Greetings from the CNS Section Chair
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A highlight of each Experimental Biology Meeting is the Joseph Erlanger Distinguished Lectureship. Dr. Barry Levin will give this lecture at EB2014 for his work related to central control of glucose sensing and homeostasis. A new addition to the CNS Program this year is an abstract-based session that will immediately follow the Erlanger Lecture and that Dr. Levin will chair. The abstracts were selected by the CNS Program Committee and Dr. Levin.

Immediately after the Erlanger Lectureship and abstract-based session, the CNS section will host our social and awards banquet. Please join us to recognize Dr. Levin, the CNS New Investigator Awardee, our Research Recognition Awards, and our student Van Harreveld Awardee.

CNS Section Reception and Awards
Monday, April 28, 6:00 PM
San Diego Ballroom C, San Diego Marriott

2014 Joseph Erlanger Distinguished Lectureship of the APS Central Nervous System Section

Barry Levin, M.D.
Department of Neurology and Neurosciences
Rutgers New Jersey School of Medicine

Metabolic sensing neurons: multi-modal regulators of energy and glucose homeostasis

Monday, April 28, 2014; 3:15 PM
San Diego Convention Center Room 23

CNS Section Erlanger Minisymposium

- Korim WS, Bou-Farah L. McMullan S, and Verberne AJ. Orexnergic activation of medullary premotor neurons mediates the adrenal sympathoexcitation to hypothalamic glucoprivation.

- Mimee A, Ferguson AV. Glucose responsive neurons in the nucleus of the solitary tract are responsive to nesfatin-1.

- Rarick KR, Eisenhauer JA, Harder DR. Calcium signaling and glucose response is different in adult compared to neonatal rat astrocytes.
Experimental Biology 2014: CNS Programming

CNS Featured Topics and Symposia

Sunday, April 27, 10:30AM -12:30 PM
San Diego Convention Center, Room 26
Featured Topic: Sympathetic Mechanisms in the Etiology of Obesity-related Hypertension
Chairs: D. Sartor and S.D. Stocker
Speakers:  
S. Simonds (Central leptin actions to increase blood pressure)  
G. Head (Role of leptin and insulin signaling in sympathetic activation during onset of obesity hypertension)  
*4 submitted abstracts are programmed as 10-min oral talks

Sunday, April 27, 3:15-5:15 PM
San Diego Convention Center, Room 28B
Symposium: Epigenetic Regulation of CNS Function
Chair: William J. Martin
Speakers:  
T. Abel (Epigenetic mechanisms of memory storage)  
AE West (Roles for the methyl-DNA binding protein McCP2 in addictive-like behaviors)  
J. Hsieh (Harnessing adult neurogenesis by cracking the epigenetic code)  
G. Sadri-Vakili (Heritable alterations in the epigenome in response to cocaine)

Monday, April 28, 10:30AM-12:30 PM
San Diego Convention Center, Room 28B
Featured Topic: Control of metabolism and food intake
Chair: C. Madden
Speakers:  
H. Raybold (Plasticity in the vagal afferent pathway in obesity)  
C. Madden (Neural regulation of brown adipose tissue in obesity)  
*4 submitted abstracts are programmed as 10-min oral talks

Tuesday, April 29, 3:15-5:15 PM
San Diego Convention Center, Room 28A
Symposium: Recent advanced in hypothalamic signaling
Chairs: J.E. Stern and A.K. Johnson
Speakers:  
A.K. Johnson (Role of estrogen receptor subtypes in the paraventricular nucleus in protecting against experimentally-induced hypertension)  
JE Stern (Are mitochondria implicated in altered hypothalamic neuronal activity during heart failure)  
VM Pickel (Slow onset hypertension is dependent on NMDA receptor-mediated synaptic transmission linked with NO signaling and free radical production in PVN)  
EG Krause (Angiotensin type 1a receptors in the PVN protect against diet-induced obesity)
Other sessions of CNS interest

Sunday, April 27th
8:00AM -10:00 AM, San Diego Convention Center, Room 23
Symposium: Is the Kidney a Key Sensory Organ in Neurogenic Cardiovascular Disease?

10:30AM -12:30 PM, San Diego Convention Center, Room 25A
Featured Topic: NCAR Trainee Abstract Session

3:15PM -5:15PM, San Diego Convention Center, Room 25A
Featured Topic: Diverse Effects of Angiotensin Peptides on Autonomic Regulation in Health and Disease

Monday, April 28th
8:00AM -10:00 AM, San Diego Convention Center, Room 24
Carl Ludwig Distinguished Lectureship of the APS NCAR: Mohan Raizada

8:00AM -10:00 AM, San Diego Convention Center, Room 28B
Featured Topic: New Insights into the Chemical Control of Breathing and Blood Pressure

10:30AM -12:30 PM, San Diego Convention Center, Room 20A
Symposium: Autonomic Regulation of the Immune System in Health and Disease

3:15PM -5:15PM, San Diego Convention Center, Room 25B
Featured Topic: Sex Matters When It Comes to Blood Pressure Regulation

Tuesday, April 29th
10:30AM -12:30 PM, San Diego Convention Center, Room 27
Symposium: Sympathetic Vascular Transduction: Bridging the Divide in Blood Pressure Regulation

3:15PM -5:15PM, San Diego Convention Center, Room 25C
Featured Topic: Defining the Thermoneutral Zone of Laboratory Mice

Wednesday, April 29th
8:00AM -10:00 AM, San Diego Convention Center, Room 24
Featured Topic: Carotid Body Chemoreceptors: Beyond the O₂ Frontier
Physiologists in Industry Committee
James Herrington, Ph.D.
The APS PIC is sponsoring a Symposium at EB 2014 entitled "NO, CO and H₂S: Toxic Gases, Gasotransmitters and Therapeutic Targets" (chaired by Kenneth R. Olson, Ph.D. and Catharine G. Clark, Ph.D.) on Sunday, April 27 at 8 – 10 am in the San Diego Convention Center, Room 24. Nitric oxide (NO), carbon monoxide (CO), and hydrogen sulfide (H₂S) are physiologically relevant signaling molecules that mediate different cellular regulation and communication. Recent studies have reported that these gasotransmitters may also be involved in a wide range of disease signaling processes from reperfusion injury, angiogenesis, inflammation, diabetes, oxygen sensing, cell cycling, ER stress and programmed cell death. The recent development of specific NO-, CO-, and H₂S-“donating” drugs has provided a novel pathway for regulation of gasotransmitter signaling. Chemically linking these compounds to other pharmaceuticals such as NSAIDs, angiotensin receptor inhibitors and others, has provided novel mechanisms with which to deliver multifaceted therapeutics. In this symposium, speakers will describe specific applications of the gasotransmitter-donating drugs and their therapeutic potential.

The PIC Novel Disease Model Award is sponsored by Novo Nordisk Research Centre China, a world leader in developing innovative treatments for Diabetes. The PIC Novel Disease Model Award will grant a $500 and $800 award to a graduate student and a postdoctoral fellow, respectively, who submit the best abstracts at EB 2014 that describe a novel disease model. The awardee for pre-doctoral student is Ellen Gillis, University of Mississippi Medical Center, Jackson, MS for her abstract entitled “The Dahl S rat on normal salt diet is a spontaneous model of preeclampsia” and the awardee for postdoctoral student is Suttira Intrapad, Ph.D., University of Mississippi Medical Center, Jackson, MS for her abstract “A new model of intra uterine growth restriction (IUGR) induced by reduced uterine perfusion in the mouse programs hypertension in the IUGR mouse offspring” Both awards will be presented at the APS Business Meeting.

You're invited! Come meet, eat and socialize with your fellow Physiologists who are working in the corporate, industrial, academic, or government sector. The 13th Annual Physiologists in Industry Committee Mixer will feature free hors d'oeuvres along with information on the roles of Physiologists in Industry. It will be held at the San Diego Marriott Marquis & Marina (Sunday, April 27, 6:45 – 8:00 pm, Malibu Room). This is a great opportunity to network with industry and academic APS members alike – we hope to see you there!

The APS PIC meeting is scheduled on Sunday, 2:30 - 4:00 pm in the San Diego Marriott Marquis & Marina, Newport Beach Room – this is the committee’s annual opportunity to have a face-to-face meeting to discuss committee business and new initiatives. Please feel free to contact your PIC section representative if there are issues to be brought to the attention of the PIC.

Education Committee
J. Michael Wyss
Several APS Education Committee activities will occur throughout EB 2014, but Sunday will mark the biggest day of these activities. At 7:00 am PhUN Week (Physiology Understanding Week) will be highlighted at the PhUN Week breakfast and poster session in the Marriott. During this session about 75 presenters will give you an idea of the variety and breadth of the PhUN week sessions which have grown in the last 9 years to include participation by about 12,000 K-12 students and hundreds of researchers guiding them in their discovery of physiological principles. This is a great session to start your planning for fall 2014 PhUN Week programs at your institution.
At 3:00 pm on Sunday, the Education Committee will host the Undergraduate Poster Session and the Bruce Awards Presentation (4:00 pm) in the Sails Pavilion in the center of the San Diego Convention Center. This is a great opportunity to support the next group of students who will enter the physiology graduate education arena. The work that these students will present is exceptional, and the winners of the Bruce Awards are already doing senior graduate level work. These sessions provide great opportunity for graduate faculty members to encourage these great students to pursue graduate research education.

The APS Education Office and Committee have also continued to develop several short courses that focus on critical professional skills (http://www.the-aps.org/education/profskills/) that are available as both online training and face-to-face courses. This year, the Teaching Section and the Careers and education Committees will offer a new education PST at the College of the Atlantic in Bar Harbor, Maine in June 2014 that will target senior graduate students, postdoctoral fellows and faculty just starting out in their career. The course, “Becoming an Effective Teacher” will have participants working directly with a highly experienced teacher on developing teaching skills. Pre- and post-workshop assignments will be required, as well as those that are part of the in-person course. As part of the course, students will develop a micro-teach demonstrating their understanding of effective teaching.

Other PST courses include “Interviewing for an Academic Position,” “Introduction to Poster Presentations,” and “Writing and Reviewing for Scientific Journals,” targeted toward upper-level graduate students and beginning postdoctoral fellows, who are working on their first first-author manuscript. Find this and other upcoming APS education Committee courses at http://www.the-aps.org/education/profskills/upcoming.htm and encourage your trainees and colleagues to utilize these excellent programs.

Finally, the Committee will award its fourth annual ADInstruments Award that recognizes an APS member who demonstrates the greatest potential for incorporating innovative teaching techniques and technology in undergraduate physiology education. The awardee primarily targets early-stage faculty and is supported by ADInstruments and Tony McKnight. We encourage all CNS members who do undergraduate teaching to consider applying for this award.

Porter Physiology Development and Minority Affairs Committee
Margarita Curras-Collazo, Ph.D., CNS Representative

Be Counted Campaign! At EB 2012, the Porter Physiology Development and Minority Affairs Committee launched the ‘Be Counted’ campaign. This on-going effort seeks to encourage all APS members to update their membership profile online to provide information on their gender and racial and ethnic groups. Significant proportions of both minority and majority APS members do not provide this information. This makes it difficult for APS to track progress in increasing diversity among physiologists, to gauge the efficacy of diversity programs and to secure external funding for diversity programs. It makes it difficult to reach out and encourage minority and female trainees to participate in APS scientific and professional development programs. Finally, it makes it difficult to identify potential candidates for committees, awards, and elected positions. The Campaign will be in full swing at EB 2014 to encourage all APS members to update their membership profile on-site at the meeting. For more information go to WWW.THE-APS.ORG/BECOUNTED
Training Advisory Committee
Erica Dale, Ph.D., CNS Representative
Trainees! EB 2014 is just around the corner! We’ve got some great opportunities for mingling, physiology and fun! Keep these events in mind as you start to plan for the meeting:

**Sunday, April 27th, 7:00am** – San Diego Marriott Marquis and Marina, Marina Ballroom
Did you participate in Physiology Understanding Week? Are you interested to see what it’s all about and how to become involved? Come to the PhUn Week poster session!

**Sunday, April 27th, 3:30pm** – Sails Pavilion SDCC
Come meet and support undergraduates who have been selected to receive the David Bruce Outstanding Undergraduate Award. This event has always been a great success and a great way to encourage our future physiologists. Your very own CNS section sponsors an award annually!

**Monday, April 28th, 6:00pm** – CNS section awards and social – San Diego Marriott Marquis and Marina, Ballroom
Come to this free mixer and meet with fellow section members in a fun and relaxed environment.

**Tuesday, April 29th, 8:00am** – APS Careers Symposium: Conscious Choice and Serendipity in Your Career: A Panel Discussion

**Wednesday, April 30th, 10:30am** – APS Trainee Symposium: The Other Side of the Submit Button: The Ins and Outs of the Manuscript Review Process
Come see what publishing is all about in your very own trainee symposium.

There are over 100 trainee related events to jump into (for a complete listing, look to the APS website). As your trainee representative to the CNS Section Steering Committee and the APS Trainee Advisory Committee, I am always here to answer questions and to help make your experience with the CNS section everything you want it to be. Come find me at the CNS Section Banquet on Monday night! And always feel free to contact me at edale@ucla.edu. See you at EB 2014 in beautiful San Diego!

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Get Involved!
Join an APS committee!

The CNS section steering committee is looking for people to become involved in the APS and represent CNS-related research to the Society. If interested contact Sean Stocker sstocker@hmc.psu.edu or any member of the steering committee! Individuals can self-nominate.
CAREER CORNER - Spotlight on grand achievements

Congratulations to Bill Yates as the new Editor-in-Chief for the Journal of Neurophysiology.

Kirsteen Browning is the new Joint Program Committee representative.

Richard Wainford is the new Chair of the Awards Committee.

Please Help Sponsor our CNS Awards!!!

The CNS Section actively seeks donations to sponsor research awards which recognize outstanding contributions of undergraduate students, graduate students, postdoctoral fellows and new investigators.

Please follow the link: https://ebus.the-aps.org/ebuspprod/OneClickDonation/tabid/229/Default.aspx?ProductId=82

Donations are Tax-Deductible and used exclusively for the awards.
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