



## APS California Chapter Annual Conference Symposium

Friday November 4<sup>th</sup>, 2022



Medical Research Laboratory Building, The Lundquist Institute for Biomedical  
Innovation at Harbor-UCLA Medical Center, Torrance, CA

|       |       |   |
|-------|-------|---|
| 8:00  | 8:45  | <b>Registration and Check-In</b>  |
| 8:45  | 9:00  | <b>Welcoming Remarks</b><br>Chapter President, Martha E O'Donnell, UC Davis<br>Harry B Rossiter PhD and Denise Al Alam PhD, The Lundquist Institute                         |
| 9:00  | 10:00 | <b>Free Communications 1: Cardiopulmonary Development, Aging and Disease</b><br><b>Chairs: Soula Danopoulos and Rudy Ortiz</b>  |
| 9:00  | 9:10  | <b>Nick Tiller.</b> <i>The Lundquist Institute at Harbor-UCLA.</i> Dynamic Airway Function During Exercise In COPD Assessed Via Impulse Oscillometry                        |
| 9:10  | 9:20  | <b>Yujuan Su.</b> <i>UC San Diego.</i> Brainstem Dbh+ Neurons Control Chronic Allergen-Induced Airway Hyperreactivity   |
| 9:20  | 9:30  | <b>Randa Belgacemi.</b> <i>The Lundquist Institute at Harbor-UCLA.</i> Stage-Dependent FGF Signaling Trigger Mesenchymal Cell Differentiation During Human Lung Development |
| 9:30  | 9:40  | <b>Wanju Gu.</b> <i>UC San Diego.</i> Distinct Genetic Markers Associated with COVID-19 Severity in Latinx Populations from the Americas                                    |
| 9:40  | 9:50  | <b>Dora Mendez.</b> <i>UC Merced.</i> Exogenous Thyroxine Increases GLUT4 Translocation and Improves Cardiac Metabolism in Insulin Resistant OLETF Rats                     |
| 9:50  | 10:00 | <b>Maartje Westhoff.</b> <i>UC Davis.</i> Deficits in Endosomal Recycling Contribute to $\beta$ -Adrenergic Hypo-Responsivity in the Aging Heart                            |
| 10:00 | 10:30 | <b>Coffee Break</b>   |



**MGC**  
DIAGNOSTICS®

Headquartered in Saint Paul, Minnesota, USA, MGC Diagnostics Corporation is a global medical technology company dedicated to cardiorespiratory health solutions

|       |       |   |
|-------|-------|---|
| 10:30 | 11:30 | <b>Keynote Address – Sponsored by MGC Diagnostics</b><br>Luis Fernando Santana, PhD, FAHA<br><i>UC Davis</i><br>Embracing Diversity: How Biological Noise Tunes the Cardiovascular System |
| 11:30 | 12:30 | <b>Lunch</b>  |

|              |             |  |
|--------------|-------------|--|
| <b>12:30</b> | <b>1:00</b> | <b>Business Meeting</b><br>Including words from our sponsors   |
| <b>1:00</b>  | <b>1:30</b> | <b>Free Communications 2: Injury, Inflammation and Immune Response</b><br><b>Chairs: Mark Frey and Nicholas Jendzjowsky</b>  |
| 1:00         | 1:10        | <b>Ethan Garcia.</b> <i>UC San Francisco.</i> Tissue-Specific Mitochondrial HIGD1C Promotes Oxygen Sensitivity of Carotid Body Chemoreceptors                                      |
| 1:10         | 1:20        | <b>Pritha Chatterjee.</b> <i>UC Riverside.</i> Role of Autoimmune Susceptibility, Ptpn2, in Mediating Host-Microbiome Interaction  |
| 1:20         | 1:30        | <b>Vini Canale.</b> <i>UC Riverside.</i> PTPN2 is a Critical Regulator of Ileal Paneth Cell Viability and Function in Mice   |
| <b>1:30</b>  | <b>2:00</b> | <b>Free Communications 3: Behavioral and Metabolic Disorders</b><br><b>Chairs: Erica Heinrich and Carrie Ferguson</b>  |
| 1:30         | 1:40        | <b>Elena Kozlova.</b> <i>UC Riverside.</i> Behavior and Reduced Hypothalamic Oxytocin Content Produced By Perinatal Exposure To DE-71  |
| 1:40         | 1:50        | <b>Jessica Wilson.</b> <i>UC Merced.</i> Cannabidiol Attenuates Multiple Cluster Factor Conditions of Metabolic Syndrome   |
| 1:50         | 2:00        | <b>Bailey Sanchez.</b> <i>UC Merced.</i> Amino Acid, Monosaccharide, and Nucleotide Metabolism in Human Kidney Cells are Disrupted Following Human Adenovirus Serotype 5 Infection |
| <b>2:00</b>  | <b>2:30</b> | <b>Coffee Break</b>  |
| <b>2:30</b>  | <b>3:30</b> | <b>Trainee Career &amp; Mentoring Session</b>  |
| <b>3:30</b>  | <b>4:30</b> | <b>Lightning Talks – Student and Trainee Poster Competition</b>  |
| <b>4:30</b>  | <b>5:45</b> | <b>Poster Presentations</b>  |
| <b>5:45</b>  | <b>6:00</b> | <b>Presentation of Awards</b>  |
| <b>6:00</b>  |             | <b>Close</b>   |

PTO

### Lightning Talks – Student and Trainee Poster Competition

|                                 |   |  |
|---------------------------------|---|--|
| <b>Diane Aguilar</b>            | <i>The Lundquist Institute at Harbor-UCLA</i> | Investigating Nociceptor Pathogen Sensing Capabilities   |
| <b>Maximillian Denys</b>        | <i>UC Riverside</i>                           | Maternal Probiotic Therapy Protects Against DE-71-Induced Neurodevelopmental Delays in a Sex-Dependent Manner  |
| <b>Tyler Hilman</b>             | <i>Loma Linda University</i>                  | Caspase-9 Expression in the Cortex of a Novel Rodent Model for Preterm Hypoxic-Ischemic Encephalopathy   |
| <b>Caroline Cherry</b>          | <i>The Lundquist Institute at Harbor-UCLA</i> | Altered Differentiation in Upper Airway Epithelium in Trisomy 21   |
| <b>Eira Jardines</b>            | <i>UC Merced</i>                              | Angiotensin Receptor Blocker Attenuates Elevated Arterial Pressure and Reduces Body Mass in OLETF Rats Fed a High Cholesterol Diet                                   |
| <b>Hillmin Lei</b>              | <i>UC Riverside</i>                           | Loss of PTPN2 Activity Alters Iron Handling Gene Expression in IBD Patients and Causes Iron Deficiency in Mice   |
| <b>Andrew Frauenpreis</b>       | <i>The Lundquist Institute at Harbor-UCLA</i> | Endothelial Differentiation and Function in Trisomy 21   |
| <b>Mitchell Kong</b>            | <i>UC San Diego</i>                           | Identification of a Putatively Adaptive Promoter Variant in PRKAA1 in Andean Highlanders   |
| <b>Nicholas Iwakoshi</b>        | <i>Loma Linda University</i>                  | Heart Rate Variability (HRV) Analysis to Detect Physiological Changes of Mice Exposed to Hypergravity  |
| <b>Crystal Luna</b>             | <i>UC Riverside</i>                           | Effects of Probiotic <i>L.reuteri</i> Therapy on Social Behavior in An Environmental Autism Model  |
| <b>Jeff Moore</b>               | <i>The Lundquist Institute at Harbor-UCLA</i> | Distinguishing Increased Adiposity and/or Aerobic Deconditioning as Moderators of Low VO <sub>2</sub> peak in Obese Men  |
| <b>Taylor Voelker</b>           | <i>UC Davis</i>                               | PI(4,5)P <sub>2</sub> Regulation of CaV1.2 L-Type Ca <sup>2+</sup> Channel via AngII signaling in the Heart  |
| <b>Melissa Crawford</b>         | <i>UC Riverside</i>                           | Intranasal Exposure to Hog Dust Extract Promotes Endotoxemia and Increases Gene Expression of TNF- $\alpha$ and Secretory Epithelial Cell Markers in Mouse Intestine |
| <b>Imad El Alam</b>             | <i>The Lundquist Institute at Harbor-UCLA</i> | Effect of Cannabinoids and Nicotine on Prenatal Human Lung   |
| <b>Silvia Garcia del Villar</b> | <i>UC Davis</i>                               | Tight Regulation of BIN1 is Essential for $\beta$ -adrenergic Responsivity in the Myocardium   |
| <b>Clara Berdasco</b>           | <i>UC Riverside</i>                           | Inflammation in a Mouse Model of Gulf War Illness  |

|    |                                 |   |  |
|----|---------------------------------|---|--|
|    | <b>Posters</b>                  |   |  |
| 1  | <b>Diane Aguilar</b>            | <i>The Lundquist Institute at Harbor-UCLA</i> | Investigating Nociceptor Pathogen Sensing Capabilities   |
| 2  | <b>Maximillian Denys</b>        | <i>UC Riverside</i>                           | Maternal Probiotic Therapy Protects Against DE-71-Induced Neurodevelopmental Delays in a Sex-Dependent Manner  |
| 3  | <b>Tyler Hilman</b>             | <i>Loma Linda University</i>                  | Caspase-9 Expression in the Cortex of a Novel Rodent Model for Preterm Hypoxic-Ischemic Encephalopathy   |
| 4  | <b>Caroline Cherry</b>          | <i>The Lundquist Institute at Harbor-UCLA</i> | Altered Differentiation in Upper Airway Epithelium in Trisomy 21   |
| 5  | <b>Eira Jardines</b>            | <i>UC Merced</i>                              | Angiotensin Receptor Blocker Attenuates Elevated Arterial Pressure and Reduces Body Mass in OLETF Rats Fed a High Cholesterol Diet                                   |
| 6  | <b>Hillmin Lei</b>              | <i>UC Riverside</i>                           | Loss of PTPN2 Activity Alters Iron Handling Gene Expression in IBD Patients and Causes Iron Deficiency in Mice   |
| 7  | <b>Andrew Frauenpreis</b>       | <i>The Lundquist Institute at Harbor-UCLA</i> | Endothelial Differentiation and Function in Trisomy 21   |
| 8  | <b>Mitchell Kong</b>            | <i>UC San Diego</i>                           | Identification of a Putatively Adaptive Promoter Variant in PRKAA1 in Andean Highlanders   |
| 9  | <b>Nicholas Iwakoshi</b>        | <i>Loma Linda University</i>                  | Heart Rate Variability (HRV) Analysis to Detect Physiological Changes of Mice Exposed to Hypergravity  |
| 10 | <b>Crystal Luna</b>             | <i>UC Riverside</i>                           | Effects of Probiotic <i>L.reuteri</i> Therapy on Social Behavior in An Environmental Autism Model  |
| 11 | <b>Jeff Moore</b>               | <i>The Lundquist Institute at Harbor-UCLA</i> | Distinguishing Increased Adiposity and/or Aerobic Deconditioning as Moderators of Low VO <sub>2</sub> peak in Obese Men  |
| 12 | <b>Taylor Voelker</b>           | <i>UC Davis</i>                               | PI(4,5)P <sub>2</sub> Regulation of Ca <sub>v</sub> 1.2 L-Type Ca <sup>2+</sup> Channel via AngII signaling in the Heart   |
| 13 | <b>Meli'sa Crawford</b>         | <i>UC Riverside</i>                           | Intranasal Exposure to Hog Dust Extract Promotes Endotoxemia and Increases Gene Expression of TNF- $\alpha$ and Secretory Epithelial Cell Markers in Mouse Intestine |
| 14 | <b>Imad El Alam</b>             | <i>The Lundquist Institute at Harbor-UCLA</i> | Effect of Cannabinoids and Nicotine on Prenatal Human Lung   |
| 15 | <b>Silvia Garcia del Villar</b> | <i>UC Davis</i>                               | Tight Regulation of BIN1 is Essential for $\beta$ -adrenergic Responsivity in the Myocardium   |
| 16 | <b>Clara Berdasco</b>           | <i>UC Riverside</i>                           | Inflammation in a Mouse Model of Gulf War Illness  |
| 17 | <b>Carolyn Oudiz</b>            | <i>CSU Dominguez Hills</i>                    | Physical Activity and Body Mass Index During the COVID-19 Pandemic   |
| 18 | <b>Andy Chang</b>               | <i>UC San Francisco</i>                       | Therapeutic Potential of Modulating Carotid Body Activity Through an Ectopic Olfactory Receptor  |
| 19 | <b>Suzzy Emily Campero</b>      | <i>UC Merced</i>                              | HPRT 1 Expression Reduction Trend of 1.37% in Exenatide Treated OLETF Rats   |
| 20 | <b>Erica Heinrich</b>           | <i>UC Riverside</i>                           | Inflammation and Immune Function During High Altitude Exposure   |
| 21 | <b>Esteban Moya</b>             | <i>UC San Diego</i>                           | Reduced Hypoxic Ventilatory and Heart Rate Responses to Hypoxia in Post-versus Premenopausal Tibetan Women in Mustang, Nepal   |