



APS: Environmental & Exercise Physiology Section Newsletter

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1. Congratulations to the 2008 EEP Section Award winners:

New Investigator Award:



Dr. Kei Sakamoto – MRC Protein Phosphorylation Unit, College of Life Sciences, University of Dundee, Scotland, UK. Dr. Sakamoto received his Ph.D. in 2003 (Yokohama City University, Japan) and completed his post-doctoral Fellowship at the Joslin Diabetes Center, Harvard Medical School. He has been a prolific scientist with numerous high-impact papers regarding cellular metabolic control in skeletal muscle during exercise.

Pre-doctoral Awards:

- Gatorade Young Investigator Award: Adeel Safdar, McMaster University, "Mitochondrial DNA Rejuvenescence: Why Resist?"
- Military Physiology Pre-doctoral Awards: Marcia J. Abbott, University of Southern California, "Contraction-induced fatty acid uptake and oxidation are regulated in part via CaMKKB-dependent activation in perfused rat muscle."
- Gravitational Physiology Pre-doctoral Award: Brandon R. Macias, University of California - San Diego, "Lower body negative pressure treadmill exercise and resistive exercise countermeasures maintain physiologic function in women during simulated microgravity."
- EEP Recognition Pre-doctoral Award: Brett S. Kirby, Colorado State University, "Exogenous ATP abolishes postjunctional alpha 1 and alpha 2-adrenergic vasoconstriction in humans."
- EEP Recognition Pre-doctoral Award: Daniel A. Kane, East Carolina University, "Metformin attenuates a complex I mediated increase in mitochondrial oxidant emitting potential muscle of obese Zucker rats."

Post-doctoral Awards:

- Gatorade Beginning Investigator Award: Ethan Anderson, East Carolina University, “Excess dietary fat depletes glutathione, increases mitochondrial oxidant emitting potential and shifts redox balance to a more oxidized state in human skeletal muscle.”
- Military Physiology Beginning Investigator Award: Andreas N. Kavazis, University of Florida, “Quantitative proteomics using isobaric tags for relative and absolute quantification (iTRAQ™) reveals differential protein expression in sedentary and exercise trained cardiac mitochondria.”
- Gravitational Physiology Beginning Investigator Award: Micah Drummond, University of Texas Medical Branch – Galveston, “Expression of genes regulating protein synthesis in young and old human muscle following resistance exercise and essential amino acid ingestion. “
- Recognition Award for Beginning Investigators: Brad W. Wilkins, University of Oregon, “Effect of adenosine receptor antagonists on augmented vasodilation during hypoxic exercise.”
- Recognition Award for Beginning Investigators: Christopher Mendias, University of Michigan, “Bigger muscles and smaller tendons – myostatin deficiency results in small, brittle, hypocellular tendons.”

2. New EEP Steering Committee Members:



Nisha Charkoudian, Associate Professor of Physiology, Mayo Clinic, will serve as an EEP Thermal Councilor for the next three years, beginning after EB08.



Peter A. Farrell, Professor and Chair of the Department of Exercise and Sport Science at East Carolina University will serve as an EEP Exercise Councilor for the next three years, beginning after EB08.



Craig Crandall, Associate Professor of Internal Medicine and Cardiology, Institute of Exercise and Environmental Medicine, Presbyterian Hospital, Southwestern Medical School, will serve as EEP Joint Program Committee Representative for the next three years, beginning after EB2008.



Hiroshi Nose, Professor, Department of Sports Medical Sciences, Shinshu University Graduate School of Medicine, Nagano, Japan, will serve as International Representative to EEP for the next three years, beginning after EB2008.



Karen Mittleman, Director, Global Medical Affairs Publications Group, Sanofi-Aventis Pharmaceuticals will serve as EEP Liaison with Industry for the next three years, beginning after EB08.

3. Thank You to Outgoing EEP Steering Committee Members

EEP appreciates the hard work and excellent service for the following outgoing steering committee members service during the past three years.



Mark Hargreaves – Outgoing International Representative



David Hood – Outgoing Exercise Physiology Councilor



Lisa Leon – Outgoing Thermal Physiology Councilor



Darrell Neuffer – Outgoing Joint Program Committee Representative



Jeff Zachwieja – Outgoing Liaison with Industry Committee Representative

4. Adolph Lecture and Student Luncheon:



Dr. Ronald L. Terjung is the 2008 Edward F. Adolph Distinguished Lecturer and will be presenting the lecture entitled, “*Vascular Adaptations Induced by Exercise*” on Monday April 7th at 2 PM. Dr. Terjung holds positions at the University of Missouri as Professor and Associate Chair, Department of Biomedical Sciences, College of Veterinary Medicine, Professor Department of Medical Pharmacology and Physiology, College of Medicine, Senior Investigator, Dalton Cardiovascular Research Center, and Associate Dean for Research and Graduate Studies. Dr. Terjung has over 130 peer-reviewed publications in the areas of skeletal muscle, energy metabolism, cardiovascular function and remodeling and the acute and adaptive changes induced by physical activity.

Dr. Terjung will participate in a free luncheon with graduate students and post-doctoral trainees at EB08. Limited reservations are still available (contact Mike Sawka): Time & Place: Noon, Balboa, Marriott Hotel, Monday, April 7th

5. EEP Honor Award:



Dr. Brian J. Whipp is the 2008 EEP Honor Award recipient. He is the Principal Research Fellow and Visiting Professor Institute of Membrane and Systems Biology University of Leeds, Leeds, UK. Dr. Whipp made significant contributions to human exercise physiology and the American Physiological Society over the past three decades. He produced seminal work in three distinct areas: skeletal muscle bioenergetics, pulmonary gas exchange and ventilatory control. His emphasis on systems analysis and mathematical control techniques had a significant impact on modern experimental techniques by providing a contemporary perspective on aspects as diverse as ATP status in skeletal muscle and blood acid-base regulation, and how these are challenged at the limits of physical performance in health and disease.

6. EB08 EEP Activities:

EEP Program Committee: Friday, April 4, 4:00 pm; Irvine Room, San Diego Marriott Hotel

EEP Steering Committee: Sunday, April 6, 6:30 am, Los Angeles Room, San Diego Marriott Hotel

Adolph Lecture Trainee Luncheon: Monday, April 7, 12:00 pm, Balboa Room, San Diego Marriott Hotel (**free lunch**; limited space contact Dr. Sawka for reservation)

EEP Business/Awards/Reception: Monday, April 7, 6:00 pm, Torrance Room, San Diego Marriott Hotel (**free hors d’ouvres**)

7. EB08 Scientific Sessions of EEP Interest:

Sunday, April 6:

- Feature Topic – Renal & Circulatory Pathophysiology in Metabolic Syndrome (Room 28B; 8-10:30)
- Feature Topic - Signaling and Control of Skeletal Muscle Remodeling (#25A; 8-10:30)
- Feature Topic - Impact of Obesity on Cardiovascular Function: Role of Inflammation (Room #28B; 10:30-12:30)
- Symposium – Role of Carotid in Oxygen Homeostasis, Sukhamay Lahiri (Room #26; 10:30-1:30)
- EEP Symposia - Skeletal Muscle Mitochondrial Function and Dysfunction with Age, David Hood (Room #23; 3:15-5:15)

Monday, April 7:

- EEP Symposium - Exercise Prescriptions For Prolonged Space Flight, Per Tesch (Room #26; 8-10:00)
- Feature Topic – Metabolic Syndrome: Molecular Mechanisms, Omics and Physiology, ((Room #25A; 8-10:00)
- Feature Topic - The Antiquity of Exercise, Exercise Physiology, and the Exercise Prescription for Health, Charles M. Tipton & Suzanne M. Schneider (Room #28B; 10:30-12:30)
- Feature Topic – Energy Balance and Circulatory Control: Central Pathways and Mechanisms (Room #22; 10:30-12:30)
- EEP Adolph Distinguished Lecture – Ron Terjung, Vascular Adaptations Induced by Exercise (Room #23; 2-3:00)
- EEP Symposium - Role of ROS and NO in Contraction-Stimulated Glucose Uptake in Skeletal Muscle, Michael Reid (Room #25A; 3:15-5:15)
- Symposium – New Insights Into Urine Concentrating Mechanisms, Jeff Sands (Room #23; 3:15-5:15)

Tuesday, April 8

- EEP Featured Topic - "Satellite Cell Regulation with Aging and Exercise", T. Hawke (Room #23; 8-10:00)
- Symposium - Temperature Sensing by TRP Channels, Jie Zheng, (Room #24; 8-10:00)
- Symposium – Systems & Computational Biology: A Direction for Physiology in 21 Century, P. Ping & W. Chilian, (Room #27; 10:30-11:30)
- Feature Topic - Diving Physiology of Mammals and Birds, (Room #26; 10:30-11:30)
- Feature Topic - Muscle Fatigue, (Room #25A ; 10 :30-12 :30)
- Feature Topic - Energy Balance, Cancer and Diabetes, (25A; 3:15-5:15)
- Feature Topic – Oxygen Sensing in Pulmonary Vasculature in Health & Disease, (Room #22; 3:15-5:15)

Wednesday, April 9

- Feature Topic - Cytokines, Inflammation and Autonomic Regulation, (Room #28B; 8-10:00)
- Physiology In Focus: Mechanistic Links from Inactive Lifestyles to Chronic Disease, Frank Booth (Room #24; 9:20)
- Feature Topic - Exercise, Oxidative Stress, and Endothelial Function, (Room #25C; 10:30-12:30)
- Symposium - Mechanisms of Metabolic Depression, Frank van Breukelen & Jason Podrabsky (Room 25B; 10:30-12:30)

8. EEP “Legends” Featured in APS Living History Program

The APS has initiated the Living History of Physiology Project. The Society encourages the membership to consider interviewing senior physiologists at their institutions to provide a living history of physiology. The videos focus on each physiologist’s training and career and their professional interactions. EEP “Legends” Clark Blatteis, John Greenleaf and Edgar Folk are among the first six persons entered into APS web-site (<http://www.the-aps.org/livinghistory/index.htm>). In the next year, EEP “Legends” to be included are Charles Tipton and Elsworth Buskirk. This site provides interesting and important lessons regarding the history of physiology.



Edgar Folk

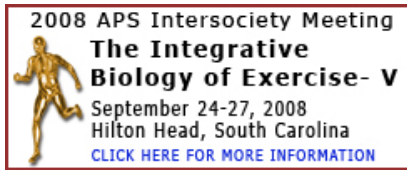


John Greenleaf



Clark Blatteis

9. News and Information



Do not forget to attend EEP sponsored - APS Intersociety Meeting - The Integrative Biology of Exercise V; September 24-27, 2008 Hilton Head, South Carolina. The Abstract Deadline: June 2, 2008. <http://www.the-aps.org/meetings/aps/hiltonhead08/index.htm>

NIH Seeks Peer Reviewers for Study Section Service NIH's Center for Scientific Review (CSR) is seeking qualified reviewers to serve on their study sections. APS is offering assistance by compiling a list of volunteers from our membership who are willing and qualified to serve as reviewers. If you are interested complete the form at <http://www.the-aps.org/eforms/volunteer.asp>.

Two EEP post-doctoral fellows received APS stop-gap awards: 1) Chad C. Carroll, Ball State University, "Analgesics, Exercise & Tendon Adaptations in the Elderly"; and 2) Jonathan Wingo, Presbyterian Hospital of Dallas, "Spinal Cord Injury and Heat Acclimation".

Welcome to the following new EEP members!

Regular – Kris Baltgalvis, Sebastien Banzet, Beth Beidleman, Patrice Brassard, Robert Brothers, Julien Brugniaux, Darren Casey, Richard Courtemanche, Micah Drummond, Chad Hancock, Alastair Hodges, Shannon L. Lennon-Edwards, Chad Markert, John Mattson, Jenni McCord, Kevin Milne, Jeff Otis, Vincent Pialoux, Daniel S. Rooks, Babs Soller, Martine Thomis, Brad Wilkins, Kevin Zwetsloot,

Student - Ismahil Adenivi, Heather Argadine, Eric Bomardier, Kimberly Brown, Scott Burley, Josh Cotter, Michelle DiGeronimo, Fiona Familton, Jennifer Gay, Justin Hooker, Steve Laurie, Lou Lombardo, Erika Nassar, Altin Ndrita, Sean Newsome, Max Nunn, Bruno Roseguini, Chris Vigna, Chi-An Wang.

10. Journal of Applied Physiology – Update



Jerry Dempsey – Editor-In-Chief

Thank you for the opportunity to bring you up to date on the Journal of Applied Physiology. Our Point: Counterpoint series continues on an almost monthly basis. Many of the topics deal with environmental and/or exercise physiology and many of the authors are EEP members. Nevertheless we need your ideas for future Point: Counterpoints in the Journal of Applied Physiology. Please let us know what you think is a worthwhile, controversial problem and which authors might contribute to the debate. We will take it from there. I especially encourage beginning investigators to participate in these debates – either as a main author or as an author of a brief commentary (<http://www.the-aps.org/publications/specialcalls/jappl-ppc-instructions.htm>).

We also have initiated a new manuscript type entitled "Viewpoint." The idea is to have fresh perspectives presented to the readership and in turn invite the readers to comment. So, dust off one of your favorite concepts that you have been developing over the years and send it along for peer review.

The JAP continues to align closely with the EEP leadership and its members. We look forward to continuing and strengthening this relationship. Send us your ideas and your manuscripts.

11. Advise your Chair



Mike Sawka (michael.sawka@us.army.mil)

Adolph Distinguished Lecturer: Nominations are requested for the 2009 Adolph Lecturer. Please provide me (Mike Sawka) a copy of the nominee's curriculum vitae and nomination letter. Past lecturers are: 1994 - B. Saltin, 1995 - L.B. Rowell, 1996 - J.T. Reeves, 1997 – C. Jessen, 1998 – K. Baldwin, 1999 - J.O. Holloszy (in place of deceased E.R. Nadel), 2000 - E. Simon (in place of deceased C.V. Gisolfi), 2001 – G. Brooks, 2002 – P.D. Wagner, 2003 – J. Mitchell, 2004 – V. Reggie Edgerton, 2005 - E.A. Richter, 2006 – F.W. Booth, 2007 – J. Boulant, 2008 – R.L. Terjung.

EEP Honor Award: Nominations are requested for the 2009 EEP Honor Award. Please provide me (Mike Sawka) a copy of the nominee's curriculum vitae and nomination letter. Candidate must be at least 60 yrs of age, have been a primary member of EEP, and made significant research contributions to the scientific advancement of environmental, exercise, or thermal physiology while enhancing the educational objectives of the section. Past recipients are: 1987 - Bruce Dill, 1988 - Pharo Gagge, 1989 - Sid Robinson, 1990 - Robert Grover, 1991 - Robert E. Johnson, 1992 - Steve Horvath, 1993 - Elsworth Buskirk, 1994 - Edgar Folk Jr., 1995 - Suski Hong, 1996 - Harold Ted Hammel, 1997 - Charles M. Tipton, 1998 - John Faulkner, 1999 - Jack Reeves, 2000 - X. Joseph Musacchia, 2001 - Charles Senay, 2002 - David Robertshaw, 2003 - Clark Blatteis, 2004 - John Greenleaf, 2005 - Jack Boulant, 2006 - Kenneth M. Baldwin, 2007 - Jere Mitchel, 2008 - Brian J. Whipp.

EEP Business/Award/Social Meeting: One item being discussed is the format of the EEP Business/Award/Social Meeting. The past 3 years, EEP has employed the following combined meeting format: brief EEP update by Chair, award presentation and social hour (cash bar) with complimentary hors d'ouvres. Prior formats consisted of a business meeting with a separate awards dinner. It has been proposed that this format be modified by a Business/Award meeting (separate room) immediately followed by a social hour. Send your suggestions to Mike Sawka on preferences for future EEP meeting formats.

Featured Topic Formats: APS Council suggested implementing a policy where only one invited speaker (currently two) is allowed per featured topic, with funding of \$500 max, and reprogramming the remaining slots with trainee abstracts. The trainee presenters would each receive a \$250 travel stipend. The intent is to increase the number of abstract-based oral presentations and, particularly, those of trainees. My position was that APS Council should make this a suggestion, not a mandate. I believe that sections should continue to have the freedom to adopt program (Featured Topics) that best fits best with their constituent group.

Section Affiliations and Voting: APS Council approved a change in how members affiliate with sections. Beginning immediately, each member within the APS must declare a primary sectional membership. Members may also select a maximum of two additional sections with which to affiliate. Sections must decide how they wish to treat their non-primary affiliates; whether they will have voting rights or the ability to serve on committees. SAC agrees with this new mechanism of membership affiliation. Currently, EEP is one of the few sections that will allow all members (primary, secondary) to vote in section elections. Support for continuing this policy is that it is inclusionary (in future would allow primary and affiliate members) and voting participation has been a problem. For example, during the last election only 325 of 1722 EEP members voted (578 primary, 658 secondary, 486 tertiary) EEP members voted. The counter argument is that if all members (primary and affiliate) vote this will dilute the influence of primary members on their own (EEP) organization. During this year, the EEP bylaws will be updated; and your opinions on voting policy would be appreciated.

12. Know Your Steering Committee

The following individuals were elected to serve your interests. If you have any program or other ideas / concerns regarding APS and EEP issues please do not hesitate to contact the following:

Chair - Michael N. Sawka (508) 233-5665
Joint Program Committee Representative – Craig Crandall (214) 345-4623
Exercise Physiology Councilor – Peter A. Farrell (252) 328-4635
Exercise Physiology Councilor - Scott William Trappe (765) 285-1145
Environmental Physiology Councilor - Vincent J. Caiozzo (949) 824-7752
Environmental Physiology Councilor - Robert C Roach (303) 724-1670
Thermal Physiology Councilor - Samuel N. Cheuvront (508) 233-5607
Thermal Physiology Councilor - Nisha Charkoudian (507) 255-8475
Committee-on-Committees Representative - Michael C. Hogan (619) 534-2773
Trainee Advisory Representative - Lacy M.A. Holowatz (814) 863-2948
International Committee Representative – Hiroshi Nose (81) 263-372681
Liaison with Industry – Karen Mittleman (908) 231-4015

13. In Memoriam: Evelyn Satinoff



Evelyn Satinoff

It is with sadness that we announce the passing of Dr. Evelyn Satinoff, a distinguished physiological / psychologist, who passed away from lung cancer on January 29, 2008. Evelyn is regarded as a pioneer in the field of thermoregulation for her work on the central nervous control mechanisms of body temperature during hibernation, sleep disturbances, exercise and fever. During her tenure at the University of Illinois in Urbana-Champaign, she was named the Jubilee Professor of Psychology for her work on the neural control of homeostatic and rhythmic behaviors in aged rats. She was later appointed the Chair of the Psychology Department at the University of Delaware where her work focused on understanding the mechanisms of fever that go awry in aged mammals during infection or stress. Evelyn is survived by her sister Harriett Sisfre, her sons Daniel and David Teitelbaum, and her grandchildren Jacob and Maxine. A memorial service will be held in honor of Dr. Satinoff at the University of Delaware in April.