

The American Physiological Society



WATER AND ELECTROLYTE HOMEOSTASIS SECTION NEWSLETTER

OCTOBER 2008

News from the Chair, David P. Brooks



I look forward to seeing you all at the Experimental Biology meeting in New Orleans next April. Our Joint Programming Committee Representative, Jane Reckelhoff, has been working on the program and I strongly encourage you to submit your abstracts to the WEH-sponsored categories as listed below. We are delighted to announce that **Dr. Alicia McDonough, Professor at the Keck School of Medicine USC, will be the 2009 Starling Lecturer** (details on page 3). One of the highlights of last year's EB meeting was the second annual **DSI-WEH Trainee Awards Symposium** held on Saturday afternoon and attended by 70 to 80 people. We are most grateful to

Data Sciences Inc. who have agreed to sponsor the Trainee Awards Symposium for a third year. I urge Students and Fellows to apply for this award which includes the opportunity to present your work in a dedicated oral session (see page 4 for details). **Nominations are also needed for the 2009 New Investigator Award.** Please submit nominations online (see page 4 for details). Finally, in the next few weeks we will be holding the election for the Chair of the Section. This person will take over after the 2009 EB meeting. Your Steering Committee has selected two outstanding candidates, Dr Michael Brands and Dr Jane Reckelhoff, both of whom have served the section in an exemplary fashion. Each has provided a short biography for the newsletter. The election will be organized by the APS office.

Nominees for Section Chair



Dr. Mike Brands, Professor of Physiology, Medical College of Georgia, Augusta GA

Dr. Brands earned the Ph.D. in Physiology 1988 under Dr. Ron Freeman (WEH) at Missouri, received postdoctoral training under Dr. John Hall (WEH) at Mississippi, and remained there on faculty until moving to MCG as professor of physiology in 2000. **Service, APS:** APS WEH Regular Member since 1991; AJP Regul. Integr. Comp. Physiol. Editorial Board 1993-present; APS Animal Care and Experimentation Comm. 2001-03; WEH rep to APS Committee on Committees 2003-05; WEH rep to APS Joint Programming Committee 2005-07; WEH Steering Committee 2002-07; APS Minority Travel Fellow Mentor 2005; APS Postdoctoral Fellowship Research Award reviewer 2007; APS Porter Fellowship Mentor, 2006-07; and APS Public Affairs Committee, 2008-11. **Other selected national service:** American Heart Assn (AHA)

Nutrition Committee, 1999-present; AHA study section chair/co-chair 2005-present; Hypertension Editorial Board, 2002-present; JASH Editorial Board, 2007-present; NIH PBKD study section regular member 2004-07; and VA Nephrology Merit Review regular member 2004-07. **Selected university service:** Physiology Graduate Program Director, 1998-2007; Chair, Faculty Grievance Committee, 2005-present; Chair Campus Review Body (student dismissal appeal), 2005-present; Director, Medical Physiology course, 2007-present; MCG Research Institute Board of Directors, 2005-present; and School of Medicine Curriculum Oversight Committee, 2007-present. Teaching or have taught physiology in Schools of Med, Dent, AHS, and GS since 1987. **Research:** Continuous R01 support as PI since 1997: HL56259-11, Mechanisms for Cardiovascular Control Early in Diabetes, and Project Leader on P01HL74167, Cytokines and Angiotensin II-induced Hypertension. Expertise is chronic CV/renal models in mice, rats, and dogs, and have published senior author papers in 4 AJP journals: Renal, Endo, Heart, and Regul.. Graduated 2 Ph.D. students in last 2 years. Married (Kelley) 25 years, 4 children, ages 13-21.



Dr. Jane F. Reckelhoff, Professor of Physiology and Biophysics, University of Mississippi Medical Center, Jackson, MS.

Dr. Reckelhoff received a Ph.D. in biochemistry from the Medical College of Virginia/Virginia Commonwealth University. After a postdoctoral fellowship at West Virginia University, she joined the faculty in Jackson in January 1991. Dr. Reckelhoff has been the recipient of several awards for her research, including the Harry Goldblatt Award in Cardiovascular Research, from the American Heart Association Council for High Blood Pressure Research. Dr. Reckelhoff's research is on the role played by sex steroids in control of blood pressure and renal injury and the mechanisms responsible for postmenopausal hypertension. Her work is supported by NIH. Dr. Reckelhoff has served on many committees of the American Physiological Society (APS). She was secretary/treasurer for the Water and

Electrolyte Homeostasis section (WEH), served as WEH representative to Committee on Committees, and is currently representing WEH on the Joint Program Committee. She is also the chair of the Women in Physiology Committee. In addition, Dr. Reckelhoff has been involved in the APS Professional Skills Training Project since its inception and has participated as a lecturer in the Professional Writing workshop.



WEH-Sponsored Sessions at Experimental Biology 2009

Programming-EB 2009 –Janie Reckelhoff

WEH will have a very exciting meeting at EB2009. We will have 1 symposium and three Featured Topics. There are also several Cross-sectional Symposia that will likely interest the WEH membership. **Abstract deadline for EB2009 will be November 5, 2008.**

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 2009 meetings will be:

- 1. Starling Lecturer:** *Alicia McDonough (USC).*
- 2. Cross Sectional Symposium:** ENaC/ASIC Proteins as Cardiovascular Sensors – Organized by *Heather Drummond*. Speakers: *Marcelo Carattino (Univ of Pittsburgh), Zhiyong Tan (Univ of Iowa), Shawn Hayes (Penn State), Samira Grifoni (Univ of MS Med Ctr).*
- 3. Sectional Symposium:** Angiotensin II Type 2 Receptor: Role in Renal/Cardiovascular Function and Blood Pressure. Organizers: *Tahir Hussain and Helmy Siragy*. Speakers: *Robert Widdop (Monash Univ), Rhian Touyz (Univ of Ottawa), Helmy Siragy (UVA), Tahir Hussain (Univ of Houston).*

Featured Topics (Abstracts needed to select speakers)

- 1. Role of Sex Seroids in Cardiovascular Physiology and Pathophysiology:** Organizer: *Mike Ryan*. Invited Speaker: *Karen A. Gould (Univ of Nebraska)*
- 2. Imaging in Renal Physiology and Pathophysiology:** Organizers: *Alejandro R. Chade and Radu Iliescu*; Invited speakers: *Lilach Lerman (Mayo Clinic) and Janos Peti-Peterdi (USC).*
- 3. Hypertension:** Organizers: *Jane Reckelhoff and Christine Maric*. Invited speaker: *David Harrison (Emory).*

To be programmed in the poster sessions, please select topic categories under the WEH heading in the EB 2009 Call for Abstracts booklet or EB web site when you submit your abstracts:

Featured topics

- 1235-APS Role of sex steroids in cardiovascular physiology and pathophysiology
- 1236-APS Imaging in renal physiology and pathophysiology
- 1237-APS Hypertension

Posters:

- 1238-APS Inflammatory mediators in control of cardiovascular and renal function.
- 1239-APS Neural control of blood pressure and fluid volume homeostasis
- 1240-APS Renin-angiotensin system in regulation of blood pressure and renal function
- 1241-APS Sex steroids in cardiovascular-renal physiology
- 1242-APS Water and electrolyte homeostasis

EB 2010 Anaheim, CA (April 24-28, 2010)

Just a note about programming for WEH in the upcoming EB2010. This will be an anniversary year for Dr. Ernest Starling's work. The History of Physiology section would like to collaborate with WEH and Renal sections to develop programming to honor Dr. Starling. Please be thinking about Cross-sectional symposia and Featured topics that would be appropriate.



**2009 Ernest H. Starling Distinguished Lectureship
Alicia McDonough, PhD**

We are honored to have Dr. Alicia McDonough, Professor of Cell and Neurobiology from the USC Keck School of Medicine present the Ernest H. Starling Distinguished Lecture at the 2009 Experimental Biology meeting. Her presentation will be titled "***Life in the fast lane: Sodium transporter traffic regulates blood pressure and volume.***" Dr. McDonough's research program has focused on the molecular mechanisms responsible for homeostatic control of extracellular Na⁺ and K⁺, blood pressure and volume, and how these are disrupted in disease states and can be corrected therapeutically. Her research program has been and is currently funded by NIH, NSF, and AHA. She has received numerous awards for her

research and teaching, and she currently serves as an Associate Editor for *the American Journal of Physiology: Cell Physiology*. Dr. McDonough will also attend our annual business meeting/luncheon on Sunday, April 19th where she will meet with trainees and WEH members.

APS Research Recognition Awards Applications Online

APS Awards may be applied for online at the time of abstract submission. Please see details at the APS website, www.the-aps.org or www.the-aps.org/awardapps.



DSI-WEH Trainee Finalist Awards Symposium at EB 2009

All students and post-doctoral fellows are encouraged to check the WEH Awards box when submitting their abstracts. Abstracts will be judged and finalists will be named. Finalists will present their work in the DSI-WEH Student and Fellow Award Symposium on Saturday, April 18, 4:00 pm with a 7 min oral presentation. **Data Sciences, Inc (DSI) is co-sponsoring the Awards Symposium with an unrestricted educational grant.** The Award winners will be announced at the WEH Business Luncheon on Sunday, April 19, 2009. ***Make plans to attend the DSI-WEH Finalist Awards Symposium on Saturday, April 18 and WEH Business Luncheon on Sunday, April 19.***

2009 WEH New Investigator Award



Nominations are being solicited for the 2009 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 5^h.

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 David Brooks or Tom Cunningham for questions.

EB 2009 WEH Business Luncheon Sunday, April 19th 2009

Tom Cunningham, WEH Secretary/Treasurer

Please mark your calendars for the Annual WEH Business Luncheon at EB 2009 that will take place on **Sunday, April 19, 2008 at 11:30 am to 1:00 pm at the Plimsoll Club**, 2 Canal St., 30th Floor, New Orleans, LA 70130 (<http://www.plimsoll.com/map.html>). The luncheon cost is \$5 for Students and Post-doctoral Fellows and \$20 for all other attendees. The DSI-WEH Student and Fellow Awardees will be announced at the luncheon. Alicia McDonough, 2009 Starling Lecturer, and the 2009 WEH New Investigator will attend the luncheon and be presented with their awards as well.

Be sure to check out the “Highlights from EB 2008” at the end of the newsletter from the 2008 WEH Business Luncheon.



Liaison with Industry Committee (LWIC)

Maggie Alonso-Galicia, WEH Representative

The Liaison with Industry Committee (LWIC) is committed to fostering interactions between the APS and industry. Below are some LWIC-sponsored events for Experimental Biology 2009 that you won't want to miss!

Symposia 2009: The LWIC is continuing its tradition of sponsoring high quality symposia relevant to industry and academic scientists. The annual LWIC Symposium at EB '09 is entitled “Molecular Imaging of Physiological Processes in Drug Discovery”. The symposium will highlight recent advances in the field of In Vivo molecular imaging of disease processes, biomarkers, and novel therapeutic targets

and has commitments from *Dr. William Strauss, M.D. (Memorial Sloan-Kettering Cancer Center)*, *Dr. Adriana Maggi, Ph.D. (University of Milan)*, *Dr. Paul Acton, Ph.D. (Johnson & Johnson Pharmaceuticals)*, and *Dr. Farouc A. Jaffer, M.D., Ph.D. (Harvard Medical School)*.

The committee has also successfully competed for the EB '09 Translational Physiology symposium; it is entitled “Fibrosis: Signaling, Physiology, and Therapies”. The symposium will discuss recent advances in the field of pathological fibrosis and potential therapeutic approaches to its treatment. Speakers for the Translational Physiology Symposium include *Dr. Scott L. Friedman, M.D. (Mount Sinai School of Medicine)*, *Dr. Eric G. Neilson, M.D. (Vanderbilt University School of Medicine)*, *Dr. Scott Lonning, DVM, Ph.D. (Genzyme)*, and *Dr. Kevin K. Brown, M.D. (National Jewish Medical and Research Center)*.

Novel Disease Model Award: A reminder that abstract submissions to EB '09 are NOT that far away! The Novel Disease Model Award, sponsored by the LWIC and the APS, recognizes one graduate student (\$500) and one postdoctoral fellow (\$800) who submit the **best abstract** describing a disease model that is novel or has significant potential to be applied to the drug discovery process. The application for the award can be found on by visiting the APS website and following the "Section Awards" link ("Physiologists In Industry") from the EB'09 page, or by clicking on the "Committees" tab on the APS homepage and going to the LWIC page.



WEH Section Committee on Committees

Jennifer Pollock, WEH Committee on Committees Representative

YES, you can serve on APS committees and make a difference! Now is the time to nominate yourself or someone else to serve on the various standing committees of APS. 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 (I would be happy to do this for you). Both forms can be found at www.the-aps.org/committees/nominate.htm. Please send me the forms (jpollcock@mcg.edu) when they are completed so I can submit them 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 Data Sciences, Inc / Water & Electrolyte Homeostasis Section Research Recognition Awards. We are very grateful to Data Sciences, Inc for their continued support of this award program. The deadline for abstracts and award applications is Nov. 5, 2008.

At EB 2009, the Trainee Advisory Committee symposium will be "Mentoring Strategies: Beyond the Bench." Invited speakers will discuss 1) The value of mentoring trainees and effective approaches to mentoring ; 2) Skills important for supervising employees in any leadership environment, i.e. academic, government, industry; 3)

Capitalizing on diverse personalities in the work environment; and 4) Constructive approaches to conflict resolution. Also, you can see the powerpoint presentations and hear audio of previous sessions, including last year's symposium on "Marketing yourself on paper for academic positions," on the APS website.

The Trainee Advisory Committee Early Career Professional Service Award 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 23, 2009.

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

Also, 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 2010. See <http://www.the-aps.org/committees/nominate.htm> for details. The deadline for submitting the nomination form is January 16, 2009. Please contact me or Jennifer Pollock (Committee on Committees Representative) for more information.

The APS is now on Facebook! Feel free to post items on the discussion board, write on the Wall, and post items of interest to other physiologists. Also, check out the re-designed trainee website <http://www.the-aps.org/trainees/>, and subscribe to the Trainee ListServ. Please contact me if you have any questions or suggestions.

2008-09 Steering Committee Representatives



The 2008-09 Steering Committee includes At-Large Councilor **Carolyn Ecelbarger (left)**, International Representative **Peter Bie (center)** and Translational Representative **Michael Humphreys (right)**. The Steering Committee would like to thank former At-Large Councilors **Dave Mattson** and **Tom Cunningham** for their service. *If you are interested in serving as an At-*

Large Councilor please contact a member of the steering committee.

Notes from Your Translational Physiology Representative Michael Humphreys

As most of you know, the WEH Steering Committee added two new positions as Councilors last year, an International Representative (Peter Bie) and a Translational Physiology Representative. I was honored to accept this latter position, and have been thinking a lot about translational physiology and translational research in general, and what they mean for our Section. With these heady phrases it behooves us to define what is meant by translational research. Like many things in life, we usually know what it is even if we can't spell it out precisely. The old rubric of "bench to bedside", while still useful, can be expanded a little: basic science (e.g., gene regulation, cell signaling pathway) to translational science (e.g., animal model, drug development) to clinical science (testing in humans and clinical trials). Since most of us in WEH use animal models, it is (to me) a safe bet that most of us are doing translational research. However, restriction of the definition to studies in animals will miss important translational research, for example cell culture models. The Associate Chair for Clinical and Translational Research in my Department here at UCSF defines it as "Translation of novel findings obtained from basic research laboratories into testable hypotheses for evaluation in clinical trials in human subjects." The NIH waxes quite elegant on the subject, as might be expected; go to <http://nihroadmap.nih.gov/clinicalresearch/overview-translational.asp>

What about the WEH Section and translational research? As mentioned above, it is my belief that most of us are engaged in the conduct of translational scientific research, and that there are at least three ways that this can be recognized and built upon. First, we hope to feature a translational research symposium at Experimental Biology every other year or so, oriented to cutting edges of integrative physiological regulation our Section is so strong in; at least one of the talks at this symposium would report on clinical research. Many of you will remember that Translational Physiology was one of the featured tracks in EB 08 last spring. Second, we should be able to partner with other Sections and Societies which hold a big stake in translational science; I think in particular of the American Federation for Medical Research which is now using EB as the venue for its annual meeting and which has organized symposia in the past in the area of translational research. Third, it is my hope that resources of use to investigators in translational science can be published in our newsletter on a regular basis. One such resource is the NIH's Rapid Access to Interventional Development (RAID) Pilot Program (<http://grants.nih.gov/grants/guide/pa-files/PAR-07-358.html>) which seeks to reduce some of the common barriers between laboratory discoveries and clinical trials for new therapies; applications under this program will be accepted until 2011. NHLBI signed onto this program earlier this year: <http://grants.nih.gov/grants/guide/notice-files/NOT-HL-08-111.html>

I hope many of you will contact me with ideas for topics and speakers for a WEH translational science symposium for EB 2010, and also send me the links to resources you think might be useful for Section members. I look forward to hearing from you at mhumphreys@medsfgh.ucsf.edu.



AJP: Regulatory, Integrative and Comparative Physiology

Curt Sigmund, PhD; Editor-In-Chief

Greetings from AJP: Regulatory, Integrative and Comparative Physiology. I can report that the journal is doing well. Our 2007 Impact Factor is 3.66, and perhaps more importantly our submissions are increasing. We received nearly 900 submissions from July 2007 to June 2008, and we are on track to equal or surpass that number this year. Through December 1, 2008, we will be continuing our experiment to solicit ideas for review articles. This "Call for Proposals for Review Articles in Integrative Physiology" amounts to a presubmission inquiry. Details regarding submission of such an inquiry are on our website (<http://www.the-aps.org/publications/ajpregu/proposals.htm>). So far, we have commissioned about 10 review articles as a result of these proposals and have obtained a number of additional proposals that are under consideration.

Curt Sigmund (cont.)

I would like to take this opportunity to thank all WEH members who have contributed to our continuing success and remind you to consider submitting your manuscripts to the *Water and Electrolyte Homeostasis* section of *AJP: Regulatory, Integrative and Comparative Physiology*. I have come to appreciate the kind words received from authors regarding the review process and their experience with *AJP: Regulatory, Integrative and Comparative Physiology*. I look forward to another year as Editor of *AJP: Regulatory, Integrative and Comparative Physiology*. Please contact me directly with comments, concerns, and, most importantly, ideas.

Highlights from Experimental Biology 2008

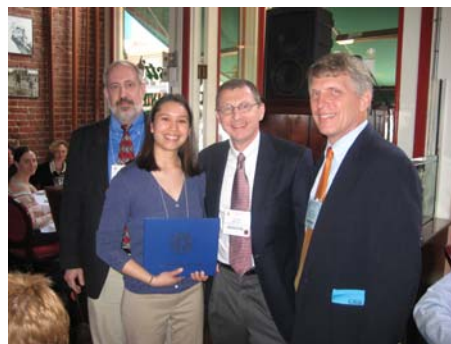
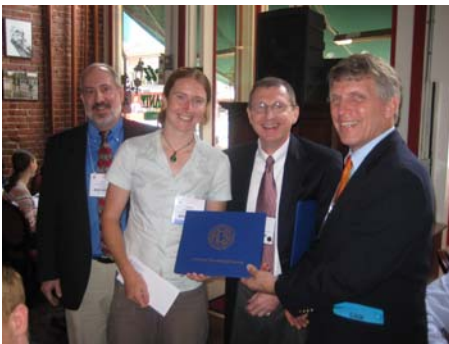


Dr. David Brooks presenting the 2008 Starling Award to Dr. Joey Granger.



Dr. David Brooks presenting the 2008 WEH Young Investigator Award to Dr. Mike Ryan.

2008 DSI-WEH Trainee Award Winners



2008 DSI-WEH Awards were presented at the business luncheon. The winners are pictured with Tom Cunningham (Awards Chair), David Brooks (Section Chair) and Steve Hachtman from DSI. Top row from left to right: Dr. L. Tang (Wake Forest), Dr. Jeffery Gilbert (Univ. of Mississippi) and winner Dr. T Rieg (UCSD). Bottom row: F McBryde (Univ. Auckland) and winner B. Houghton (Univ. Coll Cork).

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