

# Integrative Physiology of Exercise

Austin • November 11–13, 2020



## Tentative Agenda

### Wednesday, November 11, 2020

- 3:00 p.m. Registration Opens
- 5:00 p.m. Welcome  
Scott Trappe, PhD, Conference Chair  
Ball State Univ.
- 5:15 p.m. – 7:15 p.m. **Symposium 1**  
**Scientific Contributions of John Holloszy**  
Chair: John Kirwan, PhD  
Pennington Biomedical Research Center
- 5:15 p.m. – 5:45 p.m. Amira Klip, PhD  
Hospital for Sick Children  
*When GLUT4 ‘arrived’ in muscle*
- 5:45 p.m. – 6:15 p.m. Juleen Zierath, PhD  
Karolinska Institute  
*Exercise as “medicine” to enhance insulin sensitivity and metabolism in type 2 diabetes: Inspired by John O. Holloszy*
- 6:15 p.m. – 6:45 p.m. Katsuhiko Funai, PhD  
Univ. of Utah  
*Biogenesis of Mitochondrial Membranes*
- 6:45 p.m. – 7:15 p.m. Jacob Haus, PhD  
Univ. of Michigan  
*Calcium and Caloric Restriction: New perspectives on old ideas for the treatment of diabetes*
- 7:15 p.m. – 8:30 p.m. Welcome Reception

### Thursday, November 12, 2020

- 7:00 a.m. – 7:00 p.m. Registration
- 8:00 a.m. – 10:00 a.m. **Concurrent Symposium 2**  
**Exercise & Organ Crosstalk**  
Chair: Bente Klarlund Pedersen,  
MD, DMSc, Rigshospitalet Hospital  
& Univ. of Copenhagen
- Concurrent Symposium 3**  
**Testosterone, Health & Performance**  
Chair: Matthew Fedoruk, PhD, United  
States Anti-Doping Agency (USADA)

8:00 a.m. – 8:30 a.m.	Henriette Van Praag, PhD Florida Atlantic Univ. <i>Muscle-brain cross-talk</i>	Daniel Eichner, PhD Sports Medicine Research & Testing Laboratory <i>Testosterone and androgen abuse in sport - Evolution and challenges in detection</i>
8:30 a.m. – 9:00 a.m.	David Wright, PhD Univ. of Guelph <i>Exercise-induced browning of white adipose tissue</i>	Stefan Pasiakos, PhD Military Nutrition Division, US Army Research Institute of Environmental Medicine <i>Testosterone supplementation, energy deficit and performance</i>
9:00 a.m. – 9:30 a.m.	Mark Febbraio, PhD Monash Univ. <i>Role of extracellular vesicles in tissue cross talk during exercise</i>	Angelica Lindén Hirschberg, MD, PhD Karolinska Institute <i>Testosterone, females and athletic response - current research and controversy</i>
9:30 a.m. – 10:00 a.m.	Cora Weigert, PhD Univ. of Tuebingen <i>Hepatokines-a novel group of exercise factors</i>	AI Matsumoto, MD Univ. of Washington <i>Testosterone and Sport - medical need or anti-aging fad?</i>
10:00 a.m. – 10:30 a.m.	Coffee Break	
10:30 a.m. – 11:30 a.m.	<b><u>Keynote Address 1</u></b> <b>August Krogh, Nobel Laureate: 100 Year Anniversary Celebration</b> Michael Kjaer, MD, DMSc Univ. of Copenhagen	
11:30 a.m. – 12:30 p.m.	<b><u>Workshop 1</u></b> <b>Navigating the NIH for Young Investigators &amp; Grant Writing</b> Facilitators: Lyndon Joseph, PhD, NIA and Amanda Boyce, PhD NIAMS	
12:30 p.m. – 2:30 p.m.	Lunch on own <b>Poster Session 1 – Even Numbered Posters</b>	
2:30 p.m. – 4:30 p.m.	<b><u>Concurrent Symposium 4</u></b> <b>Trainee Presentations: A</b> Presenter 1A: TBA Presenter 2A: TBA Presenter 3A: TBA Presenter 4A: TBA Presenter 5A: TBA Presenter 6A: TBA Presenter 7A: TBA	<b><u>Concurrent Symposium 5</u></b> <b>Trainee Presentations: B</b> Presenter 1B: TBA Presenter 2B: TBA Presenter 3B: TBA Presenter 4B: TBA Presenter 5B: TBA Presenter 6B: TBA Presenter 7B: TBA
4:30 p.m. – 6:30 p.m.	<b><u>Integrated Physiology of Exercise VIII Quiz Bowl</u></b> Master of Ceremonies: TBA	

## Friday, November 13, 2020

7:00 a.m. – 5:00 p.m.	Registration	
8:00 a.m. – 10:00 a.m.	<b><u>Concurrent Symposium 6</u></b> <b>Homeostasis &amp; adaptation of tendons to exercise</b> Chair: Peter Magnusson, DMSc, Institute of Sports Medicine Copenhagen	<b><u>Concurrent Symposium 7</u></b> <b>Mission to mars: Astronaut health &amp; exercise</b> Chairs: Jessica Scott, PhD, Memorial Sloan Kettering Cancer Center and Lori Ploutz-Snyder, PhD, Univ. of Michigan
8:00 a.m. – 8:30 a.m.	Karl Kadler, PhD The Univ. of Manchester <i>The role of the circadian clock in exercising tendons</i>	Lori Ploutz-Snyder, PhD Univ. of Michigan <i>Overview of multisystem deconditioning</i>
8:30 a.m. – 9:00 a.m.	Michael Kjaer, MD, DMSc Univ. of Copenhagen <i>Cellular and molecular responses to exercise and inactivity in human tendons</i>	Jessica Scott, PhD Memorial Sloan Kettering Cancer Center <i>Exercise to mitigate multisystem deconditioning: the NASA 70-day bed rest study</i>
9:00 a.m. – 9:30 a.m.	Stephanie Dakin, PhD Univ. of Oxford <i>Exercise induced inflammation in tendon</i>	Scott Smith, PhD National Aeronautics and Space Administration (NASA) <i>Nutritional countermeasures to mitigate multisystem deconditioning</i>
9:30 a.m. – 10:00 a.m.	Chris Mendias, PhD The Hospital for Special Surgery <i>Regulation of extracellular matrix tendon tissue in response to resistance training</i>	Michael Fossum (Astronaut) Texas A&M University at Galveston <i>Exercise and nutrition in space: The astronaut perspective</i>
10:00 a.m. – 10:30 a.m.	Coffee Break	
10:30 a.m. – 11:30 a.m.	<b><u>Keynote Address 2</u></b> <b>AV Hill, Nobel Laureate: 100 Year Anniversary Celebration</b> David Bassett, PhD Univ. of Tennessee	
11:30 a.m. – 12:30 p.m.	<b><u>Workshop 2</u></b> <b>Career Paths &amp; Diversity in Science</b> Facilitator(s): TBD	
12:30 p.m. – 2:30 p.m.	Lunch on own <b>Poster Session 2 – Odd Numbered Posters</b>	

2:30 p.m. – 3:30 p.m.	<b><u>Workshop 3</u></b> <b>Team Science</b> Facilitator(s): TBD	<b><u>Workshop 4</u></b> <b>Social Media</b> Facilitator: Stacy Brooks, American Physiological Society
3:30 p.m. – 5:30 p.m.	<b><u>Symposium 8</u></b> <b>Molecular Transducers of Physical Activity Consortium (MoTrPAC)</b> Session Chair: Sue Bodine, PhD, Univ. of Iowa	
3:30 p.m. – 3:55 p.m.	Sue Bodine, PhD Univ. of Iowa <i>Overview of preclinical animal study protocol and results of training studies</i>	
3:55 p.m. – 4:20 p.m.	Marcas Bamman, PhD Univ. of Alabama Birmingham <i>Overview and update of MoTrPAC clinical studies</i>	
4:20 p.m. – 4:50 p.m.	Malene Lindholm, PhD Stanford Univ. <i>Integrative multi-omic analysis in MoTrPAC</i>	
4:50 p.m. – 5:10 p.m.	Bret Goodpaster, PhD AdventHealth Research Institute <i>Moving the exercise biology field beyond MoTrPAC</i>	
5:10 p.m. – 5:30 p.m.	<b>MoTrPAC Panel Discussion with Speakers, NIH Officials and Audience</b>	
5:30 p.m. – 6:00 p.m.	<b>Awards Presentation</b>	
6:00 p.m. – 6:15 p.m.	<b>Closing Comments</b> Scott Trappe, PhD, Conference Chair Ball State Univ.	