



aps Intersociety Meeting: The Integrative Biology of Exercise VII

November 2-4, 2016 • Phoenix, AZ

PURPOSE

Join us for the seventh APS Intersociety Meeting: The Integrative Biology of Exercise which is held in conjunction with the American College of Sport Medicine (ACSM) every four years for researchers interested in exercise physiology. Connect with peers at this exciting meeting to discuss exercise physiology as it relates to topics including brain cell stress responses, metabolic diseases, mitochondrial signaling, sedentary behavior, exercise and pregnancy, cardiovascular disease, aging, and stem cells.

DEADLINES

Abstract: **June 30**

Registration: **October 3**

Housing: **October 18**

LOCATION: Phoenix, Arizona



The Hyatt Regency Phoenix is located in the heart of the city close to dining, activities, and shopping. Enjoy warm temperatures and a sunny climate while visiting the Desert Botanical Garden or the Phoenix Mountains Preserve. Experience one of the seven Natural wonders of the World at the Grand Canyon National Park. More than one hundred restaurants, rooftop lounges, theaters, art galleries, and sports arenas are located in downtown Phoenix so you will never be short on things to do in this vibrant city.

The Hyatt Regency is easily accessible from the Phoenix Sky Harbor International Airport being 15 minutes away. Temperatures in this area during November usually range from the upper 70's to lower 80's making the outdoors ideal for all types of activities.

For more information on the city of Phoenix, please visit visitphoenix.com.

ORGANIZING COMMITTEE

Darrell Neuffer (Chair)
East Carolina University

Sue Bodine
University of California, Davis

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University of Missouri, Columbia

Roger Fielding
Tufts University

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Register by September 3, 2016 and be entered to WIN an iPad Pro! the-aps.org/exercise



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Call for Abstracts



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Guest Society



AMERICAN COLLEGE
of SPORTS MEDICINE

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Hyatt Regency Phoenix
Phoenix, Arizona
November 2-4, 2016



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#IBExercise7

For more information or to register,
visit the-aps.org/exercise



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MEETING PROGRAM

Symposia I

Toward Deciphering the Exercise Responsome

- Connecting the Exersome Response to Health Benefits–**Marc Tarnopolsky**
- Influence of Exercise and Circadian Biomarkers on Multi-Omic Integrated Networks in Children–**Eric Hoffman**
- Gut Microbiota to Brain Signaling in Exercise-Induced Stress Robustness–**Monika Fleshner**
- Mapping the Human Exercise Signaling Kinase Network–**David James**

Concurrent Symposia II

Exercise Triggers Adaptive Brain Cell Stress Responses

- Exercise Protects the Brain Against Chronic Stress–**Karim Alkadhi**
- Exercise and Brain Plasticity–**Henriette van Praag**
- Exercise and Endocannabinoid Signaling in Humans–**Dave Raichlen**
- How Sedentary Lifestyles Impair Adaptive Neuroplasticity–**Alex Stranahan**

Concurrent Symposia III

Substrate Control During Exercise: Novel Insights for Halting the Pathogenesis of Metabolic Diseases

- Cellular Energy Sensing and the Regulation of Metabolism–**Gregory Steinberg**
- Exercise Training, Lipid Droplets, and Oxidative Phenotype–**Matthijs Hesselink**
- Phosphatidylethanolamine Synthesis in Regulating Skeletal Muscle Lipid Content and Mitochondrial Function: Implications for Insulin Action–**Clinton Bruce**
- Exercise and Adipose Tissue Remodeling: Pathways for Halting Diabetes Pathogenesis–**Laurie Goodyear**

Plenary Lecture

Mitochondria as Signaling Organelles: Fueling a Renaissance in Metabolism

Speaker: Johan Auwerx

Career Session

Career Development Workshop

Concurrent Symposia IV

The Physiology of Sedentary Behavior, How is it Distinguished from Physical Inactivity

- Epidemiology of Sedentary Behavior–**Peter Katzmarzyk**
- Physiology of Sedentary Behavior and its Relationship to Health Outcomes–**David Dunstan**
- Genetics of Exercise Avoidance–**Rod Dishman**
- Novel Strategies and Approaches for Sedentary Behavior Physiology Research–**William Kraus**

Concurrent Symposia V

Mitochondrial Signaling and Inter-Organelle Crosstalk

- Mitochondrial-Derived Peptides Regulate Energy Homeostasis–**Pinchas Cohen**
- Role of the Acetylome in Mitochondrial Energy Sensing and Signaling–**Michael Sack**
- Cardiac Mitochondrial Remodeling in Response to Exercise and Disease–**Dan Kelly**
- Epigenetic Regulation of Mitochondrial Metabolism–**Juleen Zierath**

Concurrent Symposia VI

Activity/Exercise During Pregnancy and Early Development: Implications for Long-Term Health

- Impact of Paternal Exercise on Offspring Health–**Alex Murashov**
- Exercise During Pregnancy and Long Term Impact on Offspring Health–**Kevin Pearson**
- Gestational Exercise and Impact on Long Term Activity of Offspring–**Ted Garland**
- Placental and Offspring Adaptations to Maternal Exercise and Obesogenic Diets–**Kartik Shankar**

Concurrent Symposia VII

Impact of Exercise on Adipose Tissue Metabolism—Beyond Browning

- Exercise and Adipose Tissue Fibrosis–**Carey Lumeng**
- Exercise Effects on Adipocyte Cell Size and Expandability–**Jeff Horowitz**
- Exercise and Regulation of Adipose Tissue Blood Flow & Metabolism–**Fredrik Karpe**
- Exercise Training, Adipocyte Precursors, and miRNA Regulation of Lipid Flux–**Matt Watt**

Plenary Lecture

Adaptive Responses of Neuronal Mitochondria to Exercise

Speaker: Mark Mattson

Concurrent Symposia VIII

Brains, Blood Vessels, and Hearts: Can Exercise Treat the Molecular Mechanisms Underlying Cardiovascular Disease?

- Utilizing Exercise to Treat the Cardiomyocyte–**Tim Domeier**
- Mechanisms of Coronary Microcirculation Dysfunction in Heart Failure: What can we Learn from the Heart's Response to Acute Exercise?–**Daphne Merkus**
- Can Exercise Make Stem Cells Go Where They are Supposed to?–**Joe Libonati**
- Connecting the Brain to the Heart: A Tale of Two Exercise Intensities–**Dylan Oliver**

Concurrent Symposia IX

Exercise and Aging: Responsiveness of Skeletal Muscle to Exercise Training as a Function of Age

- Impact of Voluntary Exercise on Frailty in Old Mice–**LaDora Thompson**
- Satellite Cells: What is Their Role in Muscle Hypertrophy and Aging?–**Charlotte Peterson**
- Metabolic and Molecular Networks of Human Adaptation to Exercise and Age–**Phil Atherton**
- Exercise is Regenerative Medicine: Optimizing the Dose to Combat Aging Muscle Atrophy–**Marcas Bamman**

Closing Lecture

Sensorimotor Training of Spinal Networks to Restore Function in Spinal Cord Injured Patients

Speaker: Reggie Edgerton

ABSTRACTS

An exciting part of the meeting is the presentation of scientific abstracts. There are two poster sessions during the meeting that allow you to present your research along with your colleagues and peers. Deadline for abstract submission is **June 30, 2016**. The abstract online system is already accepting abstracts. Submit your abstract(s) in a few easy steps now! For more information, visit the-aps.org/exercise.

AWARDS

Calling all students and Postdoctoral Fellows. You may be eligible for travel award funding for this meeting. There are two awards available, the APS Abstract Travel Award and the APS Minority Travel Fellowship Award. Don't miss out on funding to attend this meeting. Deadline for both awards is **July 8, 2016**. For more information, visit the-aps.org/exercise.

HOUSING

This meeting is being held at the Hyatt Regency Phoenix in downtown Phoenix. The hotel is close to dining, shopping, and the convenient Valley Metro Light Rail system, which are all minutes from the Phoenix Sky Harbor International Airport. Single, double, triple, and quad occupancy rooms are available online. Deadline for housing is **October 18, 2016**. For more information, visit the-aps.org/exercise.

REGISTRATION

We can't wait for you to attend this meeting. Plan in advance and save on your registration fee. On-site registration is significantly higher than the advance registration fee so register early. Not an APS Member and want to save on the registration fee? No problem, join APS and become a member so you can also save on your registration fee! Enjoy your membership benefit of discounted registration when you join. Deadline for registration is **October 3, 2016**. For more information, visit the-aps.org/exercise.



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