The Third Annual Meeting of the Arizona Physiological Society

The Department of Physiology Faculty of the Arizona College of Osteopathic Medicine of Midwestern University (MU) located in Glendale, Arizona hosted the 3rd annual meeting of the Arizona Physiological Society during November 5 and 6 of 2010. There were 84 members of the Society from five university campuses that registered for the meeting which represented 85% of the total membership. Of those in attendance, 36% were Regular Members, 36% were Graduate Student Members, 17% were Post-Doctoral Trainees, and 11% were Undergraduate Student Members. Funds from the American Physiological Society, the various universities and the NIH Training Grant awarded to Dr. Janis Burt (UA-TUS) help provide the financial support necessary to support the meeting.

After extending greetings to those in attendance for the Graduate Student oral presentations and before chairing the session, Dr. Johanna Vallejo (MU) introduced the session and herself by presenting “Insulin resistance and caveolae membrane microdomains: Is there a connection? Subsequently, nine graduate students presented papers (Figure 1) on a myriad of interesting topics that created considerable interest and discussion by the audience. Individuals selected for awards and the titles of their presentations can be found in Table 1.

Following the oral presentations and in an adjacent room, the Graduate Student Poster Session was held with 18 individuals making presentations (Figure 2). With the aid of delicious refreshments, interesting and lively discussions were held on multiple subjects throughout the afternoon. Because of the quality of the presentations, judges had difficult decisions to make;
however, they were up to the task and the names of the award winners and their poster titles have been listed in Table I.

During the poster session, a tour of the Arizona College of Osteopathic Medicine was led by Dr. Chad Carroll (MU) for undergraduates students in Arizona interested in a medical career. Because of faulty promotion by the Society, it was not as effective as envisioned.

Later, President Stan Lindstedt (NAU) chaired the APS Keynote Lecture which featured Professor James Weiss from the David Geffen School of Medicine at the University of California at Los Angeles (Figure 3). He is also Chief of the Division of Cardiology and Director, Cardiovascular Research Laboratory at UCLA. After being introduced by Dr. Burt, he presented a lecture-discussion session on “Cardiac ischemia/reperfusion injury: The good, the bad, and the ugly” which not only interested, stimulated and educated the membership, it created an extensive discussion on the issues that had to be resolved. Following the lecture, the members attended a nearby reception (Figures 3 and 4), whose food, spirits and fellowship were enjoyed by all well into the night.

Saturday morning began with a Featured Topic entitled Topics in Lung Physiology that was chaired by President Elect, Dr. Scott Boitano (UA-TUS) who spoke on Airway Remodeling in Disease. He was followed by Dr. Ralph Fregosi (UA-TUS) whose presentation was entitled Understanding Apnea. Both talks were informative, well received and extensively discussed by the audience.

The morning program also featured a poster session of presentations (Figure 2) by 14 Regular Members and Post-Doctoral Trainees and 7 Undergraduate Student Members. Their titles
ranged from Does genetic variation in titin affect mouse locomotion (C. Pace, NAU), to Adrenal demedullation abolishes hypoxemia-induced catecholamine suppression of glucose stimulation insulin secretion in fetal sheep (D. Yates, UA-TUS), to Weight loss and adipokine changes in mountaineers at 5300 m (T. Broderick, MU). Also included in Table 1 are the names and titles of the posters by undergraduate students.

After the break, President Stan Lindstedt introduced Dr. Bill Dantzler (UA-TUS) for the Arizona Distinguished Lecture (Figure 5) which was entitled Contributions of the comparative approach to the understanding of renal physiology. As expected, and verified by the evaluation forms, the presentation was interesting, informative, and a major highlight of the meeting.

The afternoon session began with a 30-minute business meeting chaired by our President that included the recognition of Dr. Layla Al-Nakkash (MU) for organizing the meeting and of Mrs. Linda Baughn (UA) for her administrative efforts in making the meeting a success. He subsequently introduced the new officers [President-Elect: Scott Boitano (UA-TUS); Councillor, Post Doctoral Trainees: Dr. Ted Uyeno (NAU); Councillor, Graduate Student Members: Nathaniel Hart (UA-TUS)], and announced that the title Councillor had replaced the term, representative, within the Bylaws concerning the composition of the Executive Committee. He then had judges present awards to undergraduate and graduate students (Figure 6 and Table 1). A discussion then ensued concerning the hosting and location of the 2011 meeting which was not resolved.

The closing session of the meeting was chaired by Dr. Michael Quinlan (MU) which consisted of 9 integrated oral presentations by Regular Members and Post-Doctoral Trainees. Select titles of their presentations were, Is titin a winding filament (K. Nishikawa, NAU);
Repetitive motion strain (RMS) induces human fibroblast (HF) sensitivity to nitric oxide (NO) in vitro: Potential roles of myofascial release (MFR) in wound healing (T. Coa, UA-PHX), and Critical role of the transient activation of p38 MAPK in the etiology of skeletal muscle insulin resistance caused by low-level in vitro oxidant stress (M, K. Diamond-Stanic, UA). Like the previous oral presentations, the topics were interesting and stimulated much discussion. At approximately 4:45 PM, Chairman Quinlan adjourned the meeting and reminded those in attendance to return their evaluation forms to an AzPS representative.

The majority of the questionnaires were complimentary and supportive of continuing the current format. As noted, the highlight of the meeting was Dr. Danzler’s lecture. However, many wanted future meetings in Phoenix and Flagstaff; a session Chair who keep on schedule; an earlier ending time for the reception; no concurrent sessions; re-examination of the poster presentation format, and a change so that post-doctoral trainees could receive awards.

Charles M. Tipton
FIGURES

Figure 1
Figure 6
FIGURE CAPTIONS OF THE AzPS MEETING

Figure 1: A graduate student oral presentation by Sarah Kuzmiak (ASU).

Figure 2: A poster session at the AzPS meeting that includes (left) Dr. Chad Carroll (MU), (center) Laura Wright (UA) and (center-rear) Dr. Richard Coast (NAU).

Figure 3: At the reception, (right) Keynote Speaker: Dr. James Weiss and (left) Dr. Christos Katsanos (ASU).

Figure 4: At the reception (Left to right) Dr. Taben Hale (UA-PHX), Dr. Christos Katsanos (ASU), Dr. Rayna Gonzales (UA-PHX) and Dr. Tom Broderick (MU).

Figure 5: Award winners: (Left to right) Stoyan Angelov, Cara Sherwood, Krysta Powers, John Kanady, Sarah Kuzmiak, Mateja Lekic, Lauren Biwer, and Devin O’Connor. Refer to Table 1 for affiliations, titles, and award placing.

Figure 6: Recognition of the Arizona Distinguished Lecturer. (Left to right) Recipient, Dr. Bill Dantzler (UA) and President Stan Lindstedt (NAU).

Table I: Undergraduate and Graduate Student Award Winners at the Arizona Physiological Society Meeting

**Oral Presentations: Graduate Students**
First Prize: Jennifer Fang  UA  CONNEXIN40-DEFICIENT MICE REVEAL ANGIOTENSIN II-DEPENDENT AND –INDEPENDENT MECHANISMS OF POST-ISCHEMIC TISSUE SURVIVAL AND RECOVERY

Second Prize: John Kanady  UA  EARLY LYMPHATIC DEVELOPMENTAL CONSEQUENCES IN MICE LACKING CONNEXIN 37 AND CONNEXIN 43

Third Prize: Sarah Kuzmiak  ASU  PYRUVATE SPARING BY FATTY ACID AND GLUTAMATE IN SPARROW SKELETAL MUSCLE MITOCHONDRIA

**Poster Presentations: Undergraduate Students**

First Prize: Devin O’Connor  UA-PHX  ENDOTOXIN- OR HYPOXIC- INDUCED TLR4 EXPRESSION IS BLUNTED BY DIHYDROTESTOSTERONE IN PRIMARY HUMAN VASCULAR SMOOTH MUSCLE CELLS

Second Prize: Lauren Biwer  UA-PHX  TRANSIENT ACE INHIBITOR TREATMENT IN SHR CONFFERS PROTECTION AGAINST L-NAME INDUCED DIASTOLIC DYSFUNCTION

Third Prize: Mateja Lekic  ASU  CHARACTERIZATION OF ACh-MEDIATED VASODILATION IN TIBIALIS AND MESENTERIC ARTERIES ISOLATED FROM MOURNING DOVES

**Poster Presentations: Graduate Students**

First Prize: Stoyan Angelov  UA  ROLE OF Cx43 AND ITS MAPK TARGET SITES IN MESENCHYMAL CELL DIFFERENTIATION
Second Prize: Cara Sherwood UA ARSENIC ALTERS BARRIER PROPERTIES IN HUMAN AIRWAY EPITHELIAL CELLS

Third Prize: Krysta Powers NAU THE RELATIVE CONTRIBUTIONS OF TITIN AND COLLAGEN TO PASSIVE TENSION IN THE WHOLE MOUSE SOLEUS MUSCLE

Award winners received $100 for First Prize, $50 for Second Prize, $25 for Third Prize

ASU = Arizona State University
MU = Midwestern University
NAU = Northern Arizona University
UA = University of Arizona
UA-PHX = University of Arizona at Phoenix