontanesi, F. Zhang.** University of Miami.
- E499** LB313 Control of Cardiac Mitochondrial Fuel Selection by Calcium. **E. Jones, F. Van den Bergh, S.M. Kandel, S.K. Dasika, R.K. Dash, D.A. Beard.** University of Michigan and Medical College of Wisconsin.
- E500** LB314 *Ganoderma Lucidum* polysaccharide inhibits lipid accumulation *in vivo* and *in vitro* by activating HIF-1 α through ERK1/2 signaling pathway. **Y. Wang, C. Guo, H. Pan, T. Sang, Y. Wang, D. Guo, X. Wang.** Zhejiang Chinese Medical University, People's Republic of China.
- E501** LB315 Metabolomic analysis of a mouse model of NASH and correlation with cytokine expression. **C. McDermott, B. Eudy, R. da Silva.** University of Florida.
- E502** LB316 NAG-1/GDF15 inhibits HFD-induced obesity and inflammation by modulating gut microbiota. **T. Sang, C. Guo, D. Guo, K. Na, K. Wu, K. Li, X. Wang.** Zhejiang Chinese Medical University, People's Republic of China.
- E503** LB317 Adaptive effects of prolonged mitochondrial-targeted catalase on adipocyte differentiation. **S. Yang, H. Esterly, K. Tavares, B. Christian.** Appalachian State University.
- E504** LB318 LPS-induced mTORC1 Signaling Activates Lipid Raft-Actin Cytoskeletal Interactions for Phagocytosis through SREBP-1 α . **J-H. Lee, D. Y. Kim, S. H. Lee, D-K. Song, J-H. Bae, S-S. Im.** Keimyung University, Republic of Korea.

LIPIDS AND MEMBRANES LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E505** LB319 That's Swell! The Role of Aquaporin in an Inflammatory Response. **M. Arnholt, L. Betts, A. Hawkins, M. Herro, A. Hoefs, F. Powers, B. Sill, D.H. Munzenmaier.** Hartford Union High School and Milwaukee School of Engineering.
- E506** LB320 The Multifaceted Role of Lipid A 1-phosphatase in Bacterial Envelope Biogenesis. **J. Zhao, J. An, D. Hwang, Q. Wu, S. Wang, R.A. Gillespie, E. G. Yang, H. S. Chung, P. Zhou.** Duke University Medical Center and Korea Institute of Science and Technology, Republic of Korea.
- E507** LB321 Impacts of a Balanced Omega 6:3 Diet on Fatty Acid Deposition in White and Brown Adipose Tissue and Circulating Plasma in the Hibernating Arctic Ground Squirrel. **S. Rice, M. Mikes, K. Drew, D. Bibus.** University of Alaska at Fairbanks, Lipid Technologies and LLC.
- E508** LB322 Mediation of Vesicular Fusion by SNARE Proteins during Macroautophagy. **D. Shannon, J. Glass, M. Bartlett, T. Bismeyer, M. Bradley, S. Buehler, S. Campman, J. Glass, L. Gutzwiller, T. Hoffman, N. Kellogg, E. Mahan, K. Peters, G. Poetker, S. Schaller, J. Diao.** Archbishop Moeller High School, Mount Notre Dame High School and University of Cincinnati College of Medicine.
- E509** LB323 Impact of the lipid bilayer on energy transfer kinetics in the photosynthetic protein LH2. **A.L. Tong, G. Schlaucohen, J. Ogren, J. Cao, A. Chenu, S. Gordon, R. Blankenship, Y. Lu.** MIT and Washington University.
- E510** LB324 Lipid Composition Alters the Assembly of MHCII in Nanodiscs. **K. Rivera, J. Polanco, J. Kaur Osan, T. Kuhn.** University of Alaska Fairbanks.
- E511** LB325 Dietary Rice Bran Oil and γ -Oryzanol Attenuates Toll Like Receptor-mediated $\text{I}\kappa\text{B}\alpha$ Phosphorylation, NF- κB p65 Activation and Matrix Metallo Protease-9 Expression in Peritoneal Macrophages from Rats Fed Partially Hydrogenated Vegetable Fat and thereby Exhibit Anti-Inflammatory Activity. **P.C. Yalagala, S. Dhavamani, P. K. Pandugala, B. Lokesh.** University of Illinois at Chicago, Asian Institute of Gastroenterology, India and CSIR-Central Food Technological Research Institute, India.
- E512** LB326 A Reassessment of Phosphatidylinositol Transfer Protein Alpha's Growth Factor Signaling Role. **M.I. McDermott, R. Diz, S. Hur, M.G. Lete, C.J. Applebee, A. Grabon, A. Tripathi, M.J. O. Wakelam, B. Larijani, V.A. Bankaitis.** E. L. Wehner-Welch Laboratory, Texas A&M Health Science Center, Ikerbasque Basque Foundation for Science, Research Center for Experimental Biology and Biotechnology (PiE) and Biofisika Instituto (UPV/EHU/CSIC) and University of the Basque Country, Spain and The Babraham Institute, United Kingdom.

BIOCHEMISTRY OF ORGANELLES AND ORGANELLE TRAFFICKING LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E513** LB327 Glucose Metabolism Regulates Mitochondrial Supercomplex Abundance in Murine Heart. **v.o. shang, Y-T. Zheng, S. Q. Liu, L. A. McNally, B. Hill.** University of Louisville and Beijing Genomics Institute, People's Republic of China.
- E514** LB328 Increased hexokinase interactions with mitochondria protect against cell damage. **D. Sampe.** Brown Deer High School.
- E515** LB329 Distinct Missense Mutations of the Parkinson's Disease-Related Ubiquitin Kinase PINK1 Alter Auto- or Substrate-Phosphorylation. **W. Springer, D. Truban, T.R. Caulfield, R. Hudec, X. Hou, L.J. Lewis-Tuffin, A.M. McCarty, A.I. Soto, R.L. Walton, A. Puschmann, Z.K. Wszolek, O.A. Ross, F.C. Fiesel.** Mayo Clinic and Skåne University Hospital, Sweden.
- E516** LB330 Novel Regulation of Lipid Metabolism by a Phosphatidylinositol Transfer Protein and a Phosphatidylinositol 4-Kinase. **Y. Wang, P. Yuan, M. Rodriguez, A. Tripathi, M. Lönnfors, M. Schuldiner, W. S. Moye-Rowley, V. Bankaitis.** Texas A&M University, Texas A&M Health Science Center, Weizmann Institute of Science, Israel and University of Iowa.
- E517** LB331 Marinobufagenin, a mammalian endogenous cardiosteric steroid, is synthesized from the intermediates in the classical bile acid pathway in Cyp27A1 knockout mice. **L. Zheng, Y. Grigorova, K. Ramirez, V. Zernetikina, W. Wei, N. Petrashevskaya, O. Juhasz, R. Fenner, E. Lakatta, A. Bagrov, O. Federova.** NIH.

GLYCANS AND GLYCOBIOLOGY LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

- E518** LB332 Isolation and Identification of C-Mannosylated Hsc70 Conjugates in RAW 264.7 Macrophage-Like Cells. **M.A. Parsons.** Marshall University.
- E519** LB333 Glucosamine Fructose 6-phosphate Aminotransferase (GFAT) from *Plasmodium berghei*: a clue for novel therapeutic perspectives? **M. E. Laugier, A. D. F. De Flora, M. Tonetti.** Università Degli Studi di Genova, Italy.

E520 LB334 Species-specific differences in heparin-induced modulation of IL-12 family cytokines. **K.G. Nguyen, R.K. Gundampati, G. Su, S. Kumar Thallapuram, J. Liu, D.A. Zaharoff.** Joint Department of Biomedical Engineering, University of North Carolina at Chapel Hill, Chapel Hill, NC, and North Carolina State University, Raleigh, NC, Department of Chemistry & Biochemistry, University of Arkansas, Fayetteville, AR, Division of Chemical Biology and Chemistry, Eshelman School of Pharmacy, University of North Carolina, Chapel Hill, NC.

INTERDISCIPLINARY/TRANSLATIONAL SCIENCE (SEBM) LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

E521 LB335 Oncogenic mechanism of soluble Keratin 17 offers potential therapeutic vulnerability in pancreatic cancer. **R.R. Kawalerski, L. Roa-Peña, T. Boyle, C.V. Leiton, N.T. Snider, K.R. Shroyer, L.F. Escobar-Hoyos.** Stony Brook University, Stony Brook Medicine, University of North Carolina at Chapel Hill and Memorial Sloan Kettering Cancer Center.

E522 LB336 Sulforaphane Induces Colorectal Cancer Cell Proliferation through Nrf2 Activation in a p53-Dependent Manner. **J. Oh, J-S. Kim.** Kyungpook National University, Republic of Korea.

E523 LB337 Activation of Histone Deacetylase 6 (HDAC6) in the diabetic retina and in retinal endothelial cells exposed to glucidic stress, promotes oxidative stress through suppression of the thioredoxin system. **H.A. Abouhish, M.C. Thounaojam, R.N. Jadeja, P.M. Martin, M.M. Khriza, M. Bartoli.** Augusta University and Faculty of medicine at Mansoura University, Egypt.

E524 LB338 Delineating the Link Between Dilated Cardiomyopathy and Arrhythmogenic Symptoms. **T. Muser, D. Feyen, A. Bruyneel, M. Mercola.** Biola University and Stanford University.

E525 LB339 Bioinformatic Identification of Candidate miRNA Biomarkers for Traumatic Brain Injury. **C. Smothers, G.C. O'Connell.** Case Western Reserve University.

E526 LB340 Direct Current Electric Fields Induce Collective Migration of Human Corneal Epithelial Monolayers. **A. Contreras, K. Zhu, L. Guo, R. Lee, L. Campanello, W. Losert, M. Zhao.** University of California Davis and University of Maryland.

E527 LB341 Toxicity and Immunogenicity of a Tardigrade Cytosolic Abundant Heat Soluble Protein. **H.J. Esterly, C. Crilly, S. Piszkiwicz, G. Pielak, B. Christian.** Appalachian State University, UNC Chapel Hill and Chapel Hill.

BMB EDUCATION AND PROFESSIONAL DEVELOPMENT LATE BREAKING RESEARCH

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 12:15 PM–1:30 PM

Authors at boards:

Even board #: 12:15 PM–1:00 PM

Odd board #: 12:45 PM–1:30 PM

Board# Pub#

E528 LB342 Preliminary Results of Assessing the Impact of a High School Science Outreach Program on the Confidence, Attitudes, and Skills of the Participants. **I. Calderon, R. Mina.** The Summit Country Day School and University of Cincinnati.

E529 LB343 Avoiding a Swelled Head: Aquaporin-4 and Brain Edema. **K. Shelton, G. Gross, M. Baca, N. Kaka.** Chicago Public Schools.

E530 LB344 Promoting Team Building, Collaboration and Communication Skills in Graduate Students through Interactive Scientific Retreats. **J.M. Schmidt, J.T. Porter, V. Rivera-Amill, C.B. Appleyard.** Ponce Health Sciences University-Ponce Research Institute, Puerto Rico.

E531 LB345 TmAFP Interaction with an Ice Lattice. **B. MacGillivray, J. Greig, K. Bai, C. Fu, A. Fujikawa, G. Hopkins, R. Illianu, A. Kim, T. Lalapet, C. Miao, V. Ramirez, M.T. Vo.** Ashbury College, Canada.

E532 LB346 A comparative analysis between PrPc and PrPsc to determine the structure-function relationship of protein misfolding in Scrapie prion disease. **A. Peterson, C. Borisova, P. Bunday, M. Gong, D. Hernandez Merlin, N. Kachkovsky, E. Quist, M. Y. Yeoh.** Minnetonka High School.

E533 LB347 Enhancing Biochemistry Lab with Arduino. **E. Galembeck, J.P. Candido, A. P.P. Macedo, C.A. Bortolato.** UNICAMP, Brazil.

E534 LB348 The Snow Flea Antifreeze Protein and Cryopreservation. **B. MacGillivray, J. Greig, N. Alonso Cobo, A. Chow, B. Han, L. He, M. Mark-George, Z. Niu, E. Wai, Y. Wang, M. Xiao.** Ashbury College, Ottawa, Canada.

E535 LB349 Squishing Cellular H₂O. **B. Bartolomei, P. Bogdon, M. Frazer, R. Johnson, D. Lopez, S. Mergens, A. Nichols, J. Owens, T. Rall, A. Rhodes, A.W. Shipley, E. Simmons, Z. Wright, S.A. Galea-Martinez, C. Bresniker.** El Capitan High School.

E536 LB350 Ras and RTK: PI3K Activation, PIP3 Formation, Signal Transduction, Cancer Creation. **C. Chou, K. Lubkeman, R. Martyr, R. Adler, C. All, J. Arroyo, C. Austin, G. Daniel, E. Fehlberg, E. Grassmick, M. Greer, I. Hak, G. Hubbell, G. Olmstead, A. Perez, L. Roberts, E. Skaggs, F. R. Tafoya, J. Whitted, J.J. Falke.** Longmont High School and University of Colorado.

Pathology

LATE-BREAKING: PATHOLOGY, PATHOGENESIS, AND PATHOBIOLOGY

SUN. 10:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Board# Pub#

- A70** LB1 Cell line xenograft growth in the B6;129-*Rag2^{tm1Fwa}/IL2rg^{tm1Rsky}/DwlHsd* (R2G2) mouse model. **J. Naden.** Envigo.
- A71** LB2 CREB-Regulated miR-27b Is Linked to Hepatic Insulin Resistance by Targeting Insulin/Akt Signaling. **S-h. Hsu, Y-J. Chen.** College of Medicine and National Taiwan University, Taiwan.
- A72** LB3 Murine Mouse Models of Metastatic Colorectal Cancer in Lungs: Foci Counts in Three Dimensions. **C. Monteith, H. Jackson, J. Mechanic, V. Vemuri, C. Daniel, K. Parker, M. Martinez, K. Scott, N. Farahani, S. England.** 3Scan, Inc, Vium and Inc.
- A73** LB4 Hepatic Protoporphyrin IX activates NF-κB inflammatory pathway through a non-canonical mechanism. **Y. Liu, M.A. Correia.** UCSF.
- A74** LB5 Work in the Cold: A Systematic Review of How the Chronic Exposure to Low Temperatures May Explain Painful Soft Tissue Disorders. **W. Remigio, M.Y. Trygar, J. Schweiger, M. Fairchild.** Misericordia University.
- A75** LB6 Induction of IL-10 in Bone-Marrow Derived Macrophages by *Helicobacter Hepaticus* Supernatant is Mediated by Gpr109a. **A. Al-odaini, N. Singh.** North central college and Augusta University.
- A76** LB7 Immuno-stimulating Activities of Purple Corn Stems. **H. Kim, A-R. Park, H-Y. Lee, S-B. Kwon.** Gangwondo agricultural research & extension services, Republic of Korea.
- A77** LB8 Investigation of Immunologic Responses Following Chronic Opioid Use to Treat Lower Back Pain. **C.J. Wenthur, R. Bonakdar, K.D. Janda.** UW-Madison, Scripps Health and The Scripps Research Institute.
- A78** LB9 Investigating the role of endothelial cell-specific p110β isoform of PI3K as a potential target for anti-angiogenic therapy. **A. K. Azad, P. Zhabyeyev, G. Oudit, R. Moore, A. Murray.** University of Alberta, Canada.
- A79** LB10 Fat Emboli in the Rat Aorta in a Model of Fat Embolism Syndrome. **A. Siddiqi, A. Fotouhi, M. Vandillen, A. Fotouhi, N. Silswal, D. Arif, A. Poisner, P. Monaghan, A. Molteni.** University of Missouri-Kansas City and University of Kansas.
- A80** LB11 Effect of Anti-hypertensive Treatment Lisinopril on Anxiety-like Behavior in Adult Hypertensive Dahl Salt-Sensitive Rats. **R.C. Fenner, Y. Grigorova, R. McDevitt, N. Petrashevskaya, W. Wei, E. Lakatta, O. Fedorova.** National Institute on Aging.
- A81** LB12 Accurate segmentation of prostate cancer histomorphometric features using a weakly supervised convolutional neural network. **J.D. Bukowy, H. Foss, S.D. McGarry, A. Lowman, S. Hurrell, K.A. Ickzkowski, A. Banerjee, A. Barrington, A. Dayton, J. Unteriner, K. Jacobsohn, W. See, M. Nevalanian, A. Nencka, T. Ethridge, D. Jarrard, P. LaViolette.** Medical College of Wisconsin and University of Wisconsin.
- A82** LB13 Exercise Reduces Proportions of Tumor Resident Myeloid-Derived Suppressor Cells. **J. Garritson, J. Haughian, N. Pullen, R. Hayward.** University of Northern Colorado.

LATE-BREAKING: PATHOLOGY, PATHOGENESIS, AND PATHOBIOLOGY

MON. 10:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Board# Pub#

- A74** LB50 Effects of Omega-3 Polyunsaturated Fatty-Acid Supplementation on Neuropathic Pain Symptoms and Sphingosine Levels in Mexican-Americans with Type 2 Diabetes. **A. Duran, L. Salto, J. Camara, A. Basu, Y. Paquien, L. Beeson, A. Firek, Z. Cordero-MacIntyre, M. De Leon.** Loma Linda University.
- A75** LB51 Role of Sirt3 in Lipid Generation. **T.P. Le, O. Ma, G. Talbott, L. Ho.** California Northstate University.
- A76** LB52 Determination of the Role of LOX-1 during *Escherichia coli* Pneumonia. **W. Molina, F. Korkmaz, E. Symer, M. Jones, J. Mizgerd, K. Traber, L. Quinton.** University of Puerto Rico-Mayaguez and Boston University.
- A77** LB53 The stable and unstable function of Bioenergy, in the immunological and neuronal environment of cancer, viral infection and bacteria. **G.P. Einstein, O.L. Tulp, C.M. Konyk, M.S. Rahman.** USAT Montserrat, Montserrat and Einstein Medical Institute.
- A78** LB54 Defining the Role of Type I Interferon Signaling in the Increased Accumulation of Versican in Lungs of Mice Exposed to Influenza Infection. **J. Brune, M. Chang, J. Felgenhauer, B. Johnson, M. Larmore, W. Altemeier, C. Frevert.** University of Washington.
- A79** LB55 Evaluation of NanoString Technology for Detection and Genotyping of Human Papillomavirus (HPV). **S. Patel, E. Unger, M. Rajeevan.** Centers for Disease Control and Prevention.
- A80** LB56 RhoA and MAPK Pathway in Toxin-induced Production of TNF-α during *Clostridium difficile* Infection. **X. Sun, S. Wang, H. Feng.** University of South Florida and University of Maryland.
- A81** LB57 Integrin receptor α₄β₇+ CD4 T cells promote mucosal and hepatic inflammation in NASH. **R. Raeman, F.A. Anania, C. Parkos, A. Nusrat, P. Kumar, C. Desai, S.S. Iyer, Y. Liu.** University of Pittsburgh, FDA/CDER/OND/ODE III, University of Michigan, Emory University, Charotar University of Science and Technology, India, University of California and Davis.
- A82** LB58 The result of histochemical research in the diagnosis of steatosis in cows. **A. Votinceva, A. Nikitina, G. Nikitin, S. Kovalev, K. Plemyashov, P. Anipchenko, A. Netschajew, G. SHCHerbakov.** SPb State Academy of Veterinary Medicine, Russian Federation.
- A83** LB59 Co-delivery of curcumin and fish oil in phospholipid nanoemulsions attenuates motor impairments and neuro-inflammation in MPTP induced Parkinson's disease rat model. **S. Dhavamani, B. Lokesh.** University of Illinois and CSIR-Central Food Technological Research Institute, India.
- A84** LB60 Interaction Between Fibrinogen and the Microglial CD11b Receptor Mediates Several Neuropathological Alterations in a Mouse Model of Alzheimer's Disease. **G. Muthukumar, M. Merlini, V.A. Rafalski, J.K. Ryu, L. Mucke, K. Akassoglou.** Gladstone Institutes, University of California and San Francisco.

- A85** LB61 Inhibition of the Rho-kinase (ROCK) pathway improves morphology and stress granule formation in ALS4 patient iPSC-derived motor neurons. **J. Amaya, C. Grunseich, K. Fischbeck.** National Institute of Neurological Disorders and Stroke.
- A86** LB62 Impaired Myelination in the Aging Primate Brain: Quantification using a Combination of Novel Label-Free Spectral Confocal Reflectance (SCoRe) Microscopy and Fluorescent Immunohistochemistry (IHC). **K. Trecartin, W. Tyler, T. Haydar, D. Rosene.** Boston University School of Medicine.
- A87** LB63 Notch1 Overexpression in Cardiac Mesenchymal Stem Cells Renders their Exosomes Highly Effective in Promoting Angiogenesis and Cardiac Regeneration. **W. Xuan, Y. Tang, M. Ashraf.** Augusta University.
- A88** LB64 Interleukin-22, a Pro-inflammatory Cytokine, is Increased in the Serum of Canines with Inflammatory Bowel Disorder. **K.S. Panickar, R.L. Hollar.** Hills PNC.
- A89** LB65 Role of the Microbiome on the Modulation of the Intestinal Barrier in LPS Rats. **Z. Peng, A. Sundaresan, D. Bick, S. Umar, M-F. Doursout.** McGovern Medical School, Texas Southern University and University of Kansas.

LATE-BREAKING: PATHOLOGY, PATHOGENESIS, AND PATHOBIOLOGY

TUES. 10:00 AM—CONVENTION CENTER, EXHIBIT HALL—WEST HALL B

Board# Pub#

- A86** LB351 Post Stroke Depression: the Mechanisms, Prevention and Therapy Through Holistic Treatment Approach. **M. Santos.** USAT.
- A87** LB352 Flow Cytometry Analysis of Anastasis in Cultured Mammalian Lymphocytes. **C.J. Moran, R. Lauzon.** Union College.
- A88** LB353 Integrated of Sigma Quanta Energy in Psycho-Neuro-Physio Dynamics Therapy for Symptoms & Cause of Osteoarthritis: A Case Study. **F.L. Sainvil, G.P. Einstein, C.M. Konyk, O.L. Tulp, M.S. Rahman.** USAT Montserrat, Montserrat and Einstein Medical Institute.
- A89** LB354 Qualitative and Comparative Analysis of Antemortem vs. Postmortem Root Hair Banding Use in Forensic Science. **A.G. Wiggins.** Saint Leo University.
- A90** LB355 Sox100B is required in the ovary peritoneal muscle sheath development in *Drosophila melanogaster*. **A. Melendez, B. Biteau.** University of Puerto Rico at Mayagüez and University of Rochester School of Medicine and Dentistry.
- A91** LB356 Effects of Fibroblast Growth Factor 1 (FGF-1) on *CCN2* Gene Expression in Chondrocytic Cells. **A. Elseoudi, T. Abd Elkader, T. Nishida, T. Eguchi, E. Aoyama, T. Hattori, M. Takigawa, S. Kubota.** Okayama University, Japan.
- A92** LB357 Elucidating the Role of an Atypical Anti-Termination Two-Component System in Mycobacterial Gene Regulation and Pathogenesis. **H. Davenport, K. Rohde.** University of Central Florida.
- A93** LB358 Airway Caliber is Linked to Wall Thickness in Mice: Implications for Morphometry. **D.K. Meyerholz, A.P. Beck.** University of Iowa Carver College of Medicine and Albert Einstein College of Medicine.
- A94** LB359 Upregulated miR-144-3p Attenuates LPS-induced Acute Lung Injury via Inhibition of ROCK1 Signaling Pathway. **M.R. Siddiqui, M. Tauseef, M. Shahid, K. Macdonough, T. Shanley.** Northwestern University, Ann & Robert H. Lurie Children's Hospital of Chicago and Chicago State University.
- A95** LB360 Impact of Genetic Variation of α ENaC on Clinical Presentation in Cystic Fibrosis. **H. Zavala, J. Dunitz, R. Sprissler, E. Snyder.** University of Minnesota-Twin Cities, University of Arizona and Geneticure.
- A96** LB361 PM2.5 Activates Sirtuin-SREBP1-PIR Axis to Induce Pulmonary Fibroblast Inflammation: A Molecular Mechanism Model of Environmental Factor Induced Lung Fibrosis and COPD. **C-P. Tien, Y-C. Chang, S-C. Hung, M. Hsiao.** Academia Sinica, Taiwan, China Medical University, Taiwan and China Medical University Hospital, Taiwan.
- A97** LB362 Increased APC mutations in MRI risk-stratified colorectal liver metastases. **A. Seth, Y. Amemiya, H. Cheung, E. Hsieh, C. Law, L. Milot.** Sunnybrook Health Sciences Centre, University of Toronto, Canada, Sunnybrook Research Institute and University of Toronto, Canada.
- A98** LB363 Identification of Actionable Genomic Alterations in Tissue Using Idylla™. **K. Dillehay McKillip, M. Koch, K. Hodges.** University of Cincinnati.
- A99** LB364 Detecting a Tumor Suppressor Protein (p16INK4a) in Zebrafish (*Danio rerio*). **C.J. Rodriguez, D.M. Garcia.** Texas State University.
- A100** LB365 Soft Three Dimensional Stromal Matrix Confines Pancreatic Cancer Cells Through Induction of Autophagy Lysosome Flux. **Y. Han, J. Cheng, P. Wu, H. Yang, C. Zhang, Y. Zeng, Y. Liu, M. Luo, S.L. Pandol.** Sichuan University, People's Republic of China, Public Health and Clinical Center of Chengdu, People's Republic of China and Cedars-Sinai Medical Center.
- A101** LB366 The Prognostic Value of Ephrin Type-A2 Receptor (EPHA2) and Ki67 in Renal Cell Carcinoma Patients: An Immunohistochemical and Bioinformatical Approach. **I.M. Talaat, I.S. Okap, S.M. El Sheikh, T.M. Abou Youssif, I.Y. Hachim, M.Y. Hachim.** Faculty of Medicine, Alexandria University, Egypt, College of Medicine, University of Sharjah, United Arab Emirates, McGill University Health Centre, Canada, Sharjah Institute for Medical Research and University of Sharjah, United Arab Emirates.
- A102** LB367 Neuronal metaplasia: A pituitary adenoma with gangliocytic component and growth hormone (GH) secretion. **F. Rotondo, N. Amaral, D.G. Munoz, K. Kovacs, M.D. Cusimano.** St. Michael's Hospital, Canada and Keenan Research Centre for Biomedical Science at the Li Ka Shing Knowledge Institute, Canada.
- A103** LB368 The Effects of CLCN2 Knockout on Epileptic Absence Seizures. **N. Naik, M. Beenhakker.** University of Virginia.
- A104** LB369 Urethral Smooth Muscle Dysfunction in Middle-aged Male Rats May Affect Micturition. **E.C. Alexandre, M.G. d. Oliveira, F.H. Silva, F.B. Calmasini, H.F. d. Carvalho, N. Yoshimura, E. Antunes.** University of Campinas, Brazil and University of Pittsburgh.
- A105** LB370 Expression of FOXA1 and GATA3 correlates with invasivity and pathological stage a grade of primary transitional cell carcinoma of the bladder. **S. Ziaran, Z. Varchulova Novakova, K. Bevizova, S. Harsanyi, P. Bujdak, S. Galbavy, L. Danisovic.** Faculty of Medicine and Comenius University, Slovakia.
- A106** LB371 The Effect of Acute Cadmium Exposure on the Vascular Endothelial Barrier Antigen and Astrocyte Morphology in the Developing Rat Central Nervous System. **M.O. Ibiwoye, Q. Matthews, P. McElroy, J.D. Foster.** Alabama College of Osteopathic Medicine, Alabama State University and Montgomery.

- A107** LB372 Evaluation of Dry Eye Syndrome Induced by Urban Particulate Matter Using Aerosol Exposure System. **T. G. Lee, S-W. Hyun, B. Park, K. Jo, I. S. Lee, J. S. Kim, C-S. Kim.** Korea Institute of Oriental Medicine, Republic of Korea.
- A108** LB373 Characterization of Microcystin-Induced Apoptosis in HepG2 Cells. **A. Krishnan, G. Koski, X. Mou.** Kent State University.
- A109** LB374 Hematological status of newly-calved cows with mineral metabolism disturbance. **K. Plemyashov, G. Nikitin, A. Nikitin, S. Kovalev, V. Trushkin, P. Anipchenko, A. Votinceva, A. Batrakov.** SPb State Academy of Veterinary Medicine, Russian Federation.

Pharmacology

LATE BREAKING: TOXICOLOGY

SUN. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM—12:00 PM

Board# Pub#

- B261** LB14 Environmental Radio-Toxins as Possible Radio-biomarkers for Diseases of the CNS. **G.I. Lykken, B. Momcilovic, J. Traudt, T.E. Ward.** U of North Dakota, Institute for Research and Development of the Sustainable Ecosystems, Croatia, U of Nebraska at Omaha and Techsource Inc.
- B262** LB15 Dibutyltin dichloride is a potent PPAR alpha antagonist. **F.A. R. Neves, D. Prakashan, S. Batista, F. Milton, M. Lacerda, M. d. F. Borin, L. Simeoni, A. Amato.** University of Brasilia, Brazil, University of Brasilia, Brazil and Federal University Fluminense, Brazil.
- B263** LB16 The Role of ZBP1 in the Neuroinflammatory Response in Glia Cell Models of Parkinson's Disease. **A. Nease, E. Malovic, N. Kondru, H. Jin, V. Anantharam, A. Kanthasamy, A. Kanthasamy.** Iowa State University.
- B264** LB17 Neuroinflammatory responses in a mouse model of acute organophosphate intoxication. **J. Calsbeek, M. Guignet, M. Dawson, D. Bruun, P. Lein.** University of California and Davis.
- B265** LB18 Gut Microbiota-Mediated Colonic Metabolism of Triclosan Contributes to its Proinflammatory Effects. **K.Z. Sanidad, J. Yang, E. Zhao, J. Zhang, H. Yang, H. Xiao, G. Zhang.** University of Massachusetts Amherst and University of California Davis.
- B266** LB19 Mitochondrial Impairment Upregulates MICOS Expression in a Human Microglial Cell Model. **A. Barges Carot, E. Malovic, H. Jin, V. Anantharam, A. Kanthasamy, A. Kanthasamy.** Iowa State University.
- B267** LB20 Effect Of Photobiomodulation On Muscle Repair And Oxidative Stress Caused By Bothrops *Jararacussu* Venom. **L.M. G. Silva, S.C. F. Freitas, L.F. Zamuner, J.C. Cogo, K. d'Angelis, S.R. Zamuner.** Universidade Nove de Julho, Brazil and Universidade Brasil, Brazil.
- B268** LB21 The Protective Effect of DAS and DADS Against Doxorubicin Induced Toxicity. **L. Taylor, J. Miles, C. Webster, A. Hudson, K. Soliman, H. Flores-Rozas, S. Darling-Reed.** Florida A&M University College of Pharmacy and Pharmaceutical Sciences.
- B269** LB22 Interaction Of Dextrin Capped Cadmium Sulfide Quantum Dots With Blood Components: Coagulation And Hemolysis Studies. **A. Rodríguez-López, P. Rodríguez-Fragoso, G. González De la Cruz, L. Rodríguez-Fragoso, J. Reyes-Esparza.** Universidad Autónoma del Estado de Morelos, Mexico, Centro de Investigación y Estudios Avanzados and I.P.N, Mexico.
- B270** LB23 Neonatal Oral Exposure to Environmental Chemicals Produces Persistent Dysbiosis Corresponding to Hepatic Epigenetic Reprogramming in Adult Mice. **J.L. Dempsey, X. Shi, H. Gu, H-J. Lehmler, J. Petrosino, C. Walker, T.J. Kavanagh, J.Y. Cui.** University of Washington, Arizona State University, University of Iowa and Baylor University.

- B271** LB24 Mice lacking membrane-localized estrogen receptor 1 (mESR1) are partially protected from reproductive pathologies resulting from developmental diethylstilbestrol (DES) exposure. **M.T. Ortega, P.S. Cooke, T.I. Medrano, A.M. Mesa, M.K. Nanjappa, P.D. Caldo, J. Mao, J.A. Kinkade, E.R. Levin, C.S. Rosenfeld.** University of Missouri, University of Florida and University of California Irvine.
- B272** LB25 Multiple Persistent Environmental Chemicals at Low Concentrations Differentially Regulates Fatty Acids/Lipids in Wild Type and PPARAa-/- Mice. **P.K. Gonnabathula, M.A. Yakubu.** Texas Southern University.
- B273** LB26 Enhancing pre-clinical in vitro cardiotoxicity assays with bioengineering strategies in a high-throughput manner. **E. Fisher, H. Ghazizadeh, K.M. Gray, N.A. Geisse.** NanoSurface Biomedical.

LATE BREAKING: DRUG DISCOVERY AND DEVELOPMENT

SUN. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM—12:00 PM

Board# Pub#

- B274** LB27 Hydralazine Improves Mitochondrial Function via SIRT1/SIRT5 Activation and Protects against Glucose Toxicity. **H.H. Mirzaei, E. Dehgan.** UT Southwestern Medical Center.
- B275** LB28 Development of G_o protein selective μ opioid receptor analgesics to limit side-effects. **J. Liu, P.J. Kenny.** Icahn School of Medicine at Mount Sinai.
- B294** LB47 Gomisin M2 ameliorates imiquimod-induced psoriasis-like skin inflammation via the inhibition of mitogen-activated protein kinase. **N. Kim, J. Kang, H. Kim, S-H. Kim.** Kyungpook National University, Republic of Korea.
- B276** LB29 Bidirectional Modulation of HIF-2 Activity through Chemical Ligands. **D. Wu, X. Su, J. Lu, S. Li, B.L. Hood, S. Vasile, N. Potluri, X. Diao, Y. Kim, S. Khorasanizadeh, F. Rastinejad.** Shandong University, People's Republic of China, Sanford Burnham Prebys Medical Discovery Institute, University of California, San Diego, Argonne National Laboratory and University of Oxford, United Kingdom.
- B277** LB30 Calcium-sensing Receptor Internalization is β -arrestin-dependent and Modulated by Allosteric Ligands. **H. Bräuner-Osborne, I. Mos, S.E. Jacobsen, S.R. Foster.** University of Copenhagen, Denmark.
- B278** LB31 Generating highly potent and efficacious antibodies to the cholecystokinin B (CCK-B) receptor by ribosome display for the treatment of neuropathic pain. **A. Kunamneni, M. Montera, K. Gott, R. Durvasula, K. Westlund.** Loyola University Medical Center and University of New Mexico.
- B279** LB32 The promise of GLUT1 inhibitors in preventing diabetes induced microvasculopathy. **A.S. Ibrahim, S. El-Tanani, H. Saleh, M. Al-Shabrawey.** Augusta University, Faculty of Pharmacy, Mansoura Univeristy, Egypt and Mansoura University, Egypt.
- B280** LB33 Designing and Synthesis of a siRNA against Angiopoietin-2 for the Treatment of Neovascularization Associated to Diabetic Retinopathy. **S.E. Cabrera Becerra, S. Villafaña.** Escuela Superior de Medicina del Instituto Politécnico Nacional, Mexico.

- B281** LB34 Oleocanthal as a Promising Natural Therapeutic Agent: the Experimental Leishmaniasis Paradigm. **E. Dotsika, K. Karampetsou, O.S. Koutsoni, A. Angelis, M. Chalambalaki, L-A. Skaltsounis.** Hellenic Pasteur Institute, Greece, National and Kapodistrian University of Athens and Department of Pharmacy, Greece.
- B282** LB35 Preclinical Evaluation Of Sirnas Against Vegfr-2 For The Treatment Of Diabetic Retinopathy. **G. Vera Juarez, S. Villafaña.** Escuela Superior de Medicina and Instituto Politécnico Nacional, Mexico.
- B283** LB36 Drug Repurposing: A Novel Approach to Discover HIV Therapies. **T. Tabassum, K.M. Frey.** Long Island University and Fairleigh Dickinson University (Pharmacy).
- B284** LB37 A Factor Xa Inhibitor Antidote (andexant alfa) is Capable of Neutralizing the Anticoagulant Effects of Unfractionated Heparin of Bovine, Ovine and Porcine Origin in a Comparable Manner as Protamine Sulfate. **F. Siddiqui, A. Tafur, E. Bontekoe, O. Iqbal, D. Hoppensteadt, W. Jeske, A. Kouta, K. Zorriasateyn, E. Ramacciotti, J. Fareed.** Loyola University Medical Center and North Shore Hospital.
- B285** LB38 Design And Synthesis Of A Sirna Against Endothelin-1 For The Treatment Of Pulmonary Arterial Hypertension In A Model Induced By Monocrotaline In Rats. **S. Villafaña, C.M. Blancas.** Escuela Superior de Medicina and Instituto Politécnico Nacional, Mexico.
- B286** LB39 Novel NOX2 inhibitor Mito-Apocynin Protects Against LPS-induced Endotoxemia Pre-Clinical Animal Model. **P. Padhi, J. Lou, H. Jin, V. Anantharam, A. Kanthasamy, A. Kanthasamy.** Iowa State University.
- B287** LB40 Novel Dopamine D4 Receptor-Selective Compounds Reveal Structure-Activity Relationships that Engender Agonist Efficacy. **T.M. Keck, R. B. Free, M.M. Day, G. Fountain, C. Cooper, A. Bonifazi, A.H. Newman, D.R. Sibley, C. Wu, C. Boateng.** Rowan University, NINDS-IRP, NIDA-IRP, Fred Wilson School of Pharmacy and High Point University.
- B288** LB41 New analogs of LASSBio-1829Cl with anti-inflammatory properties. **J. P.B. de Paiva, P.R. de Carvalho, R. H.C. N. De Freitas, C. A.M. Fraga, P.D. Fernandes.** Federal University of Rio de Janeiro, Brazil.
- B289** LB42 Anti-adipogenic Activity of *Terminalia pallida*. **K.R. Badri.** Morehouse School of Medicine.
- B290** LB43 Side Chain Substituted Indolealkyl Amides as Potent Melatonin Receptor Ligands. **J. Lipinski, V. Tsakalidou, I. Papanastasiou, A. Sakellaropoulou, M. Avgeropoulou, M. Boniakou, A.J. Jones, G.C. Glatfelter, C. Weiss, A. Tsotinis, M.L. Dubocovich.** Jacobs Sch of Med and Biomed Sci, Univ. at Buffalo, Sch of Health Sci and Ntl Kapodistrian Univ. of Athens, Greece.
- B291** LB44 Characterization of OJT007 and OJT008 as Inhibitors of Methionine Aminopeptidases from *Mycobacterium tuberculosis*. **M. Kaur, C. Onyenaka, M. Toukam Voufo, M. Rincon Nigro, D. Liang, O.A. Olaleye.** Texas Southern University.
- B292** LB45 Evaluation of Alpha-glucosidase Inhibition by Alcoholic Extract of Garcinia Kola. **P.O. Obih, J-C.A. Obih, I. Nwogu.** Xavier University of Louisiana and Southern University at New Orleans.
- B293** LB46 Antidiabetic Activity of Root Tubers of *Cyanotis tuberosa* in Streptozotocin Induced Diabetic Rats. **c. apparao, N. Vadasree, K. Peddanna, A. Rajasekhar, K.R. Badri.** Sri Venkateswara University, India and Morehouse School of Medicine.
- B295** LB48 Hispidulin attenuates atopic dermatitis-like skin inflammation features in mice. **J. Kang, S-H. Kim.** Kyungpook National University, Republic of Korea.
- B296** LB49 Study of Quality Characteristics and Functional Evaluation of *E.cottonii*. **M. Kang, B-n. Jeong, S-m. An, D-H. Kim.** Hoseo University, Republic of Korea.

LATE BREAKING: PHARMACOGENOMICS AND TRANSLATIONAL PHARMACOLOGY

MON. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL—WEST HALL B

Presentation time: 10:00 AM—12:00 PM

Board# Pub#

- B266** LB66 *CYP2C9 and CYP2C19*: Massively Parallel Characterization of the Function of Genomic Missense Variants. **L. Zhang, V. Sarangi, I. Moon, S. Devarajan, J.M. Reid, L. Wang, R. Weinsilboum.** Mayo Clinic.
- B267** LB67 Physiological Basis For Novel Drug Hydrogen Sulfide-Related Therapy Used To Treat Oxidative Stress In The Model Of Fructose-Induced Injury. **O. Zayachkivska, Y. Pavlovskiy, O. Revenko, A. Yashchenko.** Lviv National Medical University, Ukraine.
- B268** LB68 Attenuation of Ovalbumin-induced Airway Inflammation by Compound of *Portulaca oleracea L.* Extract through Regulating Mast Cell-Mediated Inflammatory Responses. **S. Lee.** Korea Research Institute of Bioscience and Biotechnology (KRIBB), Republic of Korea.
- B269** LB69 Role of Neuro-immune Interactions in a Cigarette Smoke-induced Chronic Airway Inflammation Mouse Model. **K. Csekó, I. Szitter, Z. Hajna, K. Elekes, Á. Kemény, L. Kereskai, J.P. Quinn, K. Sándor, E. Pintér, Z. Helyes.** University of Pécs, Medical School, Hungary, Szentágothai Research Centre, University of Pécs, Hungary, Liverpool University, United Kingdom and PharmInVivo Ltd, Hungary.
- B270** LB70 Baclofen Does Not Modify the Gastric and Colonic Transits in Mice while It Inhibits Contractions of the Isolated Guinea Pig Ileum. **H.A. Murad.** Department of Pharmacology, Faculty of Medicine, Rabigh, King Abdulaziz University, Saudi Arabia, Department of Pharmacology, Faculty of Medicine and Ain Shams University, Egypt.
- B271** LB71 Protective Role of the Somatostatin Receptor Subtype 4 in the Indomethacin-Induced Gastrointestinal Mucosal Injury Model. **K. Csekó, V. Kormos, Á. Horváth, M. Sudalina, N. Iarushkina, D. Zelena, L. Filaretova, Z. Helyes.** University of Pécs, Medical School, Hungary, Szentágothai Research Centre, University of Pécs, Hungary, Pavlov Institute of Physiology, Russian Academy of Sciences, Russian Federation, Hungarian Academy of Sciences, Hungary and PharmInVivo Ltd, Hungary.

LATE BREAKING: CENTRAL NERVOUS SYSTEM PHARMACOLOGY

MON. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM–12:00 PM

Board# Pub#

- B272** LB72 Biphenylindanone A, a prototypical mGlu₂ positive allosteric modulator, alleviates dyskinesia and psychosis in the parkinsonian marmoset. **A. Hamadjida, S. Nuara, J. Gourdon, P. Huot.** McGill University, Canada.
- B273** LB73 Allosteric and orthosteric activation of mGlu₂ receptors to alleviate dyskinesia and psychosis in the parkinsonian marmoset. **A. Hamadjida, S. Nuara, J. Gourdon, P. Huot.** McGill University, Canada.
- B274** LB74 Characterizing mu Opioid Receptor Splice Variants Using Gene Targeting Rat Models Generated by Easi-CRISPR. **G. Rossi, J. Xu, V.P. Le Rouzic, G.W. Pasternak, M. Yoshiki, T. Mashimo3, T. Saunders, C.B. Gurumurthy, Y-X. Pan.** Long Island University, Memorial Sloan-Kettering Cancer Center, Osaka University, Japan, University of Michigan and Univ Nebraska Medical Center.
- B275** LB75 Antidepressant Effects of Crocin-1 from Saffron in Mice with Chronic Unpredictable Mild Stress-Induced Depression. **P. Wang, S. Lin, Z. Chen, Y. Jiang, J. Jiang, L. Liu.** Zhejiang University of Technology, People's Republic of China.
- B276** LB76 Cholesterol sulfate alters astrocyte metabolism and offers some neuroprotective effects. **J.K. Prah, S. Yang.** University of North Texas Health Science Center.
- B277** LB77 Electroacupuncture Inhibits Opioid-induced Hyperalgesia in a Mouse Model of Thermal Nociception. **M. T. Lee, Y-H. Chen, L-C. Chiou.** College of Medicine, National Taiwan University, Taiwan and China Medical University, Taiwan.
- B278** LB78 A Novel Drug Target for Migraine: The GABA_A Receptor α 6 Subtype in Trigeminal Ganglia. **L-C. Chiou, H-R. Tzeng, P-C. Fan, W. Sieghart, M. Ernst, D.E. Knutson, J. Cook.** College of Medicine, National Taiwan University, Taiwan, Medical University Vienna, Austria and University of Wisconsin-Milwaukee.
- B279** LB79 Identification of a Critical Amino Acid Position Conferring G-protein Bias to Delta Opioid Receptor Peptides. **R. Cassell, B. Zervas, B. Cummins, D. Trader, R. van Rijn.** Purdue University.
- B280** LB80 Reversal of the Development of Antinociceptive Effects to Chronic Morphine in Mice by Fecal Microbiota Transplantation (FMT). **J.M. Kang, W.L. Dewey, H.I. Akbarali.** Virginia Commonwealth University.
- B281** LB81 Commonly Abused Drugs Differentially Increase the Frequency and Amplitude of Accumbal Transient Dopamine Release Events. **T. Everett, R. Leman, H. Lopez-Beltran, O. Chaman, D. Isaacs, E.B. Oleson.** University of Colorado Denver.
- B282** LB82 Anti-edematous effect of neurolysin in ischemic stroke. **S. Nozohouri, S. Jayaraman, B. Vaidya, V. Karamyan, T. Abbruscato.** Texas Tech university health science center.
- B283** LB83 Novel Sigma Receptor Ligand Enhances Memory and Mitigates Microglia Proliferation. **S. Bhandari, S. Farr, A. Silwal, A. Crider, A. House, D. Umbaugh, K. Sandoval, K. Witt.** Southern Illinois University Edwardsville and St. Louis University.
- B284** LB84 Role of Nicotine Mediated Neuroprotection in MPTP-induced Parkinson's disease. **E-S.A. Arafa, M. Buabeid.** Ajman University, United Arab Emirates.
- B285** LB85 Effect of Order of Fixed Ratio Presentation on Demand for Self-administered Remifentanyl in Rats. **D.R. Maguire, V. Minervini, C.P. France.** UTHSCSA.

- B286** LB86 Study of pyrrolidine dithiocarbamate on experimental models of Alzheimer's disease in rats. **P. Sopory, R. KH.** All India Institute of Medical Sciences and New Delhi, India.
- B287** LB87 Characterization Of Expression Pattern Of Somatostatin 4 Receptor In The Mouse Brain. **K. Pohóczyk, A. Kecskés, R. Bakai, V. Kormos, N. Szentes, É. Szóke, K. Bölcskei, I. Udvarácz, I. Ábrahám, Z. Varga, B. Gaszner, Z. Helyes.** University of Pécs Faculty of Pharmacy, Hungary, University of Pécs Medical School, Hungary, University of Pécs Szentágotthai Research Centre, Hungary and Semmelweis University Faculty of Medicine, Hungary.
- B288** LB88 Ultra-sensitive detection of pathological α -synuclein in human tissues and biofluids using the RT-QuIC Assay: Relevance to development of circulating and peripheral biomarkers for diagnosing α -synucleinopathies and other protein misfolding diseases. **S. Manne, N. Kondru, H. Jin, V. Anantharam, M. Lewis, X. Huang, T. Beach, A. Kanthasamy, A. Kanthasamy.** Iowa State University, Penn State Milton S. Hershey Medical Center and Banner Sun Health Research Institute.
- B289** LB89 Evidence that Regulator of G-Protein Signaling 5 Protein Modulates Emotional Behaviors in Adult Mice. **S. Chrissobolis, T. Guisinger, H. Norman, S. Seeley, B. Rorabaugh, M. D'Souza.** Ohio Northern University.
- B290** LB90 Role of Cortical Catecholamines in the Paradoxical Action of Psychostimulants. **S. Harris, S. Green.** University of Florida.

LATE BREAKING: CANCER PHARMACOLOGY

MON. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM–12:00 PM

Board# Pub#

- B291** LB91 Chemotherapeutic Potential of Novel Selenium (Se) Analog of Histone Deacetylase (HDAC) Inhibitor, Suberoylanilide Hydroxamic Acid (SAHA) in Experimental Colorectal Cancer. **N. Kaushal, P. Ghanghas, D. Desai, K. Raza, A. Bhalla.** Panjab University, India, The Pennsylvania State University and Central University of Rajasthan, India.
- B292** LB92 Anticancer mechanisms determination of N-(o-carboxybenzoyl)-derived compounds of L-amino acids serie on MDA-MB-231 cell line of TNBC. **D. Cruz Martinez, T. Mancilla Percino, E. Mera Jiménez.** Escuela Superior de Medicina, IPN, Mexico, Centro de Investigación y Estudios Avanzados and IPN, Mexico.
- B293** LB93 Nanoformulation of bisphosphonates with a cationic peptide improves its activity against breast cancer cells. **U.A. Fahmy, O.A. Ahmed, N.A. Alhakamy.** King Abdulaziz University- faculty of Pharmacy, Saudi Arabia.
- B294** LB94 Mechanism of Arsenic Trioxide Inhibition of Cell Growth and Induction of Apoptosis in Triple Negative MDA-MB-231 Breast Cancer Cell Line. **S. Alzuwaidi, R. Khalil.** Florida A&M University.
- B295** LB95 Protein Disulfide Isomerase: A novel potential therapeutic opportunity for melanoma. **L.R. Lopes, S. Beyerstedt, M. Franco, T. Oliveira, D.K. Alves-Fernandes, S. Maria-Engler, J. Machado-Neto.** University of São Paulo, Brazil.
- B296** LB96 Impact of diet-derived polyphenol EGCG on neurotensin response upon HL-60 promyelocytic leukemia cells acquisition of a macrophage-like phenotype. **T. Dao, B. Annabi.** Université du Québec a Montreal, Canada.

- B297** LB97 Low-Dose Aspirin Down-regulates the Expression of Transcription Factors and Anti-apoptotic Genes in Human Cervical Cancer Cells. **H. Rasheed, I.S. Channa, A.T. Alvi, A. Abbasi.** University of Karachi, Pakistan and AmpliTech Inc.
- B298** LB98 Development of glyco-conjugated chlorin e6 for photodynamic therapy. **S. Yano, H. Kataoka, H. Nomoto, T. Osaki.** Nara Women's University, Japan, Nagoya City University, Japan, Osaka Prefecture University, Japan and Tottori University, Japan.
- B299** LB99 Cellular Binding Kinetics of Altertoxin II: A Fungal Metabolite with Highly Selective Activity Against Ewing Sarcoma. **A.J. Robles, P.J. Houghton.** UT Health San Antonio.
- B300** LB100 Anticancer effects of Qizhen Capsule in human colorectal cancer cells *in vitro* and *in vivo*. **D. Guo, C. Guo, Y. Wang, K. Wu, L. Fang, C. Guo, X. Wang.** Zhejiang Chinese Medical University, People's Republic of China.
- B272** LB380 Effects of Losartan on Oxidative Stress, DNA Damage, and Metabolic Parameters in Whole Blood and Liver of Rhesus Monkeys (*Macaca mulatta*). **J.G. Lozada-Delgado, M. del R. Castro, S. Ayala-Peña.** University of Puerto Rico-Medical Science Campus.
- B273** LB381 α 1D-Adrenoceptor Mediated Components to Nerve-Evoked Contractions in Mouse Vas Deferens. **J.R. Docherty.** Royal College Surgeons Ireland, Ireland.
- B274** LB382 Novel Kinase Inhibitors Reduce Hypoxia-Induced Apoptosis in Cardiomyocytes. **C.S. Moyer, S. Engman, B. Butel, F. Keomanivang, E.M. Wauson.** Des Moines University.
- B275** LB383 Chondroitin Sulfate Pharmacological Activity from Four Different Sources in Human Osteoarthritic Cartilage. **E. Montell, J-P. Pelletier, J. Martel-Pelletier.** Bioibérica, S.A.U., Spain and University of Montreal Hospital Research Centre (CRCHUM), Canada.
- B276** LB384 *In vitro* determination of the CB1 efficacy of illicit synthetic cannabinoids. **S. Sachdev, K. Vemuri, S.D. Banister, M. Longworth, M. Kassiou, M. Santiago, A. Makriyannis, M. Connor.** Macquarie University, Australia, Northeastern University, The University of Sydney, Australia and La Trobe University, Australia.
- B277** LB385 ZnR/GPR39 mediated human salivary secretion. **Y-J. Kim, Y. Jo, S-H. Jo, H-K. Park, S-Y. Choi.** Department of Physiology, Dental Research Institute, BK21 PLUS Dental Life Science, Seoul National University School of Dentistry, Republic of Korea, Department of Physiology, Institute of Bioscience and Biotechnology, BK21 plus Graduate Program, Kangwon National University College of Medicine, Republic of Korea, Department of Oral Medicine and Oral Diagnosis, Dental Research Institute and Seoul National University School of Dentistry, Republic of Korea.
- B278** LB386 Role Of Mhc-Class II Activation On Staphylococcal Enterotoxins Type A (Sea) And B (Seb)- Induced Neutrophil Dysfunction. **I.A. de Souza, A.P. Ferreira-Duarte, V.P. Santos-Ramos, A.S. Pinheiro-Torres, E. Antunes.** Faculty of Medicine of Jundiai, Brazil, Faculty of Medicine of Jundiaí, Brazil and State University of Campinas, Brazil.
- B279** LB387 Effect Of Interferon- γ On The Neutrophil Functional Properties. **A. P.F. Duarte, I.A. de Souza, V.S. Ramos, A.S. Pinheiro Torres, E. Antunes.** Faculty of Medicine of Jundiai, Brazil and University of Campinas, Brazil.
- B280** LB388 The effect of Polydatin in dry eye disease *in vivo* and *in vitro*. **B. Park, T. G. Lee, S-W. Hyun, K. Jo, I. S. Lee, J. S. Kim, C-S. Kim.** Korea Institute of Oriental Medicine, Republic of Korea.
- B281** LB389 Anti-inflammatory activity of *Sageretia thea* in LPS-stimulated RAW264.7 cells. **G. H. Park, H. J. Eo, J. B. Jeong.** National Institute of Forest Science, Republic of Korea and Andong National University, Republic of Korea.
- B282** LB390 Osteogenic Differentiation of Normotensive Rats Depends on the β -adrenergic Receptor. **A.E. A. Barreto, V.G. B. Brito, B.B. Ballassoni, S.T. Frasnelli, M.S. Patrocínio, C.F. Santos, V.S. Lara, S.H. P. de Oliveira.** São Paulo State University, Brazil and University of São Paulo, Brazil.
- B283** LB391 Interaction of Activator of G-protein Signaling 3 (AGS3) and the signaling protein Dishevelled: Implications for the regulated distribution AGS3 within the cell and its functional diversity. **A. Vural, S. Lanier.** Wayne State University.
- B284** LB392 Cannabinoid receptor antagonists and G protein subtypes. **K. Eldeeb, S. Leone-Kabler, A.C. Howlett.** Campbell University, Wake Forest University Health Sciences and AlAzhar Faculty of Medicine, Egypt.

LATE BREAKING: PHARMACOLOGY EDUCATION

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM–12:00 PM

Board# Pub#

- B267** LB375 Optimizing Student Use of Quiz Questions as a Learning Tool. **D. Peffley, M. Di Rito, S. Bickett, J.M. Lee.** Philadelphia College of Osteopathic Medicine Georgia.
- B268** LB376 Examining The Pre-Post Matriculation Academic Metrics As Correlates Of Osteopathic Medical Student Clinical Performance. **K. Eldeeb, G. Dogbey.** Campbell University and AlAzhar Faculty of Medicine, Egypt.

LATE BREAKING: DRUG METABOLISM AND DISPOSITION

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM–12:00 PM

Board# Pub#

- B269** LB377 Cannabinoid Inhibition of Carboxylesterase 1 (CES1). **Y. Qian, J.S. Markowitz.** University Of Florida College Of Pharmacy.
- B270** LB378 Stability Studies of Rooperol and Analogues by *In Vitro* Metabolism with HPLC/MS Detection. **A.L. Bohanon, S.M. Kerwin.** Texas State University.

LATE BREAKING: CELLULAR AND MOLECULAR PHARMACOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM–12:00 PM

Board# Pub#

- B271** LB379 A New Series of G_s- and β -Arrestin-biased β_2 -Adrenoceptor Agonists. **A.Y-H. Woo, X. Ge, L. Pan, G. Xing, Y. Mo, R. Xing, X. Li, Y. Zhang, I.W. Wainer, M. Cheng, R-P. Xiao.** Peking University, People's Republic of China, Shenyang Pharmaceutical University, People's Republic of China, Hebei Medical University, People's Republic of China, National Institute on Aging, NIH, Mitchell Woods Pharmaceuticals and LLC.

- B285** LB393 Mast Cell Supernatant Inhibit Bone Formation Markers Gene Expression. **S.C.T. Frasnelli, J.V. Jordão, M. C. Linjardi, B.B. Balassoni, V. G.B. Brito, A.E. A. Barreto, V.S. Lara, C.F. Santos, S.H. Oliveira.** São Paulo State University (UNESP), School of Dentistry, Araçatuba, SP, Brazi, Brazil, São Paulo State University (UNESP), School of Dentistry, Araçatuba, SP, Brazi, Brazil, Dept. Basic Science, São Paulo State University (UNESP), School of Dentistry, Araçatuba, SP, Brazi, Brazil, Bauru School of Dentistry, University of São Paulo (USP), SP and Brazil, Brazil.
- B286** LB394 Interaction between Calmodulin and Lysosomal Vesicle-Associated Membrane Protein 8. **A. Yao, C. Bloomfield, Q-K. Tran.** Des Moines University and Des Moines Univ.
- B287** LB395 *Ganoderma lucidum* polysaccharides induce cytotoxicity in colorectal cancer cells through inducing autophagosome accumulation and inhibiting autophagic flux. **H. Pan, Y. wang, Y. Wang, M. Li, Z. Li, J. Xu, X. Wang.** Zhejiang Chinese Medical University, People's Republic of China and Zhejiang Shouxiangu Institute of Rare Medicine Plant, People's Republic of China.
- B288** LB396 C/EBP homologous protein deficiency inhibits statin-induced myotoxicity. **C-H. Woo, J. H. Lim.** Yeungnam University College of Medicine, Republic of Korea and Ewha Womans University School of Medicine, Republic of Korea.
- B289** LB397 Inhibition of Autophagy in Cardiomyocytes by Calmodulin Antagonists. **V. Lopez, M. Hayden, J. Giles, F. Keomanivong, E.M. Wauson, Q-K. Tran.** Des Moines University.
- B296** LB404 Regulator of G-Protein Signaling 5 Protein Modulates Blood Pressure and Cerebral Vascular Superoxide Levels in Aged Mice. **S. Chrissobolis, R. Waldschmidt, T. Guisinger, S. Seeley, B. Rorabaugh, A. Luu, M. D'Souza.** Ohio Northern University.
- B297** LB405 Deletion of T1R3 reduces atherosclerosis and liver triglyceride accumulation in ApoE^{-/-} mice fed a high-fat diet. **S. Shojaat, S. Engman, J. Hofferber, F. Keomanivong, E.M. Wauson.** Des Moines University.
- B298** LB406 Coagulation and Circulating Heparin Profile in Patients with End-Stage Renal Disease Undergoing Maintenance Hemodialysis. **E. Bontekoe, N. Baig, A. Grewal, V. Bansal, F. Siddiqui, O. Iqbal, D. Hoppensteadt, J. Fareed.** Loyola University Medical Center.
- B299** LB407 Effect of PDE9 inhibitor BAY 73-6691 in the contractile response of cavernosal and detrusor smooth muscle of sickle cell disease mice. **C.F. Franco-Penteado, A.G. Mora, S. Janussi, T. Vanalli, F.F. Costa, F.H. Silva, M.A. Claudino.** UNICAMP, Brazil and São Francisco University Medical School, Brazil.
- B300** LB408 Sporoderm-broken spores of *Ganoderma lucidum* water extract (BSGLWE) inhibits high-fat diet induced obesity through regulating gut microbiota in mice. **C. Guo, T. Sang, D. Guo, M. Li, Z. Li, K. Wu, J. Xu, K. Na, X. Wang.** Zhejiang Chinese Medical University, People's Republic of China and Zhejiang Shouxiangu Institute of Rare Medicine Plant, People's Republic of China.

LATE BREAKING:**CARDIOVASCULAR PHARMACOLOGY**

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM—12:00 PMBoard# Pub#

- B290** LB398 Activation of autophagy protects against myocardial ischemic reperfusion injury by inhibition of NLRP3 inflammasome-mediated pyroptosis and inflammatory responses in diabetic rats. **S. Wang, D. Zhang, X. Ye, Y. He, Y. Cai, Z. Xia.** Guangdong Cardiovascular Institute & Guangdong General Hospital, Guangdong Academy of Medical Sciences, People's Republic of China, Guangdong General Hospital, Guangdong Academy of Medical Sciences, People's Republic of China and The University of Hong Kong, People's Republic of China.
- B291** LB399 Formononetin attenuates isoproterenol-induced cardiac toxicity in rats owing to its antioxidant, anti-inflammatory and anti-apoptotic activity. **K. Suchal, D. S. Arya, S. Singh.** All India Institute of Medical Sciences, India and NDMC Medical college and Hindurao Hospital, India.
- B292** LB400 Aging influences cerebrovascular function via BK channel in a sex-specific manner. **M. Pabbidi, T. Pareek, J. Reed, S. Sontakke.** UMMC.
- B293** LB401 Nitric Oxide-Mediated Nanomolar Vasodilator Potencies of Glycosylated Anthocyanins do not Correlate with Redox Potential. **J. P. Garcia-Huidobro, C. Calfio, M. V. Donoso, F. Donoso, C. Silva.** Universidad de Santiago de Chile, Chile.
- B294** LB402 Effect of bile acids feeding on atherosclerosis in ApoE^{-/-} mice. **G. Escher, L. Zurkinden, B. Vogt.** Inselspital, Switzerland.
- B295** LB403 Statins Reduce Cellular Respiration and Induce De-differentiation of Myofibroblasts. **G. Ross, L. Emelyanova, F. Rizvi, A. Jahangir.** Advocate Aurora HealthCare and Aurora HealthCare.

LATE BREAKING: OTHER PHARMACOLOGY II

MON. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM—12:00 PMBoard# Pub#

- B301** L659 What Is Known About Users Of Medical Cannabis Against Chronic Musculoskeletal Pain? A Scoping Review Of The Literature. **D. Furrer Soliz, C.E. Dionne, M. Marcotte, N. Jauvin, R. Bélanger, M. Ware, G. Folders-Busque, M. Aubin, P. Pluye, E. Kröger.** Centre d'excellence sur le vieillissement de Québec (CEVQ), CIUSSS de la Capitale-Nationale, Canada, Laval University, Canada and McGill University, Canada.

LATE BREAKING: OTHER PHARMACOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

Presentation time: 10:00 AM—12:00 PMBoard# Pub#

- B301** LB409 Re-evaluation of Artemether-Lumefantrine Combination Effectiveness in Malaria Treatment in Elele. **L.C. Chukwu, P.U. Agbasi, P.C. Unekwe.** Chukwuemeka Odumegwu Ojukwu University, Nigeria, Federal University of Technology Owerri Nigeria, Nigeria and Nnamdi Azikiwe University Nigeria, Nigeria.
- B302** LB410 Endothelin-1 Induced Fibronectin Expression via c-Jun. **S.J. Hernandez.** California State University and Northridge.

Physiology

TEACHING OF PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E539** LB411 Use of Recordings of Real Patients to Improve Clinical Integration of a First Year Medical Student Pulmonary Function Testing Laboratory. **R.P. Sullivan, M. Zantah, M. Patel, T. Fanrak, J. Garfield.** Lewis Katz School of Medicine at Temple University and Temple University Hospital.
- E540** LB412 Physiology Understanding (PhUn) Week at Texas A&M University-Kingsville: a Retrospective Study. **H. Lopez, M.E. Velez-Hernandez.** Texas A&M University Kingsville.

COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E541** LB413 PO₂ Profiles in the Retina of the Hemoglobin-less Icefishes. **H. Lauridsen, T. Desvignes, C. Damsgaard, A.M. Funder, J.S. Thomsen, J.H. Postlethwait, P.R. Møller, H. W. I. Detrich.** Aarhus University, Denmark, University of Oregon, University of British Columbia, Canada, University of Copenhagen, Denmark and Northeastern University.
- E542** LB414 Hemodynamic Responses to Ventricular Pacing in the Fish Heart Depend on Repolarization Duration at the Paced Regions. **J.E. Azarov, V. Vityazev, M. Vaykshnorayte.** Institute of Physiology, Komi Science Center, Ural Branch of Russian Academy of Sciences, Russian Federation and Pitirim Sorokin Syktyvkar State University, Russian Federation.
- E543** LB415 Susceptibility of erythrocytes from different sources to xenobiotics-induced lysis. **R. Crupi, R. Morabito, A. Remigante, E. Gugliandolo, D. Britti, S. Cuzzocrea, A. Marino.** University of Messina, Italy and Università della Magna Grecia, Italy.
- E544** LB416 Differences in plasma membrane integrity may explain collapse of cardiac function in Antarctic notothenioids varying in thermal tolerance limits. **E.R. Evans, A.M. Farnoud, E.L. Crockett.** Ohio University.

TRANSLATIONAL PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E545** LB417 Phoca vitulina swallowing physiology using videofluoroscopy: Creating a comparative rehabilitation model. **S.A. Skoretz, M. Haulena, L. Akhurst, E. Johnson, C. Dawson.** University of British Columbia, Canada, University of Alberta, Canada, Vancouver Aquarium, Canada and University Hospital Birmingham NHS Foundation Trust, United Kingdom.
- E546** LB418 Mesenchymal Stem Cell-Based Delivery of Gene-Silencing Products: Toward a Biological Therapy. **E. Nemeth, C. Gordon, D. Devine, N. Loizos, P.R. Brink.** Stony Brook University, Mesoblast and Ltd.

- E547** LB419 Early prognostic capacity of serum lactate for severe postpartum hemorrhage (SPPH). **V. B. Kway, R.A. Castillo Reyther., L.A. Domínguez Salgado, R.E. Tanguma, Ú.F. Medina Moreno, A.A. Gordillo Moscoso.** Universidad Autónoma de San Luis Potosi, Mexico and Hospital Central “Dr. Ignacio Morones Prieto”, Mexico.
- E548** LB420 Biochemical verification of smoking cessation and the role of endothelin-1: Impact on cardiovascular disease risk. **M.S. Tingen, S.J. Sojourner, M.A. Tucker, C.C. Derella, R.A. Harris.** Augusta University.
- E549** LB421 The molecular clock is required for gastric bypass-induced metabolic effects. **R. Ghaddar, Y. Ye, Y. Song, J. Cedernaes, D. Levine, J.T. Bass, M. Mokadem.** University of Texas at Austin, University of Iowa and Northwestern University.
- E550** LB422 Transdermal Detection of Hydrogen Sulfide in Humans. **E.F. Wiest, J. Brandenburg, R. Clark, D. Friedrichsen, G. Silaski, F. Qeadan, T. Howdieshell, R. Shekarriz, N. Kanagy.** University of New Mexico, Exhalix and LLC.
- E551** LB423 Bronchoalveolar Lavage Cytokine Profiles Reflect Involvement in Pulmonary Recovery After Pulmonary Hypertension in a Pig Model of Endotoxin-Induced Acute Lung Injury. **W.J. Sherman, L-A.M. Murata, J.W. Blythe, B.C. Lee, W.M. Ichimura, C.A. Hernandez, D.H. Ho, C.F. Uyehara.** Tripler Army Medical Center.

SEX DIFFERENCES IN PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E552** LB424 The Effect of Cardiorespiratory Fitness on Lipoprotein Particles in Midlife Women. **C. Serviente, M. Chalvin, S. Witkowski.** Pennsylvania State University, University of Massachusetts Amherst and Smith College.
- E553** LB425 Menopausal Stage Influences Lipoprotein Subclass Profile In Habitually Active Women. **S. Witkowski, C. Serviente, M. Chalvin.** Smith College, Pennsylvania State University and University of Massachusetts.
- E554** LB426 The modified method of preparation of teaser stallion for the detection of the estrus in mare in horse herd farming. **P. Anipchenko, E. Korochkina, M. Kramskaya, A. Stekol'nikov, E. Nikitkina, N. Bazhenova, G. Nikitin.** SPb State Academy of Veterinary Medicine, Russian Federation and Russian Research Institute of Farm Animal Genetics and Breeding—Branch of the L.K. Ernst Federal Science Center for Animal Husbandry, Russian Federation.
- E555** LB427 Sex Differences in Senescence-Related Gene Expression in a Rat Model of Bronchopulmonary Dysplasia. **S.C. Wanek, R.K. Braun, M.W. Eldridge.** University of Wisconsin Madison.
- E556** LB428 Estrogen Promotes Resolution of Pneumonia via CD4⁺Foxp3⁺ Tregs. **Y. Xiong, T. Palmer, L. Wang, Q. Zhong, A. Benner, R. Damico, F.R. D'Alessio.** Division of Pulmonary and Critical Care Medicine, Department of Medicine and Johns Hopkins University.
- E557** LB429 Conspecific Chemical Cues Modulate Reproductive Physiology and Behavior in a Live-Bearing Fish. **M.L. Bristow, C. Gabor, M. Huertas.** Texas State University.

BIOMEDICAL ENGINEERING

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL—WEST HALL B

- E558** LB430 High-precision and scalable fabrication of biomimetic culture environments for enhancing adherent mammalian cell and tissue engineering. **H. Ghazizadeh, E. Fisher, K.M. Gray, N.A. Geisse.** NanoSurface Biomedical.

ENVIRONMENTAL AND EXERCISE PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL—WEST HALL B

- E559** LB431 Chronic Aerobic Exercise Training Reduces Cerebrovascular Reactivity to a Breath Hold Stimulus in Middle-aged and Older Adults. **L.E. DuBose, C. Wharff, P. Schmid, M. Muellerleile, G. Sigurdsson, L. Reist, G.L. Pierce*, M.W. Voss*.** University of Iowa.
- E560** LB432 Examining the effects of housing temperature on mitochondrial adaptations to exercise and the browning of white adipose tissue. **G.L. McKie, K.D. Medak, C.M. Knuth, L.K. Townsend, H. Shamshoum, W.T. Peppler, D.C. Wright.** University of Guelph, Canada, Sunnybrook Research Institute, University of Toronto, Canada and University of Toronto, Canada.
- E561** LB433 Muscle-derived SDF-1 α /CXCL12 modulates endothelial cell proliferation but is not required for exercise training-induced angiogenesis. **M. Okutsu, M. Yamada, C. Hokazono, K. Tokizawa, S. Marui, M. Iwata, V. A. Lira, K. Suzuki, S. Miura, K. Nagashima.** Nagoya City University, Japan, National Institute of Occupational Safety and Health, Japan, Waseda University, Japan, Nihon Fukushi University, Japan, University of Iowa and University of Shizuoka, Japan.
- E562** LB434 Exercise And Sex Impact Hepatic Bile Acid Metabolism And Fecal Excretion. **E. Franczak, A. Maurer, J. Thyfault.** Rockhurst University, KUMC and Kansas City VA Medical Center.
- E563** LB435 Circulating Mitochondrial DNA Levels in Collegiate Football Players: A Pilot Study. **J. Sayoc, K. Kawata, J. Shin, M. Rath, S-G. Hong, S-Y. Choi, R. Tierney, J-Y. Park.** Temple University and Indiana University.
- E564** LB436 Total Expired Non-Metabolic VCO₂ and VCO₂ Recovery Kinetics as Predictors of Performance Fatigability During Exercise. **L.C. Wooten, M.I. Aldhahi, R.E. Keyser.** George Mason University and Princess Nora Bint Abdulrahman University, Saudi Arabia.
- E565** LB437 Inflammatory and Endothelial Adaptations to Aerobic and Strength Training in Hypertensive Middle-Aged Individuals: a Controlled Randomized Clinical Trial. **F. Boeno, T.R. Ramis, S.R. Munhoz, A. Reischak-Oliveira.** Federal University of Rio Grande do Sul, Brazil.
- E566** LB438 Muscle contractile activity-mediated regulation of antioxidant enzymes in oxidative muscle requires p62/SQSTM1 phosphorylation-induced Nrf2 activation. **M. Yamada, M. Iwata, E. Warabi, H. Oishi, V. A. Lira, M. Okutsu.** Nagoya City University, Japan, Nihon Fukushi University, Japan, Tsukuba University, Japan and University of Iowa.
- E567** LB439 The effect of whole body cooling on cognitive processing. **N. Sawai, F. Kobayashi, H. Kubo, H. Nakata, M. Shibasaki.** Nara Women's University, Japan.
- E568** LB440 Kinetics of Reactive Oxygen Species and Total Antioxidant Capacity during Moderate Treadmill Running after 8 Weeks of Endurance Training. **A. Yoon, T. Hughley, R.H. Williams.** Albany State University.

- E569** LB441 Persistence of Exercise Training Effect on Amyloid Pathology. **J.E. Lawson, K.C. Dobbs, J.L. Jensen, E.A. Phelps, B.F. Timson, S.D. Zimmerman.** Missouri State University.
- E570** LB442 ECG Assessment of Cardiac Function Before, During, and After a 1km Swim. **T. Wilson, S.R. Bergen, B.D. Johnson, M.F. Harrison.** Winona State University and Mayo Clinic.
- E571** LB443 Acute Phase Response to Exertional Heat Stroke in Mice. **J.D. Iwaniec, G.D. Robinson, C.D. Garcia, K.D. Murray, O.D. Laitano, T.D. Clanton.** University of Florida.
- E572** LB444 Deficits in Motor Function After Repeated Exertional Heat Stroke Exposure in Female Mice. **J.M. Alzahrani, K.O. Murray, L. Sheikh, C.K. Garcia, G.P. Robinson, O. Laitano, T.L. Clanton.** University of Florida.
- E573** LB445 Effect of All-extremity High-Intensity Interval Training vs. Moderate-Intensity Continuous Training on Arterial Stiffness and Wave Reflection in Adults with Type 2 Diabetes. **J. Lim, C-L. Hwang, H-K. Kim, J-K. Yoo, E.M. Handberg, M-H. Hwang, W.W. Nichols, J.W. Petersen, B.J. Holmer, S.S. Lapierre, Y. Sakarya, J.W. Leey Casella, K.W. Cusi, D.D. Christou.** University of Florida and Incheon National University, Republic of Korea.
- E574** LB446 Peripheral Arterial Adaptations to All-Extremity Aerobic Exercise Training in Type 2 Diabetes. **Y. Sakarya, C-L. Hwang, J. Lim, H-K. Kim, J-K. Yoo, E. M. Handberg, M-H. Hwang, J. W. Petersen, B. J. Holmer, S. S. Lapierre, D. D. Christou.** University of Florida and Incheon National University, Republic of Korea.
- E575** LB447 The Effect of Leg Fidgeting During Sitting on Glycemic Control in Obese Subjects—A Pilot Study. **R.J. Pettit-Mee, S.T. Ready, Y. Liu, J. Padilla, J.A. Kanaley.** University of Missouri.
- E576** LB448 Perception of Weight Status and BMI Based on Self-Reported Weight and Height Among Undergraduate Students. **D. Khanna.** Arkansas Tech University.

MICROCIRCULATION

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL—WEST HALL B

- E577** LB449 Using Bioprinting to Tissue Engineer Microvascularized Constructs for Skeletal Muscle Repair. **R. Bour, S. Presnell, B. Shepherd, G. Christ, S. Peirce.** University of Virginia and Organovo.
- E578** LB450 Tumor microenvironment regulates endothelial cell transformation via modulation of TRPV4 channels. **B.D. Guarino, R.K. Adapala, A.K. Kanugula, N.M. Lenkey, S. Paruchuri, C.K. Thodeti.** Northeast Ohio Medical University and University of Akron.
- E579** LB451 Murine Live Bladder Tissue Model to Study the Microvasculature Properties and Function In Situ. **M. de Sousa Loreto Aresta Branco, K.D. Taylor, J.L. Bowen, C.M. Peppiatt-Wildman, S.S. Wildman.** University of Kent and University of Greenwich, United Kingdom, University of Kent, United Kingdom and Cardiff University, United Kingdom.
- E580** LB452 Microvascular Blood Flow Response to Hyperinsulinemia in Type 2 Diabetic Rats. **H. Shogan, G.M. Russell McEvoy, G.M. Fraser.** Memorial University of Newfoundland, Canada.
- E581** LB453 Adverse Effects of Chemotherapy on Human Microvascular Function. **L.E. Norwood Toro, S.N. Hader, A. Kong, H. Rui, A.M. Beyer.** Medical College of Wisconsin.

- E582** LB454 Cerebral Artery Reactivity in Adult APOE3 and APOE4 Mice. **R.G. Patel, B. Hoxha, E. Ion, J. Vallejo-Elias, C. Jones, J. Powell, T. Virden III, J. Struthers, T. B. Jones, D.M. Eckman.** Midwestern University.
- E583** LB455 Towards a Multi-Scale Model of Ventilation-Perfusion Matching. **A.D. Marquis, D.A. Beard, D.J. Pinsky.** University of Michigan.
- E584** LB456 Age-Related Changes in Skeletal Muscle and Small Mesenteric Arterial Function in Spontaneously Hypertensive Rats. **T.J. Jurrissen, J.A. Castorena-Gonzalez, F.I. Ramirez-Perez, M.A. Hill, G.A. Meininger, J. Padilla, L.A. Martinez-Lemus.** University of Missouri.
- E585** LB457 Differential impact of severe familial hypercholesterolemia on regional skeletal muscle and organ blood flows during exercise: effects of PDE5 inhibition. **C.G. Aragon, V.J. de Beer, D.L. Tharp, D.K. Bowles, M. H. Laughlin, D. Merkus, D.J. Duncker, S.B. Bender.** University of Missouri, Harry S Truman Memorial VA Hospital, Erasmus MC and Thoraxcentre, Netherlands.
- E586** LB458 A Bolus Dose of PTH 1-84 Elicited Sustained Elevations in Intramedullary Pressure in Rat Femora. **S. NOH.** University of Texas at Arlington.

CARDIOVASCULAR PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E587** LB459 Reduced Basal Heart Rate Variability in a Calcineurin A β Deficient Mouse. **J.E. Bonin, C. Rutishauser, K. Chakir, E. Lakatta.** NIH/National Institute on Aging.
- E588** LB460 Longitudinal Effects of Voluntary Aerobic Exercise on Heart Rate and Rhythm, their Autonomic Modulation, and Body Weight and Frailty in Older Rats. **C.A. Rutishauser, J.E. Bonin, J. Axsom, E.G. Lakatta.** NIH/National Institute on Aging.
- E589** LB461 Peak Exercise and Post-Exercise Recovery Oxygen Uptake and Muscle Oxygenation in Patients with Heart Failure and Preserved Ejection Fraction and Healthy Matched Adults. **N. Boyes, J. Eckstein, S. Pylypchuk, D. Lahti, S.J. Butcher, D.D. Marciniuk, D.M. Dewa, C.R. Wells, M.J. Haykowsky, C.R. Tomczak.** University of Saskatchewan, Canada and University of Texas at Arlington, Canada.
- E590** LB462 High Phosphate Diet Induces Exercise Intolerance and Impairs Fatty Acid Metabolism in Mice. **P.A. Perikony, K. K. Baskin, G. Iwamoto, J.H. Mitchell, S. A. Smith, H. K.A. Kim, L. I. Szveda, R. Bassel-Duby, T. Fujikawa, C. M. Castro, J. Richardson, J. M. Shelton, C. Ayers, J. D. Berry, V. S. Malladi, M-C. Hu, O. W. Moe, P. E. Scherer, W. Vongpatanasin.** Saint Luke's Mid America Heart Institute, Ohio State University, UT Southwestern and UT San Antonio.
- E591** LB463 The role of apelinergic system during the development of the cardiovascular system in the offspring of rat dams with depressive-like behaviour during pregnancy. **A. Cudnoch-Jedrzejewska, K. Czarzasta, M. Wojciechowska, A. Segiet, M. Makowska-Zubrycka, K. Kasarek, K. Tyszkowska, K. Matusik, E. Sajdel-Sulkowska.** Medical University of Warsaw, Poland, Harvard Medical School, Poland and Harvard Medical School.
- E592** LB464 The effect of a high fat diet in the regulation of MAP kinase in left ventricle fibrosis. **A. Cudnoch-Jedrzejewska, K. Czarzasta, L. Koperski, A. Segiet, L. Fus, B. Gornicka.** Medical University of Warsaw, Poland.
- E593** LB465 Vascular Action of Insulin in Pregnancy. **B. Rodriguez Reyes, E.I. Pérez Muñoz, R.M. López Mayorga, R.A. Bobadilla Lugo.** Instituto Politécnico Nacional, Mexico.
- E594** LB466 The Effects of Cardiolipin on Vascular Smooth Muscle Cell Dedifferentiation and Migration. **D. Galambo, A. Bergdahl.** Concordia University, Canada.
- E595** LB467 Impact of dietary fat and sucrose consumption on cardiac fibrosis in rhesus monkeys and mice. **N. Natarajan, A. Vujic, J. Das, A.C. Wang, K.K. Phu, S.H. Kiehm, E.M. Ricci-Blair, J.A. Mattison, R.J. Colman, R.T. Lee.** Harvard University, Ragon Institute of MIT, MGH and Harvard, Massachusetts Institute of Technology, National Institute on Aging, University of Wisconsin, Madison and Brigham and Women's Hospital.
- E596** LB468 Effect of Buyang Huanwu Decoction on Renal Injury in Spontaneously Hypertensive Rats. **Y. Wang, H. Xu, X. Wang, L. Cui, S. Liu, S. Zhang.** Henan University of Traditional Chinese Medicine, People's Republic of China and Michigan State University.
- E597** LB469 Effects of Gene-Environment Interactions on Endothelial Function in Adolescents: GSTM1 and GSTT1 Polymorphisms and Tobacco Smoke Exposure. **M.S. Tingey, S.J. Sojourner, R.A. Harris, F.A. Treiber.** Augusta University and Medical University of South Carolina.
- E598** LB470 Drp1 inhibitor mdivi-1 attenuates disturbed flow-induced metabolic shift and prevents cell activation in endothelial cells. **S-G. Hong, J. Shin, M. Rath, J. Sayoc, S-Y. Choi, J-Y. Park.** Temple University.
- E599** LB471 Endothelial Function is Attenuated Following Total Sleep Deprivation in Healthy Young Adults. **B.J. Holmer, S. Lapierre, C.L. Alviar, J. Lim, Y. Sakarya, W. New, M. Eagle, C. Schwartz, G. Bhattal, P. Maharrey, E.M. Handberg, D.D. Christou.** University of Florida.
- E600** LB472 Effects of Angiotensin Converting Enzyme Polymorphism in Acute Myocardial Infarction. **O. Albuquerque de Moraes, K. Scapini, L. Jensen, L. Eziqiel de Souza, M. C. Irigoyen.** Heart Institute of Faculty of Medicine, University of São Paulo, Brazil and Sao Judas Tadeu University, Brazil.
- E601** LB473 Treatment of Hypertension with Stable Analogue of 14, 15-Epoxyeicosatrienoic Acid (EET-A) in Spontaneously Hypertensive Rats. **I. Baranowska, O. Gawrys, A. Walkowska, Z. Husková, Z. Honetschlagerová, L. Cervenka, J. Falck, E. Kompanowska-Jeziarska.** Mossakowski Medical Research Centre Polish Academy of Sciences, Poland, Institute for Clinical and Experimental Medicine, Czech Republic, 2nd Faculty of Medicine, Charles University, Czech Republic and University of Texas Southwestern Medical Center.
- E602** LB474 Impairment On Cardiovascular And Autonomic Adjustments To Isometric Exercise In Obese Subjects: Correlations With Indexes Of Obesity. **R.M. da Silva, A. Viana, T. L. dos Santos, K. De Angelis.** Universidade Nove de Julho, Brazil and Universidade Nove de Julho, Universidade Federal de São Paulo, Brazil.
- E603** LB475 O-GlcNAc Transferase Plays a Direct Role in Vascular Smooth Muscle Cell Phenotypic Switching. **S. Khanal, A. Mathias, K. Storm, D. Kundu, P. Raman.** Northeast Ohio Medical University and Kent State University.
- E604** LB476 Ectopic Cardiogenic Transcription Factor Expression Augments the Anti-fibrogenic Activity of Administered Cardiac Mesenchymal Stromal Cells in a Model of Chronic Ischemic Cardiomyopathy. **J.S. Heide, A. Fischer, G. Sadri, X-L. Tang, W-J. Wu, S. Uchida, H. Stowers, R. Bolli, J. Moore IV.** University of Louisville.

- E605** LB477 Proteasome Phosphorylation and Activation by PKA Protects against Cardiac Remodeling in Mice Subjected to Myocardial Infarction. **X. Wang, P. Wu, B. Pan, N. Parajuli, M. Lewno, J. Liu.** University of South Dakota Sanford School of Medicine, Guangzhou Medical University, People's Republic of China and Gunagzhou Medical University, People's Republic of China.
- E606** LB478 Heterogeneous Effects of Aging on Vasomotor Function in Large and Small Arteries. **H. Kim, M. Luttrell, S. Y. Shin, D. Holly, H. Dezell, C. Woodman, M. Massett.** Texas A&M University.
- E607** LB479 K475E *PRKAG2* Mutation: Cardiac Phenotype and Targeted Therapy Using Rapamycin. **Y-T. Tseng, Z. Wang, J. Padbury, C. Phornphutkul.** Women & Infant's Hospital of Rhode Island, Alpert Medical School of Brown University and Rhode Island Hospital.
- E608** LB480 OxPCs-Mediated Lipid Metabolic Responses in Cardiomyocytes as well as During Ischemia Reperfusion Injury. **A.K. Bagchi, A. Surendran, A. Ravandi, D. Jassal, P.K. Singal.** Max Rady College of Medicine, Rady Faculty of Health Sciences and University of Manitoba, Canada.
- E609** LB481 Preventive Melatonin Administration Decreased Dispersion of Repolarization and Myocardium Susceptibility to Ventricular Tachyarrhythmias in a Model of Acute Coronary Occlusion in Rabbits. **J.E. Azarov, M.A. Vaykshnorayte, K.A. Sedova, S.N. Kharin, O.G. Bernikova.** Institute of Physiology, Komi Science Center, Ural Branch of Russian Academy of Sciences, Russian Federation, Medical Institute of Pitirim Sorokin Syktyvkar State University, Russian Federation, Faculty of Biomedical Engineering and Czech Technical University in Prague, Czech Republic.
- E610** LB482 Two-Weeks of Remote Ischemic Preconditioning Alters Sympathovagal Balance. **R.N. Gardner, J.L. Sabino-Carvalho, L.C. Vianna, J.A. Lang.** Iowa State University and University of Brasilia, Brazil.
- E611** LB483 Effects of Empagliflozin on Cardiac Function of Diabetic Infarcted Rats: Echocardiographic Evaluation. **B.D. Silva, L.E. de Souza, M.B. da Silva, C.M. Soares, P.L. Cruz, P.M. M. Dourado, F. Consolim-Colombo, M. C.C. Irigoyen.** Instituto do Coração (InCor) da Faculdade de Medicina da Universidade de São Paulo, Brazil.
- E612** LB484 Endothelial cell-mediated formation of high density lipoprotein-like particles. **H. Yang, N. Zhang, E. U. Okoro, J. Hairston-Paschall, Z. Guo.** Meharry Medical College.
- E613** LB485 Recombinant Factor XIIIa and ACTH(1-24) as Adjuncts During Prolonged Hypotensive Resuscitation in swine (*Sus scrofa domesticus*): Optimizing Outcomes for the Prolonged Field Care Environment. **V.D. Chaplin, G. Rodriguez, G.A. Pratt III, J.J. Glaser, N. McNeal.** Naval Medical Research Unit-San Antonio.
- E614** LB486 Modulation of Left Ventricular Diastolic Filling During Exercise in Persons with Cervical Motor Incomplete Spinal Cord Injury. **M.I. Aldhahi, R.E. Keyser, A. Guccione, J. Collins, L. Chin, J. Woolstenhulme.** Princess Nora Bint Abdulrahman University, Saudi Arabia, George Mason University and George Washington University.
- E615** LB487 Association between large elastic artery stiffness and brain mechanical properties. **F. Sanjana, P. Delgorio, T.M. DeConne, J.C. Hobson, C.L. Johnson, C.R. Martens.** University of Delaware.
- E616** LB488 Molecular Bases For High (Hf) And Low Frequency (Lf) Bands: A New Approach To Heart Rate Variability Analysis. **E.J. ACERO, J.J. GALLEGO, H.H. LEON, D.A. BOTERO, C.E. MELO.** Universidad De La Sabana, Colombia and Universidad Militar "Nueva Granada", Colombia.
- E617** LB489 Effect of selective His bundle pacing on ventricular fibrillation activation rates in rabbit hearts. **A.R. Shah, M.S. Khan, M. Lange, A. White, D. Dossdall.** University of Utah and CVRTI University of Utah.
- E618** LB490 Total Sleep Deprivation Does Not Adversely Affect Arterial Stiffness, Wave Reflection and Aortic Pressure in Young Healthy Men. **S. Lapierre, B.J. Holmer, J. Lim, Y. Sakarya, W. New, M. Eagle, C-L. Hwang, C. Schwartz, G. Bhattal, P. Maharrey, E.M. Handberg, D.D. Christou, C.L. Alviar.** University of Florida.
- E619** LB491 Study of a New Working Memory Paradigm for Hypertensive Patients. **R. Paradela, B. Cabella, M.P. Nucci, M. C. Irigoyen.** Instituto do Coracao (InCor), Hospital das Clinicas HCFMUSP, Faculdade de Medicina, Universidade de Sao Paulo, Brazil, São Paulo State University, Brazil, Laboratory of Medical Investigations on Magnetic Resonance Imaging (LIM-44), Hospital das Clinicas HCFMUSP and Universidade de São Paulo, Brazil.
- E620** LB492 Capsazepine decrease the pressor response to stimuli other than transient receptor potential vanilloid-1 agonists. **G.P. Ducrocq, J.A. Estrada, J.S. Kim, M.P. Kaufman.** Heart and Vascular Institute and Penn State College of Medicine.
- E621** LB493 CD8 T cells exert a critical role in the transition from left heart failure to lung remodeling and right ventricular hypertrophy. **D. Wang, X. Weng, W. Yue, Y. Chen.** Tenth People's Hospital, People's Republic of China, Fudan university, People's Republic of China and University of Minnesota Medical School.
- E622** LB494 Effects of an Acute Vitamin C Infusion on Neurovascular Coupling in Healthy Adults. **T.M. DeConne, F. Sanjana, W. Nichols, J.C. Hobson, C.R. Martens.** University of Delaware.
- E623** LB495 Cardiovascular baroreflex gain relates to sensory but not neurological level of spinal cord injury. **A.E. Draghici, J.A. Taylor.** Spaulding Rehabilitation Hospital and Harvard Medical School.
- E624** LB496 Effects of Home-Based Exercise Training on Post-Exercise Peripheral Muscle Oxygenation in Children with Congenital Heart Disease. **D.S. Lahti, C.R. Blushke, C. Pockett, T.J. Bradley, S. Pharis, S.J. Butcher, K. Kosokowsky, N.G. Boyes, K.D. Wright, M.C. Erlandson, C.R. Tomczak.** University of Saskatchewan, Canada and University of Regina, Canada.
- E625** LB497 Chemerin decreases vascular reactivity to contractile stimuli in resistance vessels from Sprague Dawley rats fed a high fat diet for 1 month. **N. Klee, J. McKinzie, O. Arishe, F. Priviero, C. Webb.** Medical College of Georgia.
- E626** LB498 Effects Of Radiation On Cutaneous Microvascular Function In The Intact Human Circulation. **H.R. Banister, S.K. Parr, V-R.G. Turpin, C.J. Ade.** Kansas State University.
- E627** LB499 MicroRNA-181b Regulates Ca²⁺ Influx by Targeting TRPC6 in PASM from Patients with Idiopathic Pulmonary Arterial Hypertension. **A. Babicheva, A. Makino, J.X-J. Yuan.** UCSD.
- E628** LB500 Allicin Reverses Diabetes-Induced Dysfunction of Human Coronary Artery Endothelial Cells. **D. Horuzsko, M. LaCavera, H. Ma, Y. Wu, S. Zhu, R. White.** GA-PCOM.
- E629** LB501 Post-Exercise Oxygen Uptake and Muscle Oxygenation in Pediatric Heart Transplant Recipients. **K. Kosokowsky, N.G. Boyes, D.S. Lahti, C.R. Blushke, D. Marciniuk, S.J. Butcher, M.C. Erlandson, K.D. Wright, C. Pockett, C.R. Tomczak.** University of Saskatchewan, Canada and University of Regina, Canada.

- E630** LB502 Is Arterial Stiffness Increased in Pediatric Heart Transplant Recipients? **S. Singh, C.R. Blushke, N.G. Boyes, D.S. Lahti, K. Kosokowsky, D. Marciniuk, S. Butcher, M.C. Erlandson, K.D. Wright, S. Pharis, C. Pockett, C.R. Tomczak.** University of Saskatchewan, Canada and University of Regina, Canada.
- E631** LB503 Myeloid Derived miR-21 Influences Coronary Collateral Growth in Metabolic Syndrome. **C. Juguilon, Y. Xu, J. Gadd, W. Wan, A. Jamaiyar, M. Enrick, W. Chilian, L. Yin.** Northeast Ohio Medical University.
- E632** LB504 Retrograde and Oscillatory Shear Remain Stable Across the Menstrual Cycle but Increase in Postmenopausal Women. **Y.B. Somani, D-K. Kim, M.A. Barrett, A. Ogot, M. J. De Souza, D.N. Proctor.** Penn State.
- E633** LB505 Effect of Isometric Handgrip Exercise on Diastolic Function in Pediatric Heart Transplant Recipients. **C.R. Tomczak, C.R. Blushke, D.S. Lahti, K. Kosokowsky, R.M. Iqbal, S. Singh, N.G. Boyes, M.C. Erlandson, K. Wright, S. Pharis, C. Pockett.** University of Saskatchewan, Canada and University of Regina, Canada.
- E634** LB506 Antifibrotic Effect of (-)-Epicatechin in a Rodent Model of Early Stage HFpEF. **M.M. Bustamante Pozo, A. Garate Carrillo, B. Ito, R. Garcia, N. Carson, G. Ceballos, I. Ramirez-Sanchez, J. Omens, F. Villarreal.** UCSD-IPN, UCSD and BMS-UCSD.
- E635** LB507 Smooth muscle-selective ablation of A-kinase anchoring protein 150 (AKAP150) mitigates diabetes-induced cardiac dysfunction. **D. Zhang, K.R. Brittan, A. Bhatnagar, M.A. Nystoriak.** University of Louisville.
- E636** LB508 Prevention of Obesity-Associated Coronary and Cardiac Diastolic Dysfunction by Deletion of Smooth Muscle Cell Mineralocorticoid Receptor in Females. **S.M. Brown, C.G. Aragon, M.L. Khan, B. Chandrasekar, V.G. DeMarco, I.Z. Jaffe, S.B. Bender.** University of Missouri, Harry S Truman Memorial VA Hospital and Tufts Medical Center.
- E637** LB509 Role of the LPC-ATX-LPA Axis in the Development of Endothelial Dysfunction. **A. Janovicz, N.M. Kerkovits, A. Majer, L. Balogh, A. Balogh, G.J. Tigyi, Z. Benyo, E. Ruisanchez.** Institute of Clinical Experimental Research, Semmelweis University, Hungary and University of Tennessee Health Science Center.
- E638** LB510 Anaphylatoxin C3a induces vasoconstriction and hypertension mediated by thromboxane A₂ in mice. **N.M. Kerkovits, A. Janovicz, É. Ruisanchez, E. Órfi, P. Gál, G. Szénási, Z. Benyó.** Institute of Clinical Experimental Research, Semmelweis University, Hungary, Department of Pathophysiology, Semmelweis University, Hungary, Institute of Enzymology, Research Centre for Natural Sciences and Hungarian Academy of Sciences, Hungary.
- E639** LB511 Coronary Smooth Muscle Cytodifferentiation is Associated with an Increase in Pro-Inflammatory, Pro-Calcifying Gene Expression in an Organ Culture Model of Coronary Artery Disease. **J. Badin, M. Sturek.** Indiana University School of Medicine.
- E640** LB512 Chronic effects of vaping with and without nicotine on arterial stiffness in rats. **L.A. Hare, E. Aboaziza, J. Moore, S. Dangott, J. O'Reilly, P.D. Chantler, I. M. Olfert.** West Virginia University School of Medicine.
- E641** LB513 Endothelial Estrogen Receptor α/β Protein Ratio is Associated with Circulating Estrogen Levels in Healthy Women. **Y-M. Park, A.C. Keller, S.S. Runchey, A. Brubaker, K.L. Hildreth, K.L. Moreau.** University of Colorado Anschutz Medical Campus.
- E642** LB514 Mouse Genetic Background influences Endothelial Function along the Mouse Vascular Tree. **D.S. Holly, H. Kim, S.Y. Shin, H. Dezell, C.R. Woodman, M.P. Massett.** Texas A&M University.
- E643** LB515 Inhibition of the RNA binding protein HuR protects against cardiac ischemia/reperfusion injury by reducing inflammatory gene expression. **S. Slone, S. Fleifil, S. Anthony, L. Green, M.L. Nieman, J. Lorenz, M. Tranter.** University of Cincinnati.
- E644** LB516 MicroRNA Profiling in Coronary Endothelial Cells in Type 2 Diabetic Mice. **Q. Zhang, A. Tsuji-Hosokawa, M. Watanabe, A. Makino.** The University of Arizona, University of California and San Diego.
- E645** LB517 Effects of Vasopressin and Norepinephrine on Wound Healing of Vascular Smooth Muscle and Endothelium. **K.J. Bogenberger, D.H. Ho.** Tripler Army Medical Center.
- E646** LB518 Lower baroreflex sensitivity during muscle metaboreflex activation in children and adolescents with the Fontan circulation and single ventricle physiology. **N.G. Boyes, R.M. Iqbal, S. Fusnik, D.S. Lahti, M.C. Erlandson, K.D. Wright, A. Kakadekar, T.J. Bradley, S. Pharis, C. Pockett, T. D. Olver, C.R. Tomczak.** University of Saskatchewan, Canada and University of Regina, Canada.
- E647** LB519 Short term Pm2.5 exposure caused a robust lung inflammation, vascular remodeling, and exacerbated transition from left ventricular failure to right ventricular hypertrophy. **W. Yue, T. Lei, Y. Chen.** Tongji University, Cardiovascular Department, Shanghai Tenth Renmin Hospital of Tongji University, People's Republic of China, University of Chinese Academy of Sciences, People's Republic of China, University of Minnesota Medical School and Minneapolis.
- E648** LB520 Family History of Obstructive Sleep Apnea and Risk of Obesity. **A. Rajendran, A.B. Danyluk, K.L. Smith, A.R. Boeve, J. Bukartyk, P.R. Singh, V.K. Somers, N. Covassin.** Mayo Clinic.

WATER AND ELECTROLYTE HOMEOSTASIS

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E649** LB521 Orthopedic Injury-Induced Hypercoagulability in Rats. **A.C. Palei, K.T. Carter, B.M. Witcher, F.T. Spradley, M.E. Kutcher.** University of Mississippi Medical Center.
- E650** LB522 Modification of the Renal Vasoconstrictor Response to Sympathetic Stimulation by Soft Drink Consumption. **T. Grigoryan, C.L. Chapman, A. Gonazlez, P. Kueck, N.T. Vargas, B.D. Johnson, Z.J. Schlader.** University at Buffalo.
- E651** LB523 Mechanism of Urea, Water and NH₃ Movement through Urea Transporter-A2 Expressed in *Lithobates catesbeianus* Oocytes. **J. Kabutomori, N. Pina-Lopes, R. Geyer, R. Musa-Aziz.** Sao Paulo Univ., Brazil.
- E652** LB524 Estradiol Decreases MAPKs phosphorylation in Response to Angiotensin II by Increasing MKP-1 in the Hypothalamus, but not in the Lamina Terminalis. **G. Almeida-Pereira, T. Vilhena-Franco, R. Coletti, S. Cognuck, H. Silva, L. Elias, J. Antunes-Rodrigues.** Sao Paulo University, Brazil.
- E653** LB525 Safety and Feasibility of Oral Bicarbonate Supplementation as an Intervention to Prevent Mobility Disability. **S. Petrovic, A. Anderson, K.M. Beavers, X.I. Leng, A.N. Raynor, M.E. Miller, D.E. Wesson, S.B. Kritchevsky.** Wake Forest School of Medicine, Wake Forest University, Texas A&M Health Sciences Center College of Medicine and Health and Wellness Center.

E654 LB526 Exploring the Link between Superimposed Preeclampsia and the Gut Microbiome. **A.A. Akinleye, A.C. Johnson, M.R. Garrett, J.M. Sasser.** University of Mississippi Medical Center.

RENAL PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E655** LB527 PPAR α interacts with PHD proteins on Renal Fibrosis in a Mouse Unilateral Ureteral Obstruction Model of Chronic Kidney Disease. **M. Choi, A. Oyekan.** Texas Southern University.
- E656** LB528 Mucin 1 Regulates KIM-1 Function Following Ischemic Renal Injury. **M. Al-bataineh, C. Kinlough, Z. Mi, E. Jackson, R. Hughey.** University of Pittsburgh.
- E657** LB529 CGRP stimulates profibrogenic growth factors in kidney proximal tubular cells. **J. Kim.** Department of Anatomy and Jeju National University School of Medicine, Republic of Korea.
- E658** LB530 The Microbiome Product Urolithin A Abolishes TGF β -Dependent Stimulation of PAI-1 in Renal Epithelial Cells. **M.C. Chappell, G. Pingue, N. Pirro, A. Tallant, P. Gallagher.** Wake Forest School of Medicine.
- E659** LB531 CK2 Phosphorylation of ENaC Directs Ankyrin-3 Activity. **J.M. Berman, E. Mironova, J. Stockand, C. Archer.** UT Health San Antonio.
- E660** LB532 Sex Differences in Systemic and Renal Tissue Urea Concentrations. **E.I. Boesen, J. Wang-France, S.S. Rahman.** University of Nebraska Medical Center and Stanford University School of Medicine.
- E661** LB533 Renal Microvascular Rarefaction Accompanies Interstitial Fibrosis and Tubular Damage in One Kidney-Deoxycorticosterone Acetate-Salt (1K/DOCA/salt)-Dependent Hypertension. **N. Saini, J. Thomas, B. Huuskes, P. Sharma, C. Sobey, A. Vinh, G. Drummond.** La Trobe University, Australia.
- E662** LB534 RNA Seq Analysis Reveals Metabolic and Natriuretic Pathways Regulated by Renal T Cell Infiltration. **A. Dayton, C. Yang, A. Alsheikh, J. Abais-Battad, J. Bukowy, X. Pan, D. Mattson, A. Cowley, L. Evans.** Medical College of Wisconsin and University of Minnesota.
- E663** LB535 Renin Gene Editing in Zebrafish. **L.J. Mullins, S. Hoffmann, S. Rider, M. Bradley, J. Mullins.** Queen's Medical Research Institute, United Kingdom and University of Edinburgh, United Kingdom.
- E664** LB536 Single Cell Ablation in the Zebrafish Kidney using SPIM and a Bessel Beam. **C. Brown, C. Buckley, S. Hoffmann, S. Rider, J. Girkin, J. Mullins.** Queen's Medical Research Institute, United Kingdom and Durham University, United Kingdom.
- E665** LB537 Pre-transcriptional fibrotic factor alterations do not contribute to high fat diet associated renal fibrosis in Dahl salt sensitive male rats. **R. Fernandes, J.J. Galligan, G.D. Fink, H. Xu.** Michigan State University.
- E666** LB538 Male Kidney-specific Bmal1 Knockout Mice Show a Similar, Exaggerated Active-Inactive Period Difference in Ammonia Excretion to Controls after Potassium Deprivation. **J.G. Johnston, G.R. Crislip, L.G. Douma, S.H. Masten, K-Y. Cheng, I.J. Lynch, D. Barral, K. Glasford, K.A. Esser, M.L. Gumz, C.S. Wingo.** University of Florida and North Florida/South Georgia Veterans Health System.
- E667** LB539 Recharacterizing the Murine Chronic Angiotensin II Infusion Model of Cardiovascular and Renal Injury. **R.M. Lutz, J.C. Gigliotti.** Liberty University College of Osteopathic Medicine.

E668 LB540 Anesthetic Influences Outcomes of the Chronic Angiotensin II Infusion Model in Mice. **D. Pogarcic, K.M. Smith, R.M. Lutz, J.C. Gigliotti.** Liberty University College of Osteopathic Medicine.

GASTROINTESTINAL AND LIVER PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E669** LB541 Altered Mucin Expression in the Gastric Epithelium After Injury and Regeneration May Result in Increased *Helicobacter pylori*-Induced Gastric Ulcers in the Elderly. **M.B. Dua-Awereh, J. Chakrabarti, S. Goker, A. Engevik, J. Hawkins, M. Helmrath, Y. Zavros.** University of Cincinnati College of Medicine, Vanderbilt University and Cincinnati Children's Hospital and Medical Center.
- E670** LB542 Modulation of gut microbiota by cyanidin 3-glucoside in a mouse model of fatty liver disease. **S. Wu, J. Liu, Z. He, J. Tan, M. Liu, D-X. Hou, J. He.** Hunan Agricultural University, People's Republic of China and Kagoshima University, Japan.
- E671** LB543 Effect of in vitro fermentation derived microbial metabolites on intestinal enteroid function. **D.M. Van Sambeek, K. Racicot, J.W. Soares, L.A. Doherty, S.C. Pearce.** US Army CCDCSC.
- E672** LB544 Hepatic Regeneration Indices And Best Period Post 70% Hepatectomy Treatment: An Experimental Model. **L. M.G. D. A. Oliveira, P. L.S. Leme, M. C.G. Chavantes.** Universidade Nove De Julho, Brazil and Universidade São Camilo, Brazil.
- E673** LB545 A Novel Role of SLC26A3 in Maintenance of Intestinal Barrier Function. **A. Kumar, S. Priyamvada, D. Jayawardena, A.N. Anbazhagan, I. Chatterjee, A. Dayal, A. Borthakur, S. Saksena, W. Alrefai, R.K. Gill, P.K. Dudeja.** University of Illinois at Chicago and Jesse Brown VA Medical Center.
- E674** LB546 Intestinal Inflammation Differentially Influences Iron Homeostasis in WT versus Hcpidin KO Rats. **S. Flores, X. Wang, S. Nelson, R. Woloshun, J. Ha, J. Collins.** University of Florida.
- E675** LB547 Dietary Zinc Supplementation from Organic and Inorganic Sources Induce Differential Intestinal Gene Expression in Swine. **R. L. Medida, A. K. Sharma, Y. Guo, M. Wilson, A. Gomez, M. Saqui-Salces.** University of Minnesota and Zinpro Corporation.
- E676** LB548 Altered Contraction Phenotype and Smooth Muscle Function in the Intestine of Dystrophin-Deficient (*mdx*) Mice. **S. Mahavadi, A. Gorti, R. Manjunath, G. Randhawa, K. Singh, J.R. Grider, K.S. Murthy.** Virginia Commonwealth University.
- E677** LB549 Select Amino Acids Alter DMT1 Abundance on the BBM of Intestinal Enterocytes and Enhance or Reduce Iron Flux in Duodenal Organ Cultures. **R.R. Woloshun, X. Xu, X. Wang, Y. Yu, S.R. Flores, S. Vidyasagar, J.F. Collins.** University of Florida.

NUTRITION PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E678** LB550 The Impact of Artificial Sweeteners on Insulin, Body Composition and Drink Choice in Mice. **T. Provost, G. Bortiatynski, A. Scalise, Q. Smith, B. Twitchell.** Utica College.
- E679** LB551 Oral Delivery of Dmt1 siRNAs by Ginger Nanoparticle-derived Lipid Vectors Mitigates Iron Loading in Hepcidin KO Mice. **X. Wang, M. Zhang, S.R. Flores, R.R. Woloshun, C. Yang, L. Yin, P. Xiang, X. Xu, M.D. Garrick, S. Vidyasagar, D. Merlin, J.F. Collins.** University of Florida, Georgia State University and University at Buffalo.
- E680** LB552 Nicotinate supplements slow onset and severity of symptoms in the monosodium iodoacetate (MIA) rat model for osteoarthritis (OA). **A. Bellamine.** Lonza.
- E681** LB553 Effect of Resistance Exercise on Bones in Calcium-deficient Rats. **T. Hirakawa, T. Fujii, K. Matsumoto, K. Okamura.** Osaka University of Health and Sport Sciences, Japan and Kobe Women's University, Japan.
- E682** LB554 Effects of the Speed of Body Weight Loss on Body Composition Changes and Energy Density for Body Weight Loss in Exercised Rats. **M. Kitaguchi, M. Maeda, K. Okamura.** Osaka University of Health and sport sciences, Japan.
- E683** LB555 Reduced amino acids: the placenta after maternal vertical sleeve gastrectomy in the rat. **B. Welch, A. Himel, B. Duncan, R. Spann, B.E. Grayson.** University of Mississippi Medical Center.
- E684** LB556 High-Protein Diet-Induced Changes in Body Composition and Metabolic Flexibility in Women: Feasibility of a Novel Template-based Intervention Delivery Method. **A. Olenick, A. Niersbach, R.C. Pearson, E.S. Green, N.T. Jenkins.** University of Georgia.
- E685** LB557 Development of in vitro models of the human intestinal microbiome. **L.A. Doherty, J. Whitman, S. Arcidiacono, I. Pantoja-Feliciano, K. Racicot, J.W. Soares.** U.S. Army Natick Soldier Research Development & Engineering Center.
- E686** LB558 Effects of Ketogenic Diet on p70S6k Phosphorylation in Young Adult and Old Soleus Muscle. **S.L. Bennett, A.H. Smith, J.L. Ramirez, D.M. Thomson.** Brigham Young University.
- E687** LB559 Determining the Physiological Interaction Between Diet and Alcohol Intake in Male Mice. **E.H. Lee, R.M. Lutz, J.W. Brewer, J.C. Gigliotti.** Liberty University College of Osteopathic Medicine.
- E688** LB560 The Effect of Engaging in a Lifestyle Weight Loss Program on Adaptive Thermogenesis in Older Adults. **M.E. Baugh, T. Brinkley, D. Houston, M. Lyles, C. Hugenschmidt, K. Beavers, X. Leng, B. Nicklas.** Wake Forest School of Medicine and Wake Forest University.
- E689** LB561 Holistic Neuro-Physio Quanta Coherence-Congruence Energy Dynamics for Exploring the Cause and Symptoms of Diseases. **O.L. Tulp, G.P. Einstein, M.S. Rahman, C.M. Konyk.** USAT Montserrat, Montserrat and Einstein Medical Institute.

ENDOCRINOLOGY AND METABOLISM PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E690** LB562 Physical and Metabolic Characteristics of p62 Knockout Mouse: A New Animal Model of Obesity/Insulin Resistance. **D-H. Kim, G. Salazar, H-S. Hwang, A. Klemp, M-C. Yeh, P.R. Worts, L.B. Panton, B.H. Arjmandi, S.C. Grant, J-S. Kim.** Florida State University.
- E691** LB563 MicroRNA (miR-93) Overexpression Selectively in Adipose Tissue Induces Obesity. **E. Chen, H. L. Wu, Y. H. Chen.** Westview High School, Augusta University, University of California and Riverside.
- E692** LB564 A thermogenic-like brown adipose tissue phenotype is dispensable for enhanced glucose tolerance in female mice. **N. Winn, R. Acin-Perez, M. Woodford, S. Hansen, M. Haney, L. Ayedun, R. S. Rector, V. Vieira-Potter, O. Shirihai, H. Sacks, J. Kanaley, J. Padilla.** University of Missouri-Columbia, Vanderbilt University and University of California-Los Angeles.
- E693** LB565 Elevated FGF21 during insufficient sleep in active but not sedentary volunteers. **J.L. Broussard, S.J. Morton, E.M. Marbas, O.A. Knauer, E.L. Melanson, K.P. Wright; Jr.** Colorado State University, University of Colorado Anschutz Medical Campus and University of Colorado Boulder.
- E694** LB566 Exposures to L-felinine Suppressed Plasma Testosterone in Laboratory Rats. **V.V. Voznessenskaya, T.K. Laktionova.** A.N. Severtsov Institute of Ecology & Evolution, Russian Federation.
- E695** LB567 Inverse relationship between very low-density lipoprotein (VLDL) ceramides, diacylglycerols, and triacylglycerols in human hepatic lipid accumulation. **J.M. Mucinski, M.M. Syed-Abdul, T.J. Garrett, E.J. Parks.** University of Missouri and University of Florida.
- E696** LB568 The absence of AMPK beta1 exacerbates the acute olanzapine-induced hyperglycemia in female mice. **H. Shamshoum, K.D. Medak, G. Wojdyla, W.T. Pepler, L.K. Townsend, B.E. Kemp, D.C. Wright.** University of Guelph, Canada and University of Melbourne, Australia.
- E697** LB569 Leptin Induced Satiety and the Contribution of Brainstem Astrocytes. **L. Stein, R. Lhamo, A. Cao, I. Tinsley, R. Doyle, M. Hayes.** University of Pennsylvania and Syracuse University.
- E698** LB570 Lipid Metabolism at Two Different Walking Speeds in Obese Individuals: Pilot Study. **M. D. Choi, T.D. Taylor.** Oakland University.
- E699** LB571 Impact of Single Nucleotide Polymorphisms on HPA-Axis Functionality. **A.P. Caruso, T. Sharma, A. Martino, H. Zhou, J.R. Cohen, M. Lukowitsky, B.D. Cohen.** Union College and Albany Medical College.
- E700** LB572 Insulin Treatment Rescues Alterations in the Lung following H1N1 Influenza Virus Infection in Diabetic Mice. **A. Campolo, M. Terhuja, Y. Liang, Z. Maria, M. Hinsdale, L. Liu, V. Lacombe.** Oklahoma State University and Oklahoma Medical Research Foundation.
- E701** LB573 hNAG-1 improves insulin sensitivity and ovarian function in young and aged female mice upon high fat diet treatment. **Y. Wang, K. Wu, D. Guo, C. Guo, H. Pan, T. Sang, Y. Wang, X. Wang.** Zhejiang Chinese Medical University, People's Republic of China.

RESPIRATION PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E702** LB574 Proteolytic Cleavage by House Dust Mite Impairs SPLUNC1's Ability to Modulate T_H2 Inflammation in the Airway. **T. Wu, R. Tarran**. North Carolina Central University and The University of North Carolina at Chapel Hill.
- E703** LB575 Impaired Acute Hypoxic Sensing in Olfactory Receptor 78 Knockout Mice. **Y-J. Peng, J. Nanduri, N. Wang, A. Girdina, A. Fox, N.R. Prabhakar**. The University of Chicago.
- E704** LB576 Phrenic Nerve and Carotid Body Responses to Hypoxia and CO₂ in Naked Mole Rats. **B. Wang, Y-J. Peng, J. Nanduri, N. Wang, N.R. Prabhakar, M. Pamerter**. The University of Chicago and University of Ottawa, Canada.
- E705** LB577 H₂S synthesis inhibitor prevents hypoxia-evoked periodic breathing in spontaneous hypertensive rats. **X. Zhang, Y-J. Peng, J. Nanduri, M. Muzzio, D.L. McCormick, N.R. Prabhakar**. University of Chicago and IIT Research Institute.
- E706** LB578 Chronic model of sulfur mustard-induced lung injury in Fischer 344 rats. **W. Holmes, D. Zimmerman, O. Clark, A. Lewis, A. Rodgers, T. Varney, W. Kimberly, D. Anderson**. USAMRICD.
- E707** LB579 Evidence of endothelial-to-mesenchymal transition in an animal model of pulmonary arterial hypertension. **K.A. Morrow, J.R. Brown, R.L. Morrow, E.A. Snyder, A.A. Vasauskas**. Alabama College of Osteopathic Medicine.
- E708** LB580 Induction of asthma causes sensitization of the carotid bodies to lysophosphatidic acid. **N.G. Jendzjowsky, A. Roy, R. Wilson**. University of Calgary, Canada.
- E709** LB581 Pharmacogenetic Modulation of the Noradrenergic System Reveals Protective and Vulnerable Roles in the Neonate Autoresuscitation Reflex. **F.B. Saldana Morales, A.M. McKinney, V.K. Martinez, X. Jiang, R.S. Ray**. Baylor College of Medicine.
- E710** LB582 Gut Microbiome is Dispensable for Normal Respiratory Function and Chemoreflexes in Adult Mice. **F.B. Saldana Morales, R.S. Ray**. Baylor College of Medicine.
- E711** LB583 Forebrain Alzheimer's Disease Pathology Does Not Result In Disordered Breathing In Mice. **H. Shi, F.B. Saldana Morales, V.K. Martinez, J.L. Jankowsky, R.S. Ray**. Baylor College of Medicine.
- E712** LB584 Mapping Neural Circuits Critical To Upper Airway Function And Breathing-Swallowing Coordination. **H. Shi, R.S. Ray**. Baylor College of Medicine.
- E713** LB585 The Role of Respiratory Noradrenergic Neurons Projecting to the Basal Lateral Amygdala in Anxiety-related Behavior. **V. Martinez, J. Sun, A. McKinney, X. Jiang, R. Ray**. Baylor College of Medicine.
- E714** LB586 Acute hyperglycemia does not alter central respiratory CO₂ chemoreflex responsiveness. **J. Bird, A. Skalk, S. Thrall, N. Strzalkowski, T.A. Day**. Mount Royal University, Canada.

HYPOXIA

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E715** LB587 Inhibition of Nitric Oxide Synthesis Eliminates Interstitial Adenosine Production During Systemic Hypoxia in Rat Skeletal Muscle. **D. MacLean, S. Fabris, A. Bernardo**. Laurentian University, Canada and Northern Ontario School of Medicine, Canada.
- E716** LB588 Ventilatory response to hypoxia and tolerance to high altitude in women: Influence of menstrual cycle, oral contraception and menopause. **J-P. Richalet, F.J. Lhuissier, D. Jean**. Université Paris 13, France and CHU Grenoble-Alpes, France.
- E717** LB589 5-hydroxymethyl-2-furfural (5HMF) Improves Exercise Capacity During Normoxia and Preserves Cardiovascular Function During Severe Hypoxia in Exercising Swine. **B.T. Williams, G.E. Ciarlone, R.T. Mahon, J.M. Swift**. Naval Medical Research Center, HJF and Naval Medical Research Center.
- E718** LB590 Intermittent Hypoxia, Sleep Fragmentation and Glucose Tolerance. **S. Framnes-DeBoer, D. Arble**. Marquette University.
- E719** LB591 Hypoxia Inducible Factor Activation Prevents Renal Mitochondria Dysfunction and Improves Cortical Oxygenation in Type 1 Diabetic Mice. **C. L. Lopes de Carvalho, T. Schiffer, X-W. Zheng, J. Grunler, S. Karlsson, M. Mazzone, P. Carmeliet, R. Inagi, P. Hansell, S-B. Catrina, M. Friederich-Persson, F. Palm**. Uppsala University, Sweden, Karolinska Institute, Sweden, VIB-KU Leuven Center for Cancer Biology, Belgium and Tokyo University, Japan.
- E720** LB592 Increased Serum Erythropoietin despite Normalized Hb Concentration and Arterial O₂ Saturation in Chronic Mountain Sickness after Isovolemic Hemodilution. **F.C. Villafuerte, C. Anza, E.C. Heinrich, M. Tift, R. Figueroa, G. Vizcardo, J.L. Macarlupu, P.D. Wagner, T.S. Simonson**. Universidad Peruana Cayetano Heredia, Peru, University of California, University of North Carolina, University of California and San Diego.

CELL AND MOLECULAR PHYSIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E721** LB593 Resolving tractions across cell-cell adhesion reveals the role of intercellular shear in plithotaxis. **D. Tambe, N.G. Patel, A. Nguyen, N. Xu, D. Alvarez, T. Stevens**. University of South Alabama.
- E722** LB594 Evidence for a Role for Sestrin1 in Mediating Leucine-Induced Activation of mTORC1 in Skeletal Muscle. **D. Xu, K.L. Shimkus, H.A. Lacko, L. Kutzler, L.S. Jefferson, S.R. Kimball**. Pennsylvania State University College of Medicine and Ocean University of China, People's Republic of China.
- E723** LB595 Glucosamine chronic treatment differently modulates uterine artery on pregnant and virgin Wistar rats. **V. Dela Justina, R. Clinton Webb, V. Vitorino Lima, F.R. Giachini**. Augusta University, Federal University of Goias, Brazil and Federal University of Mato Grosso, Brazil.

- E724** LB596 Acidity suppresses T cell function and increases memory T cell development. **H. Wu, V. Estrella, P. Enriquez-Navas, D. Abrahams, A. Ibrahim-Hashim, K. Luddy, M. Damaghi, S. Ravindranadhan Pillai, S. Pilon-Thomas, P. Swietach, R. Gillies.** The Second Affiliated Hospital of Zhejiang University School of Medicine, People's Republic of China, H. Lee Moffitt Cancer Center & Research Institute and University of Oxford, United Kingdom.
- E725** LB597 LDLR-Related Protein 1 Increases Cytokine Sensitivity—Implications for Recovery after Brain Damage. **S.N. Ahmad, P. Reed, S. Sprague, N. Sayre.** UT Health SA.
- E726** LB598 Tunicamycin-induced ER Stress Effect on Cardiac Contractility. **M.S. Alabdjalabar, S. Osorio Valencia, Y.S. Han, G.C. Sieck.** Mayo Clinic, College of Medicine and Alfaisal University, Saudi Arabia.
- E727** LB599 Validation of Nanoparticle Tracking Analysis in Characterizing Extracellular Vesicle Isolated from Polydisperse Biological Samples. **M.E. Rath, S-Y. Choi, J. Sayoc, J. Shin, S-G. Hong, J-Y. Park.** Temple University and Temple University School of Medicine.
- E728** LB600 Hypoxia-Induced Inactivation of 26S Proteasome Increases Immunogenicity of Allogeneic Mesenchymal Stem Cells. **S. Dhingra, E. Abu-EI-Rub, G.L. Sequiera, N. Sareen, W. Yan, A. Rafieerad.** St. Boniface Hospital Research Centre and University of Manitoba, Canada.
- E729** LB601 Aerobic Training Reduces Immune Cell Recruitment and Cytokine Levels in Adipose Tissue in Obese Mice. **A.N. Silva, D.R. Lacerda, M.M. Moraes, K.A. Costa, D.F. Rodrigues, J.L. Sabino, L.M. d. S. Cordeiro, V. Pinho, M.M. Teixeira, S.P. Wanner, D.D. Soares, A.V. M. Ferreira.** Universidade Federal de Ouro Preto (UFOP), Brazil and Universidade Federal de Minas Gerais, Brazil.
- E730** LB602 Adverse Effect of Luteolin on the Anticancer Ability of Oxaliplatin in HCT116 Human Colorectal Carcinoma Cells. **C. H. Jang, N. Moon, J. Oh, J-S. Kim.** Kyungpook National University, Republic of Korea.
- E731** LB603 In Vivo Effect of Luteolin during Oxaliplatin Treatment for Colorectal Cancer. **N. Moon, C.H. Jang, J.N. Averilla, S. Jeong, J.S. Lim, J. Oh, J-S. Kim.** Kyungpook National University, Republic of Korea.
- E732** LB604 Elucidating the Role of DEPTOR in Cultured Glioblastoma Multiforme Cancer Cells. **P.J. Ryan, J.W. Deaver, S. Koo, L.G. Toussaint, J.D. Fluckey.** Texas A&M University and Texas A&M Health Science Center.
- E733** LB605 Protective Effect of Steamed Soybean Wastewater Against Intestinal Inflammation. **S. Jeong, J.N. Averilla, N. Moon, C.H. Jang, J.S. Lim, J.S. Oh, J-S. Kim.** Kyungpook National University, Republic of Korea.
- E734** LB606 Resveratrol protects UVB-irradiated keratinocytes by upregulating HO-1 expression and improving mitochondrial function via endogenous CO signaling. **J.N. Averilla, J. Oh, J-S. Kim.** Kyungpook National University, Republic of Korea.
- E735** LB607 Differential Effects of a Bout of Moderate-intensity Physical Exercise on Adipose Tissue Inflammation in Lean and in Obese Mice. **A.N. Silva, D.R. Lacerda, D.F. Rodrigues, A.L. M. Silveira, M.M. Moraes, V.R. Pinho, M.M. Teixeira, S.P. Wanner, D.D. Soares, A.V. Ferreira.** Universidade Federal de Ouro Preto (UFOP), Brazil and Universidade Federal de Minas Gerais, Brazil.
- E736** LB608 Anoctamin-1 Expression at the Mitochondrial Membrane of Pulmonary Artery Endothelial Cells. **M.W. Cypress, S.M. Adaniya, Y. Suzuki, R. Clements, J. O-Uchi, B. S. Jhun, G. Choudhary.** University of Minnesota and Brown University.
- E737** LB609 Role of Fatty Acid Oxidation and Glucose Oxidation in Endothelial Cell Inflammation and Permeability Associated with Acute Lung Injury. **V. Lopez Ruiz, A. Leonard, A. Rahman, F. Fazal.** University of Rochester.
- E738** LB610 Intracellular BiP/GRP78 Mediates Endothelial Cell Permeability and Inflammation Associated with Acute Lung Injury. **A. Leonard, P-Y. Su, M. Millar, N. Dubey, D. Yule, A. Rahman, F. Fazal.** University of Rochester.
- E739** LB611 Cardiosphere-Derived Cell Exosomes Modulate *mdx* Macrophage Phenotype and Alter Their Secretome. **R.G. Rogers, G. de Couto, W. Liu, L. Sanchez, E. Marban.** Cedars-Sinai Medical Center.

EPITHELIAL TRANSPORT

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E740** LB612 Impact of Developmental Nicotine Exposure on Cholinergic Airway Signaling. **B.D. Rivera, N.G. Borrero, S.J. Cross, R.F. Fregosi, S. Boitano.** University of Arizona and University of Arizona.

CENTRAL NERVOUS SYSTEM

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL-WEST HALL B

- E741** LB613 Loss of lipoprotein receptor LRP1 ablates neural stem cell migration to ischemic lesions. **N. Sayre, E. Kokovay.** UT Health San Antonio and South Texas Veteran's Health Care System.
- E742** LB614 Co-localization of Isolectin B4 (IB4), Ionized Calcium-Binding Adapter Molecule 1 (Iba1), and Von Willebrand Factor (vWF) Immunostaining in the Mid-Cervical Spinal Cord After Spinal Injury. **A.F. Fusco, M.D. Sunshine, K.A. Streeter, L.B. Wollman, M.L. Jorgensen, D.D. Fuller.** University of Florida.
- E743** LB615 Early life vincristine exposure does not prime the developing pain circuitry for subsequent injury. **L. Styczynski, M. Baccei.** University of Cincinnati.
- E744** LB616 Effects of Polystyrene Nanoplastics on Goldfish Olfactory Function. **H. Stoeber, M. Huertas.** Texas State University.
- E745** LB617 Previous Adaptation Period Modulates Pregnancy Swimming Neuroprotective Effects on the Offspring Following Neonatal Hypoxic-Ischemic Brain Injury. **I.D. Tassinari, E.F. Sanches, R.B. Fabres, M.K. G. Andrade, T.L. Rodrigues, A.S. Carvalho, E. Rezena, L.S. Mazon, C.A. Netto, L.S. de Fraga.** Federal University of Rio Grande do Sul, Brazil.
- E746** LB618 Neural Circuits and Olfactory Responses to Neurotropic Viruses in Trout. **F. Mancha, I. Salinas, M. Huertas.** Texas State University and University of New Mexico.
- E747** LB619 Astrocyte Activation is Increased in a Rat Endometriosis Model. **A. Flores-Bonilla, M.L. Cruz, C. Appleyard, G. Chompre.** Pontifical Catholic University of Puerto Rico, Puerto Rico and Ponce Health Sciences University, Puerto Rico.
- E748** LB620 Human Blood Serum Impacts Permeability of the Blood-Brain Barrier in a Sex- and Age-Dependent Manner. **D.H. Ho, E.A. Gay.** Tripler Army Medical Center and Research Triangle Institute.

E749 LB621 Effects of Intracerebroventricular Administration of Colony Stimulating Factor 1 Receptor Inhibitor on Microglia. **S. Kasihara, K. Shinohara, H. Tsutsui.** Department of Cardiovascular Medicine and Kyushu University Graduate School of Medical Sciences, Japan.

NEURAL CONTROL AND AUTONOMIC REGULATION

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL—WEST HALL B

E750 LB622 Effect of Treatment with Pyridostigmine on the Levels of IL-10, IFN- α and IL-1 β in the Bronchoalveolar Lavage (BAL) Supernatant in an Experimental Model of Acute Respiratory Distress Syndrome (ARDS) in Mice. **B.O. M. Lira, T.L. de Moraes, Y.G. Cavini, V.B. Borges, P. Choque, A. P.L. de Oliveira, F. Colombo.** Nove de Julho University, Brazil.

E751 LB623 Pharmacological activation of the cholinergic system attenuates lung inflammation in a Murine Model of acute respiratory distress syndrome. **P.N. B. Choque, R.d. P. Vieira, L. Ulloa, B. Lira, A. P.L. de Oliveira, F.M. Consolim- Colombo.** Universidade Nove de Julho, Brazil, Universidade Brasil, Brazil and Rutgers New Jersey Medical School.

E752 LB624 Gut microbiome and its potential role in obesity-induced neuropathy. **R. Bonomo, T. Cook, C. Gavini, V. Mansuy-Aubert.** Loyola University Chicago.

E753 LB625 Hypothalamic C2-domain protein (C2CD5) involved in protein trafficking and food intake. **C. Gavini, T. Cook, V. Mansuy-Aubert.** Loyola University Chicago.

E754 LB626 The Role of Vagal Free Fatty Acid Receptor 3 (FFAR3) in FMT Improvement of Glucose Homeostasis. **T. Cook, R. Bonomo, C. Gavini, L. Gautron, B. Layden, V. Mansuy-Aubert.** Loyola University Chicago, UT Southwestern and UIC College of Medicine.

E755 LB627 Acute Effects of Vaporized Nicotine Inhalation on Young Non-Smokers. **J.E. Gonzalez, S.R. Jewell, W.H. Cooke.** Michigan Technological University.

E756 LB628 Cholinergic Stimulation Modulates Kidney Cellular Immune Response Triggered by Myocardial Infarction in Rats. **C.T. d. A. Ribeiro, D.W. Granato, M.H. M. Porter, J.A. Silva Jr, H. Delle, M.C. Irigoyen, F.M. C. Colombo.** Universidade Nove de Julho (UNINOVE), Brazil and Universidade de São Paulo (USP), Brazil.

E757 LB629 Effects of CO₂ on Regional Cerebral Blood Flow Regulation During Lower-Body Negative Pressure. **S.F. Thrall, C. Green, K. Wynnyk, R. Brandt, T. Day.** Mount Royal University, Canada.

E758 LB630 Brainstem pre-sympathetic neurons contribute to irregular breathing patterns in volume overload heart failure. **C. Toledo, D.C. Andrade, R. Del Rio.** Pontificia Universidad Católica de Chile, Chile and Centro de Excelencia en Biomedicina de Magallanes (CEBIMA), Chile.

E759 LB631 The Role of Muscle Metaboreflex in the Reduced Blood Pressure Response to Exercise in Patients Living with HIV. **D. Peres, L.B. Almeida, N. Portela, E. Prodel, D.G. Martinez, M.C. Laterza, P. A.C. Mira.** Federal University of Juiz de Fora, Brazil and Fluminense Federal University, Brazil.

E760 LB632 The Exercise Pressor Reflex Evoked by Static Contraction is influenced by the Active Skeletal Muscle Mass in Decebrated Rats. **J.A. Estrada, G.P. Ducrocq, M.P. Kaufman.** Heart & Vascular Institute.

E761 LB633 Changes in Pain Threshold in the Early Stages of Type I Diabetes. **K. YBARBO, A-K. GROTTLE, Y. HUO, A. STONE.** UNIVERSITY OF TEXAS AT AUSTIN.

E762 LB634 Exaggerated Pressor Response to Intermittent Contraction in Type 1 Diabetic Rats. **A-K. Grotle, Y. Huo, K.M. Ybarbo, A.J. Stone.** The University of Texas at Austin.

E763 LB635 The Acute Effect of Hyperglycemia on the Exercise Pressor Reflex. **Y. Huo, A-K. Grotle, K.M. Ybarbo, A.J. Stone.** University Of Texas At Austin.

E764 LB636 Excessive Dietary Salt Promotes Aortic Stiffness In 2K1C Hypertension. **L. DeLalio, P. Katayama, S. Hahn, A. Straub, M. Wenner, W. Farquhar, S. Stocker.** University of Pittsburgh and University of Delaware.

E765 LB637 Age-associated Alterations of Microglia in the Rostral Ventrolateral Medulla of F344 rats. **S. Balivada, A. Artalejo, R.J. Ortiz, M.J. Kenney.** The University of Texas at El Paso.

E766 LB638 Cardiovascular Responses to the Exercise Pressor Reflex in Pediatric Heart Transplant Recipients. **C.R. Blushke, N.G. Boyes, D.S. Lahti, K. Kosokowsky, D. Marciniuk, S.J. Butcher, M.C. Erlandson, K.D. Wright, S. Pharis, C. Pockett, C.R. Tomczak.** University of Saskatchewan, Canada and University of Regina, Canada.

E767 LB639 Cardiovascular Reflexes Control Hemodynamic Responses During LPS-induced Systemic Inflammation in Conscious Rats. **M.R. Amorim, J.L. de Deus, R.A. Cazuza, C.M. D. Mota, L.E. V. da Silva, G.S. Borges, M.E. Batalhão, E.C. Cárnio, L.G. S. Branco.** University of São Paulo, Brazil.

E768 LB640 Role of TACE in LPS-induced Production of Soluble Tumor Necrosis Factor- α in Astrocytes. **B. Bell, Y. Yu, R. Felder, S-G. Wei.** The University of Iowa.

E769 LB641 Neuro-Physio Quanta Coherence-Congruence Energy Regulation using Meditation for Exploring Etiology of Chronic Pain. **G.P. Einstein, M.S. Rahman, C.M. Konyk, O.L. Tulp.** USAT Montserrat, Montserrat, Einstein Medical Institute and University of Health & Humanities, Virgin Islands (British).

E770 LB642 The Effects of Acute Hyperglycemia on Cardiac Autonomic Balance Between Sexes. **A. Skalk, G. Saran, Z. Rampuri, J. E. Soriano, J. Lorida, T. Joki, S. Hewitt, T.A. Day.** Mount Royal University, Canada.

PHYSIOLOGICAL GENOMICS

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL—WEST HALL B

E771 LB643 Effects of Paracrine and Intracellular Angiotensin II on Protein Kinase C, MAP kinase ERK1/2, and Nuclear Factor- κ B Signaling Responses in Mouse Glomerular Mesangial cells. **A. P.O. Leite, X. C. Li, J. L. Zhuo.** Universidade Federal de São Paulo, Brazil and University of Mississippi Medical Center.

MUSCLE BIOLOGY

TUES. 9:00 AM—CONVENTION CENTER, EXHIBIT HALL—WEST HALL B

E772 LB644 Aquaporin transport of hydrogen peroxide in skeletal muscle. **C.A. Staunton, A. Vasilaki, A. McArdle, M.J. Jackson, R. Barrett-Jolley.** University of Liverpool, United Kingdom.

E773 LB645 Human Skeletal Muscle-on-a-Chip. **A.R. Naik, S. Pernal, K.T. Lewis, Y. Wu, H. Wu, N.J. Carruthers, P. Stemmer, B.P. Jena.** Wayne State University, University of Michigan and Hong Kong University, People's Republic of China.

E774 LB646 Influence of Heat Stress on Monocyte Chemoattractant Protein-1 Expression by Satellite Cells after Rat Skeletal Muscle Injury. **M. Sugiyama, M. Kawashima, M. Miyakawa, K. Taniguchi, T. Arakawa.** Kobe University, Japan.

- E775** LB647 Fidelity of Reinnervation Modulates Susceptibility to Aging Muscle Impact and Frailty in Elderly Women. **V. Sonjak, K. Jacob, J. Morais, S. Spendiff, C. Spake, M. Rivera-Zengotita, T. Taivassalo, S. Chevalier, R. Hepple.** McGill University, Canada, University of Ottawa, Canada, Brown University and University of Florida.
- E776** LB648 Neuromuscular Junction Plasticity Confers Atrophy Resilience of Aging Muscle. **S.S. Burke, A. Fenton, Y. Goddard, M-E. Anagnostou, R.T. Hepple.** University of Florida.
- E777** LB649 Protective roles of autophagy in sepsis-induced skeletal muscle dysfunction, metabolic derangements and mortality. **J-P. Leduc-Gaudet, K. Miguez, J. Faitg, O. Reynaud, D. Mayaki, L. Huck, G. Gousspillou, S.N. Hussain.** Département de Sciences de l'activité physique, Faculté des Sciences, UQAM, Canada, Meakins-Christie Laboratories, Department of Medicine and Division of Experimental Medicine and McGill University, Canada.
- E778** LB650 Parkin overexpression attenuates muscle atrophy and rescues mitochondrial morphology in sepsis-induced skeletal muscle dysfunction. **J-P. Leduc-Gaudet, F.E. Broering, D. Mayaki, S.N. Hussain, G. Gousspillou.** Département de Sciences de l'activité physique, Faculté des Sciences, UQAM, Canada, Meakins-Christie Laboratories, Department of Medicine and Division of Experimental Medicine and McGill University, Canada.
- E779** LB651 Nitrate increases in skeletal muscle peak power do not involve changes in sarcomeric protein phosphorylation and require whole-body physiological pathways. **R. Kumar, D. Hahn, R. Kelley, L. Ferreira.** University of Florida.
- E780** LB652 The Influence of GATOR1 Sub Complex NPRL2 on Anabolic Signaling During Insulin Resistance in Rats. **C. O'Reilly, N. Greene, M. Wiggs, J. Fluckey.** Texas A&M University, University of Arkansas and The University of Texas at Tyler.
- E781** LB653 Interleukin-8 is Released from Human Pancreatic Tumor and Stromal Cells, and Causative in Skeletal Muscle Atrophy. **A.R. Judge, C.C. Callaway, A. Delitto, R.L. Nosacka, R. Patel, D. Delitto, J.G. Trevino, S. Judge.** University of Florida.
- E782** LB654 Effect of Beta-hydroxybutyrate on Myoblast Proliferation and Differentiation. **J.R. Melanson, Z.E. Olsen, C.M. Walton, B.T. Bikman, D.M. Thomson.** Brigham Young University.
- E783** LB655 The Characterization of Circular and Longitudinal Uterine Smooth Muscle Function from Non-Pregnant and Late-Pregnant Rats. **R.E. Mejia, M. Leovic, B. Hoxha, E. Ion, J. Vallejo-Elias, C. Jones, J. Struthers, D.M. Eckman.** Midwestern University and University of Arizona.
- E784** LB656 3D mitochondrial network formation during postnatal skeletal muscle development of mice. **Y. Kim, E. Lindberg, C.K. Bleck, B. Glancy.** NHLBI/NIH and NHLBI/NIAMS/NIH.
- E785** LB657 Skeletal Muscle Anabolic Response Following Incubation with Protein Kinase C Activator OAG. **J.W. Deaver, C.L. O'Reilly, K.M. Cross, J.D. Fluckey.** Texas A&M University.
- E786** LB658 Astragaloside IV Increases Phosphorylation of GSK-3 β And S6K1 via The AKT Pathway in C2C12 Muscle Cells. **K. Tuohy, M. Abboud, M. Sitnick.** Montclair State University.

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