

The American Physiological Society



WATER AND ELECTROLYTE HOMEOSTASIS SECTION NEWSLETTER

Fall 2009

News from the Chair, Jane Reckelhoff



Once again, the WEH Section of APS is in the midst of a busy and productive year. **Jennifer Pollock** will soon be taking over as our JPC representative. During Jennifer's tenure, we were very successful in getting our members nominated and accepted to committees for APS. **David Mattson** will be replacing her on the Committee-on-Committees and **Mike Brands** has generously agreed to help out during the transition. If you want to be on a committee, send your CV to Jennifer Pollack, Mike Brands or David Mattson, and they will do the rest (see their write-up below). Next year's EB 2010 meeting promises to be very exciting. We have one regular symposium and two cross-sectional symposia on the

program plus our three featured topics. This newsletter will highlight several pertinent events, issues, and deadlines. Please be especially aware of the deadline for abstracts (**November 4**) and the numerous awards available for EB 2010.

Just a reminder, as in years past, one of our most important current goals is to increase membership in our Section. New membership is essential to the continued vitality of our Section. To this end, WEH Section will pay the first year's fees for any individual who wishes to become either a student member or a regular member of APS and designates the WEH Section as their primary affiliation. Simply contact me and I will do the rest. We need your help in recruiting new members to our Section!

Have a great Fall and Winter!



Important Deadlines

November 4, 2009: Deadline for Abstract Submission

November 13, 2009: Deadlines for Young Investigator Awards Applications

November 13, 2009: Deadline for applications for Predoctoral and Postdoctoral Trainee Recognition Awards

February 24, 2010: Early Registration Deadline

EB 2010 WEH Business Luncheon Sunday, April 25th 2010

Tom Cunningham, WEH Secretary/Treasurer

Please mark your calendars for the Annual WEH Business Luncheon at EB 2010 that will take place on **Sunday, April 25, 2010 at 11:30 am to 1:00 pm at the Catal Restaurant, 1580 Disney Land Dr. Anaheim.** The luncheon cost is \$5 for Students and Post-doctoral Fellows and \$25 for all other attendees. Tickets will be available online through APS. The DSI-WEH Student and Fellow Awardees will be announced at the luncheon.

Programming-EB 2010 – Jane Reckelhoff & Jennifer Pollock

WEH will have a very exciting meeting at EB2010. We will have 1 symposium and three Featured Topics. There are also two Cross-sectional Symposia that will WEH is supporting. Abstract deadline for EB2009 will be November 4, 2009.

Remember that if abstracts are selected for an oral presentation, they will be presented twice, once in the Featured topic oral session and once in the poster session associated with the Featured topic. Thank you to everyone who submitted symposia and featured topic ideas. You are the ones who drive the exciting science at this meeting!

The highlights of the 2010 meetings will be:

Starling Lecture: Monday, April 26, 2010, 2-3 PM. Kirk Conrad, Ph.D. Univ of Florida

Symposia:

1. Cross Sectional Symposium: Humoral factors in renal injury and hypertension. Monday 4/26/10; 3:15-5:15PM. This is a memorial to the work of Juan Carlos Romero, and the speakers and chairs are Carlos' former trainees. Chairs: Joey Granger (Univ of Miss Med Ctr) and Lizette Warner (Mayo). Speakers: Lilach Lerman (Mayo), Steve Textor (Mayo), Vicente Lahera (Madrid), Javier Salazar (Murcia).

2. Cross Sectional Symposium: One Hundred Years of Starling, Tuesday April 27, 2010. This is co-sponsored by the History Section and WEH. Chairs: Jane Reckelhoff (Univ of Miss Med Ctr), Rafael Rubio (Mexico). Speakers: Charles Michel (London), John Hall (Univ of Miss Med Ctr), Virginia Huxley (Univ of Missouri), John Solaro (Univ of Chicago).

3. WEH Section Translational Symposium: Wednesday, April 28, 2010, 8:00-10:00AM. New insights into the relationship between sodium metabolism and blood pressure regulation. Chairs: Michael Humphreys (UCSF), Peter Bie (Odense, Denmark). Speakers: Jens Titze (Erlangen-Nürnberg, Germany), Peter Bie, Jennifer Pollock (Med Coll Georgia), Curtis Morris.

4. Trainee symposium: Saturday, April 24, 2010; 4:15-5:15PM. Participants will be determined by abstracts submitted.

Featured Topics (Abstracts will be used to select additional speakers):

1. Autoregulation and renal injury. Sunday, 4/25, 2010; 8-10:00AM. Organizes: Heather Drummond (Univ of Miss Med Ctr) Speaker: Christopher Wilcox (Georgetown).

2. Neural control of blood pressure and fluid volume homeostasis: Sodium metabolism. Monday, April 26, 2010; 8-10:00 AM. Organizer: Thomas Cunningham (UNTHSC). Speaker: TBA and New Investigator awardee.

3. Sex Steroids in Cardiovascular Physiology and Pathophysiology. Tuesday, 4/27/10, 8-10:00 AM. Organizer: Barbara Alexander (Univ of Miss Med Ctr) and Donna Korzick (Penn State). Speakers: Jane Reckelhoff (Univ of Miss Med Ctr), Elizabeth Murphy (NIH).

WEH Abstract Category List: To be programmed in the WEH poster sessions, please select topic categories under the WEH heading in the EB 2010 Call for Abstracts booklet or EB web site when you submit your abstracts:

Featured topics

- 1245-APS Sex steroids in cardiovascular physiology and pathophysiology (Alexander/Korzick)
- 1246-APS Neural control of blood pressure and fluid volume homeostasis. Sodium metabolism (Cunningham)
- 1247-APS Autoregulation and renal injury (Drummond)

Posters:

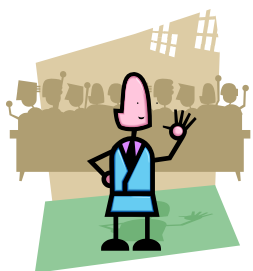
- 1248-APS Inflammatory mediators in control of cardiovascular ad renal function.
- 1249-APS Neural control of blood pressure and fluid volume homeostasis
- 1250-APS Renin-angiotensin system in regulation of blood pressure and renal function
- 1251-APS Sex steroids in cardiovascular-renal physiology
- 1252-APS Water and electrolyte homeostasis

Programming for EB 2011 Washington, DC (April 9-13)

Just a note about programming for WEH in the upcoming EB2011. In 2011, we will have one sectional symposium and 4 featured topics to program (we are adding an additional Featured Topic to the program). Please be thinking about Cross-sectional symposia, a Sectional symposium, and Featured Topics that would be appropriate. **This especially applies to junior investigators**—let us know what you want to hear about and propose yourself as a speaker.

We are also planning to add other Abstract categories to our list for the 2011 meeting to better serve our WEH members:

- Fetal programming of cardiovascular disease
- Cardiovascular complications of pregnancy



WEH Section Committee on Committees

Jennifer Pollock, Outgoing WEH Committee on Committee Representative

Now is the time to nominate yourself or someone else to serve on the various standing committees of APS. Last spring at the WEH luncheon, several people approached me about nominating themselves for committees--**please contact us.** We would like to have WEH represented on all APS committees.

There are positions coming available on most of the committees. The charge of each committee is located on the APS website for your information (www.the-aps.org/committees). The process for committee nomination includes filling out a Candidate Information Form and getting an APS member to fill out an Endorsement form for you (or we can do this for you). Both forms can be found at www.the-aps.org/committees/nominate.htm. Please send either the forms or your CV (and will fill the forms out for you) to Mike Brands (mbrands@mcgt.edu) or Dave Mattson (dmattson@mcw.edu) by December 15, 2009 so they be can be submitted to APS.

APS Trainee Advisory Committee

Jennifer M. Sasser, *WEH Representative*



I would like to remind all graduate students and postdocs to submit abstracts to a WEH sponsored section and to apply for the Water & Electrolyte Homeostasis Section Research Recognition Awards. The deadline for abstracts is Nov. 4, 2009, and the award applications deadline is Nov. 13, 2009. In addition to the section awards, also remember that the Trainee Advisory Committee has established an Early Career Professional Service Award which honors an early career stage member of the American Physiological Society who has made outstanding contributions to the physiology community and demonstrated dedication and commitment to furthering the broader goals of the physiology community. The deadline for applications is January 24, 2010.

Apply online at <http://www.the-aps.org/awardapps>.

At EB 2010, the Trainee Advisory Committee symposium will be "Publish, Not Perish: How to Survive the Peer Review Process." Invited speakers will discuss 1) How to Select a Journal, (2) Who are the Reviewers and What Are They Looking For? (3) Responding to Reviewers: Put Your Feelings in a Drawer and Regain Objectivity, and (4) How To Be a Constructive Reviewer. The symposium will be April 26, 2010 at 3:15 pm. Also, you can see the powerpoint presentations and hear audio of previous sessions from the Trainee Advisory Committee and other APS committees at <http://www.the-aps.org/trainees/EBsymposia.htm>. The topics covered include such topics as mentoring strategies, career choices, and career advancement at all levels.

APS is offering two Professional Skills Training courses, "Making Scientific Presentations" and "Writing and Reviewing for Scientific Journals" for graduate students and postdoctoral fellows this winter - Jan. 14-17th, 2010 at Disney's Contemporary Resort in Lake Buena Vista, Florida. Use the link below for information on the courses and available travel fellowships. <http://www.the-aps.org/education/profSkills/index.htm>

One important benefit of APS membership is the partnership with MentorNet, a one-on-one mentoring program. All APS trainee members are eligible to participate as protégés, and all APS members and all physiologists are eligible to participate as mentors. Please consider signing up for the mentoring program and take advantage of this great opportunity.

If you are interested in becoming more active in the APS, consider nominating yourself to serve on one of the APS standing committees. Many of these committees have trainee members, and some will have openings for 2011. See <http://www.the-aps.org/committees/nominate.htm> for details. The deadline for submitting the nomination form is January 15, 2010. Please contact me or Jennifer Pollock (Committee on Committees Representative) for more information.

For more information and useful links, visit the trainee website <http://www.the-aps.org/trainees/>, and subscribe to the Trainee ListServ. Don't forget to become a fan of the APS on Facebook. Please contact me if you have any questions or suggestions related to trainee issues.

2009 WEH New Investigator Award

Nominations are being solicited for the 2010 WEH New Investigator Award (\$1,000 plus reimbursement of the advance registration fee) recognizing an outstanding investigator in the early stages of his/her career. Candidates should be meritorious investigators contributing to the area represented by the WEH Section. Nominees should be APS members in good standing and not be above the rank of Assistant Professor or a comparable position in academia or industry. Nominations must be received from at least two regular APS members. Candidates will be judged on publications, research related to the WEH Section, and evidence of independence and promise. Although this is not an abstract-based award, awardees are expected to attend EB and make an oral or poster presentation. Please submit names with the accompanying materials online at <http://www.the-aps.org/awardapps>. The deadline is November 13th.

The Young Investigator Award in Regulatory and Integrative Physiology was established to encourage young investigators to continue careers in cardiovascular, renal, and neuroendocrine integrative research. The award is presented annually at the WEH Business Luncheon to a new investigator who has made important contributions to our understanding of the integrative aspects of cardiovascular, renal, and neuroendocrine physiology in health and/or disease. Contact Tom Cunningham or Catherine Uyehara for questions.

EB2010 Sessions of Interest

Physiology InFocus: Physiology and Biomedical Engineering:
Partners in Translational Research
Organized by Gary C. Sieck, Mayo Clin. Col. of Med.

Sunday April 25	Airway Smooth Muscle: Where Does It Come From, How Does It Work, What Does It Do J.J. Fredberg and Merryn Tawhai
Monday April 26	Preparing students for physiological complexity – emphasizing quantitative skills Dee U. Silverthorn
Tuesday April 27	One Hundred Years of Starling: His Contributions to Physiology Jane Reckelhoff and Rafael Rubio
Wednesday April 28	Physiology at the Crossroads of Biomedical Engineering and Medicine Y.S. Prakash

Public Policy Track

Saturday April 24	Science Beyond the Laboratory: From Grad School through Retirement Gina Schatteman Trends in Animal Rights Activism and Extremism Bill Yates
Monday April 26	The <i>Scientific Foundations for Future Physicians</i> Report and Its Implications for Medical and Pre-Medical Education Dee U. Silverthorn
Tuesday April 27	The Walter C. Randall Lecture on Biomedical Ethics Debra Anne Schwinn

Career Development Track

Saturday April 24	Productive Translational Research: Tools for Connecting Research Cultures and Managing Conflict Deborah Zucker Science Beyond the Laboratory: From Grad School through Retirement Gina Schatteman
Sunday April 25	Government Careers in Physiology Revealed Kathy Ryan and Kamal Rahmouni Helping Students Put the Pieces Together: Fostering Integrative Learning of Physiology William H. Cliff
Monday April 26	Publishing 101: Dos and Don'ts of Publishing in APS Journals Kim E. Barrett and Rita Scheman Publish, Not Perish: How to Survive the Peer Review Process Jessica A. Clark and Sender Lkhagvadorj
Tuesday April 27	A primer For the New PI: How to Herd Cats AND Keep Your Boss Happy Francisco H. Andrade and Angela J. Grippo

Blood Pressure Regulation Track

Sunday April 25	Autonomic Adjustments to Stress Chester A. Ray and Jason R. Carter Autoregulation and Renal Injury Heather Drummond Interaction Between Respiratory and Limb Muscle Blood Flow During Exercise Peter D. Wagner and Jerome Dempsey Molecular Mechanisms and Genetics of Hypertension Carol Moreno Quinn and Anna Dominiczak
Monday April 26	Interactions Between Myosin Light Chain Kinase and Phosphatase in Arteriolar Myogenic Tone Michael Hill and William Cole Neural Control of Blood Pressure and Fluid Volume Homeostasis: Sodium Metabolism Thomas Cunningham Neural Mechanisms of Sympathetic Activation in Cardiovascular Diseases Hui-Lin Pan Neuromodulatory Cytokines in Cardiovascular Functions Mohan Raizada and Julian Paton Pulmonary Hypertension: Mechanisms and Mediators Larissa Shimoda and Thomas C. Resta RNAi Interference in Cardiovascular Disease Zhongjie Sun
Wednesday April 28	New Insights into the Pulmonary Circulation John West and Frank Powell A. Clifford Barger Memorial Symposium: New Insights into the Relationship Between Sodium Metabolism and Blood Pressure Regulation Michael H. Humphreys and Peter Bie

Aging, Gender and Sex Differences Track

Sunday April 25	Age, Sex, and Control of Breathing Evelyn Schlenker
Tuesday April 27	Habitual Exercise and Arterial Aging Douglas R. Seals and Hirofumi Tanaka Sex steroids in Cardiovascular-Renal Physiology and Pathophysiology Barbara T. Alexander and Donna Korzick
Wednesday April 28	The role of the ubiquitin proteasome system in cardiac disease, diabetes, and aging Monte S. Willis and Xuejun Wang Sarcopenia: Signal Transduction and Metabolism in Senescent Skeletal Muscle Thomas H. Reynolds

Non-Track Sessions

<p>Sunday April 25</p>	<p>Endoplasmic Reticulum Stress at the Crossroad Between Fatty Liver, Leptin Resistance, Obesity and Diabetes Ivan Torre-Villalvazo</p> <p>Extracellular Matrix and Pathology of Cardiovascular Disease Jason Gardner and Pamela Lucchesi</p> <p>History of Comparative Physiology David Goldstein</p> <p>Update on Prorenin and Its Receptor Janos Peti-Peterdi and Genevieve Nguyen</p>
<p>Monday April 26</p>	<p>Cannon's Voodoo Death 2010 William T. Talman and Alan Kim Johnson</p> <p>Humoral Factors in Renal Injury and Hypertension Joey Granger</p> <p>Regulation of Neuronal Cell Volume: From Activation to Inhibition to Degeneration Glenn Toney and Sean Stocker</p>
<p>Tuesday April 27</p>	<p>Cardiovascular Consequences of the Metabolic Syndrome David Stepp and Jefferson Frisbee</p> <p>Coordinate Regulation of Vascular Smooth Muscle Gene Expression, Cell Phenotype, and Vessel Function William Pearce</p> <p>Intrinsic and Extrinsic Regulation of Activity in the Hypothalamus: Mechanisms and Consequences Colin Brown and Mike Ludwig</p> <p>The Control and Consequences of Renal Electrolyte Transport Robert Hoover and John Geibel</p> <p>Wiggers Award Featured Topic: Hypertension, Inflammation and Adaptive Immunity Julian Lombard and David Harrison</p>
<p>Wednesday April 28</p>	<p>Physiological Role of Vascular Endothelial Growth Factors as Homeostatic Regulators David Bates</p> <p>Regulation of Vascular Caliber and Contractility Ed van Bavel and Michael Hill</p> <p>The Brain, Behavior and Autonomic Function in Health and Disease Angela J. Grippo and Julia A. Moffitt</p>



WEH DSI 2009 Trainee Award Winners

Top Row: Joey Granger, Univ. of Mississippi Medical Center; David Mattson, Med. Coll. of Wisconsin; David Brooks, Johnson & Johnson WEH chair; Ray Furchak, DSI; Alicia McDonough, Univ. of Southern California; Jennifer Pollock, Med. Coll. of Georgia.

Bottom Row: Sydney Murphy, Univ. of Mississippi Medical Center; Carlos Schreck, Med. Coll. of Wisconsin; Marcia Venegas-Pont, Univ. of Mississippi Medical Center (Postdoctoral Winner); Anne Riquier, Univ. of Southern California (Predoc Winner); Carmen De Miguel, Med. Coll. of Wisconsin; Analia Loria, Med. Coll. of Georgia.



2009 WEH New Investigator Award winner Carol Moreno-Quinn from the Medical College of Wisconsin and 2009 Ernest H. Starling Distinguished Lecturer Alicia McDonough from the University of Southern California receiving their awards from former WEH Chair David Brooks during EB2009.

Other Pictures from EB2009



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