PROGRAM SCHEDULE

Friday

10:00 AM Registration/Poster Setup

10:45 - 11:00 AM Welcome to the Meeting
Jon Harrison, AZPS President

11:00 AM - Noon Session 1: Metabolism and Muscle Physiology
Chairs: Tobias Riede (MWU) and Zack Graham (ASU)

11:00 AM Siwoo Jeong (NAU)
The different ratio of muscle stiffness to muscle force after active shortening at different velocities

11:15 AM Savannah Berry (NAU)
Sex Differences in Mechanisms to Mitigate Oxidative Stress Levels in Response to an Exercise Intervention

11:30 AM Ethan Ostrom (NAU)
Improvements in aerobic fitness predict responses to change in redox capacity in men but not women

11:45 AM Madeleine Ostwald (ASU)
Sociality Confers Energetic Savings in a Large Carpenter Bee

Noon - 1:00 PM Lunch with Vendors and Raffle

1:00 PM - 1:45 PM One Minute Poster Presentations

1:45 PM - 3:15 PM Session 2: Cardiovascular Physiology
Chairs: Paulo Pires (UA COM-Tucson) and Ike Chinyere (UA COM-Tucson)

1:45 PM Megan Sylvester (UA COM-Tucson)
Exploring Sex Differences In Immune Cell Profiles Of Male, Premenopausal, And Postmenopausal Female Mice To Understand Susceptibility To Immune Mediated Hypertension

2:00 PM Bobbie Garvin (UA COM-Phoenix)
Transient Angiotensin Converting Enzyme Inhibition in Hypertensive Rats Homogenizes the Cardiac Fibroblast Population Supporting a Less Fibrogenic Transcriptome

2:15 PM Matthew Klass (UA COM-Tucson)
Mutation-specific calcium dysregulation in troponin t-associated hypertrophic cardiomyopathy

2:30 PM Tala Curry (UA COM-Phoenix/MWU)
Role of Caveolin-1 in a Mouse Model of Marfan Syndrome-Associated Aortic Aneurysm
2:45 PM Nicholas Talley (MWU)
  Understanding the Role of Inducible Nitric Oxide (iNOS) on the
  progression of Marfan Syndrome Associated Aortic Aneurysms

3:00 PM Lakshmi Madhavpeddi (UA COM-Phoenix)
  Impact of Prenatal Dexamethasone on Adult Cardiovascular
  Autonomic Regulation

3:15 PM - 3:30 PM  Break

3:30 PM - 4:45 PM  Session 3: Comparative and Environmental Physiology
  Chairs: Kiisa Nishikawa (NAU) and Stav Talal (ASU)

  3:30 PM Anthony Basile (ASU)
    Under Krogh’s Umbrella: Comparative Physiology in a New Age.

  3:45 PM Jacob Youngblood (ASU)
    Outbreaking locusts thermoregulate to maximize digestive
    performance

  4:00 PM Trevor Fox (ASU)
    Quantifying unidirectional ventilation in tenebrionid beetles

  4:15 PM Adrian Fisher II (ASU)
    A widely-used fungicide produces symptoms of Colony Collapse
    Disorder in honey bees (Apis mellifera)

  4:30 PM Alec Oliva (MWU)
    Canine-based risk factors drive the spread of RMSF in Arizona and
    Northern Mexico

4:45 PM - 5:00 PM  Break

5:00 PM - 6:00 PM  Plenary Speaker
  Of flies and people: adaptation to high-altitude hypoxia
  Gabriel Haddad, MD, Rady Children’s Hospital, San Diego

6:00 PM - 7:30 PM  Dinner and Trainee Networking/Career Development
  Session (organized by Bobbie Garvin)

7:30 PM - 9:30 PM  Poster Session
Saturday

8:00 AM - 8:30 AM  **Continental Breakfast**

8:30 AM - 9:45 AM  **Session 4: The Charles Tipton Undergraduate Symposium**

Chairs: Haiwei Gu (ASU) and Karina Ahmadizadeh (MWU)

8:30 AM Trevor Wendt (UA COM-Phoenix)
  *S1PR-1 Activation Protects Against Ischemia-Induced Inflammation and Dysfunction in Human Brain Microvascular Endothelial Cells*

8:40 AM Sarah Livingston (ASU)
  *Nutraceuticals Derived From Pomegranate Selectively Enhance Vitamin D Receptor Signaling To Amplify Key Vitamin D Target Genes*

8:50 AM Amal Altaf (UA COM-Phoenix)
  *Unlocking Signaling Mechanisms That Underlie Persistent Anti-Fibrotic Effects of Transient ACE Inhibition*

9:00 AM Anthony Albrecht (UA COM-Phoenix)
  *S1PR Ligand Protects Against Hypoxia plus Glucose Deprivation-Induced Morphological Changes in Human Brain Vascular Smooth Muscle*

9:10 AM Brittney Childress (UA COM-Tucson)
  *Club Cell Secretory Protein-16 Deficiency Leads to a Predominately Neutrophilic Airway Inflammatory Response in a Mouse Model of Asthma*

9:20 AM Cassidy Turner (ASU)
  *Ovarian Cancer Detection Using Targeted Plasma Metabolomics*

9:30 AM Jack Short (GCU)
  *Effects of Stress and Exercise on Heart Rate Variability*

9:45 AM - 10:00 AM  **Break**

10:00 AM - 11:00 AM  **Session 5: Clinical and Respiratory Physiology**

Chairs: Rakhad Alwari (GCU) and Reem Farad (UA COM-Phoenix)

10:00 AM Stephanie Bruggink (UA COM-Tucson)
  *Head-out plethysmography applied to study the role of obesity and muscarinic signaling in asthma*

10:15 AM Paniz Jasbi (ASU)
  *A Brain Tissue Metabolomic Signature Discloses Alzheimer's Disease Post-Mortem*

10:30 AM Charles Schaefer (MWU)
  *Male Sprague Dawley Rats use Deep Breaths in their Ultrasonic Vocal Behavior.*
10:45 AM Kristen Bolte (MWU)  
*Characterizing the Action of Arginine Vasopressin at Hypoglossal Motoneurons In Neonatal Mice*

11:00 AM - 11:15 AM **Break**

11:15 AM - 12:15 PM **Arizona Distinguished Physiologist Lecture**  
‘If you don’t know where you are going, you’ll end up someplace else.’ - How Yogi Berra’s words forecast my career in physiology  
Ralph Fregosi, PhD, (UA COM-Tucson)

12:15 PM - 2:00 PM **Lunch with Business Meeting and Awards**
**Poster Session**

*Note:* In addition to presenting their poster during the Poster Session, each poster presenter gets one minute (without slides) to present the primary question and/or result of their poster during the One Minute Poster Presentation Session.

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<td>1</td>
<td>Andrew Alamban</td>
<td>UA COM-Tucson</td>
<td>Cx37-13k fails to reproduce phenotypic effects of Cx37 in rat insulinoma cells but alters Cx37’s hemichannel function when co-expressed</td>
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<td>Jose Ek-Vitorin</td>
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<td>A mutant mimicking an ischemic preconditioned phospho-form of Cx43 lacks Vj-gating</td>
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<td>3</td>
<td>Brikena Hoxha</td>
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<td>Morgan Nelson</td>
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<td>Evaluation of an organometallic complex on the development of cardiovascular disease risk following a 10-week high-fat diet</td>
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<td>Kathleen Casey</td>
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<td>The Effect of Exercise PreConditioning on VO2Peak and Lean Mass in Breast Cancer Patients Treated with Anthracyclines- A Preliminary Analyses</td>
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<td>Adam Copeland</td>
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<td>Correlation between heart rate variability and obesity</td>
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<td>Charis Courtney</td>
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<td>Heart rate variability: Physiological effects of anxiety and depression on autonomic nervous system</td>
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<td>Breana Schiete</td>
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<td>Nafisa Jadavji</td>
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<td>The role of nutrition on recovery after ischemic stroke using an aged mouse model</td>
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<td>Ryan Eghlimi</td>
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<td>Triple Negative Breast Cancer Detection Using LC-MS/MS Targeted Lipidomics</td>
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<td>12</td>
<td>Layla Al-Nakkash</td>
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<td>Dietary genistein and exercise offer sex-dependent benefits to jejunum function in a model of diet-induced diabetic obesity.</td>
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<td>Alex Mohr</td>
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<td>Assessing the potential of a soil-derived compound for the prevention of liver toxemia and protein glycation in rats fed a high-fat diet</td>
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<td>14</td>
<td>Karen Sweazea</td>
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<td>Effects of urbanization on morphology and nutritional physiology of Gambel’s Quail, Callipepla gambelii</td>
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<td>Karina Ahmadizadeh</td>
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<td>Expression patterns of CRF-family peptides in the zebra finch brain</td>
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<td>Database Assisted Globally Optimized Targeted Mass Spectrometry (dGOT-MS): Broad and Reliable Metabolomics Analysis with Enhanced Identification</td>
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<td>High carbohydrate diets increase respiratory quotients above 1 in locusts</td>
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<td>Testing the limits: Physiological responses of honeybees (Apis mellifera) during flight in variable-density gases</td>
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<td>Thomas Huck</td>
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<td>Anaissa Ruiz</td>
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<td>Myosin Heavy Chain Isoform mRNA Expression in Low and High Capacity Running Rats</td>
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<td>21</td>
<td>Zack Graham</td>
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<td>The Offense and Defense of a Regenerated Weapon</td>
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<td>Dhruv Mishra</td>
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<td>X-ray diffraction analysis of nanometer-scale sarcomere structure before and after active and passive stretch in skinned fiber bundles of skeletal muscles from wild type and mdm mice.</td>
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<td>Logan Kasper</td>
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<td>Preoperative patient reported outcome measures are predictive of postoperative outcome at 2 years following Unicompartmental Knee Arthroplasty</td>
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<td>GIRK channels contribute to modulation of XII motoneuron excitability in neonatal mice in vitro</td>
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<td>Hailang He</td>
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<td>Metabolic profiling reveals attenuated mitochondrial function and enhanced glycolysis induced by BDE-47 in PC12 cells</td>
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<td>27</td>
<td>Charles Vo</td>
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<td>Characterization of effector ion channels that mediate excitatory cholinergic modulation of XII motoneurons in neonatal mice in vitro</td>
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<td>28</td>
<td>Reem Faraj</td>
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<td>A Novel Role for SAMD4A in Endothelial Cell Barrier Regulation in Response to Simvastatin</td>
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