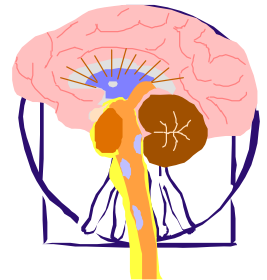


Neural Control and Autonomic Regulation Section

NEWSLETTER



October, 2008

HIGHLIGHTS OF EB 2008



The Carl Ludwig Lecture was presented by Dr. Patrice Guyenet, Professor of Pharmacology at the University of Virginia. Dr. Guyenet is an international renowned investigator, recognized for his contribution to our understanding of the CNS control of sympathetic and respiratory motor output. His rigorous approach is a model for both young and established scientists in the field of neural control of circulation. His work has recently been published in top tier general science journals and has brought renewed attention to the importance of autonomic regulation in health and disease. Dr. Guyenet's lecture was entitled "Retrofacial nucleus, central chemoreception and breathing automaticity" and this highly anticipated and attended talk was followed by a Carl

Ludwig mini-symposium and NCAR Special Topic chaired by Dr. Patrice Guyenet entitled "Respiratory control of sympathetic efferents by the brainstem".

2009 Carl Ludwig Distinguished Lecturer. The NCAR steering committee is pleased to announce that the 2009 Carl Ludwig Distinguished Lecturer will be Dr. Murray Esler. Dr. Esler's lecture will be entitled "Autonomic Dysregulation of Blood Pressure: High & Low". Dr. Esler is a clinical cardiologist and medical scientist, based at the Baker Heart Research Institute and the Alfred Hospital in Melbourne. Professor Esler's research interests include the causes and treatment of high blood pressure and heart failure, influence of aging on the human sympathetic nervous system and the effects of stress on the heart and blood pressure. He has obtained many awards including the Wellcome (Australia) Medal (1989), awarded annually for "the most outstanding biomedical research in Australia"; Ramaciotti Medal (1997), for excellence in biomedical research; Merck Sharpe & Dohme Award of the International Society of Hypertension (2000) and the Centenary Medal (2003) of the Government of Australia. We are pleased to have this opportunity to honor his outstanding contribution to our current understanding of blood pressure regulation.



PROGRAMMING FOR EB 09 is well underway. NCAR will host the Carl Ludwig Distinguished Lectureship, one symposium, one mini-symposium and three featured topics at EB09:

Sunday, April 19

- NCAR Symposium: "Direct Assessment Of Organ Specific Sympathetic Nervous System Activity In Normal And Cardiovascular Disease States" Chairs: Drs. Mark Knuepfer and John Osborn, 8-10 AM in Room 252-254.
- NCAR Featured Topic 1 of 3: "The Ganglionic Synapse: Passive Relay Or Locus Of Autonomic Control?" Chairs: Drs. Robin McAllen and Mark Chapleau, 3:15-5:15 PM in Room 235/236

Monday, April 20

- Carl Ludwig Distinguished Lectureship of the APS Neural Control & Autonomic Regulation Section: "Autonomic Dysregulation Of Blood Pressure: High & Low" by Dr. Murray Esler, 8-9 AM in Room 252-254.
- NCAR Mini-symposium: "Autonomic Mechanisms Of Hypertension: Reversal Of Pathophysiology & Blood Pressure Lowering With Therapeutic Devices" Chair: Dr. Murray Esler, 9-10 AM in Room 252-254.

Tuesday, April 21

- NCAR Featured Topic 2 of 3: "NCAR Trainee Topic Category" Chairs: Drs. Alison Kleiber and He Gu, 8-10 AM in Room 245.

Wednesday, April 22

- NCAR Featured Topic 3 of 3: "Neuroplasticity Of Autonomic Behavior In Health And Disease" Chairs: Drs. Benedito Machado and Nanduri Prabakhar, 8-10 AM in Room 239.

Other Programming of Potential Interest:

Sunday, April 19

- CNS Featured Topic 1 of 2: "Emerging Signaling Mechanisms in CNS Transmission and Plasticity" Chairs: Dr. Jeffrey Tasker, 10:30 AM – 12:30 PM in Room 245.

Monday, April 20

- CNS Featured Topic 2 of 2: "Control of Breathing in Chronic Diseases" Chairs: Drs. Lara Roberts DeRuisseau and Francis Golder, 10:30 AM – 12:30PM in Room 245.
- RESP Symposium "Cardiorespiratory Afferent Processing in the NTS: Not Just a Relay" Chairs: Drs. Donald McCrimmon and Judith Neubauer, 3:15 – 5:15 PM in Room 244.

Tuesday, April 21

- XSEC Symposium "Adrenal Corticosteroid Effects in the CNS on the Long-Term Control of Blood Pressure" Chair: Dr. Debbie Scheuer, 3:15-5:15 PM in Room 252-254.
- CV Featured Topic 3 of 7: "Donald Reis Memorial Trainee Symposium" Chair: Dr. Steven Jones, 10:30 AM - 12:30 PM in Room 238.

Wednesday, April 22

- CNS Symposium: "Development of AMPA Receptor-Containing Synapses in the CNS" Chair: Drs. Declan Ali and Lu-Yang Wang, 8-10 AM in Room 245.

ABSTRACT DEADLINE FOR EB09 is Wednesday, November 5th, 2008.

Submit your abstract and get registered for EB '09 at <http://www.eb2009.org/>

Consider applying for any of the 3 **awards** offered by NCAR. Your abstract must be submitted to an NCAR sponsored topic to be considered for these awards. Awardees are recognized at the NCAR Reception and Business Meeting.

Neural Control and Autonomic Regulation Section Awards

The **Michael J. Brody Young Investigator Award of the APS Neural Control and Autonomic Regulation Section** (\$500 plus reimbursement of the advance registration fee). The award is open to graduate students (post-candidacy exams), postdoctoral fellows, and clinical fellows who present and are first author on an abstract at Experimental Biology. The applicant or the abstract sponsor must be a member of APS.

The **Neural Control and Autonomic Regulation (NCAR) Section New Investigator Award** (\$1,000 plus reimbursement of the advance registration fee) recognizes an outstanding investigator in the early stages of his/her career. Candidates should be investigators who have made meritorious contributions to the area represented by the NCAR Section. They should not be above the rank of Assistant Professor or a comparable position in a research track at an academic institution or in industry (e.g. Scientist, Sr. Scientist, Research Investigator, etc.). Although this is not an abstract-based award, awardees are expected to attend EB and make an oral or poster presentation. The candidate must be an APS member in good standing with a primary affiliation in the Neural Control and Autonomic Regulation Section.

The **Neural Control and Autonomic Regulation Research Recognition Awards** (\$500 plus reimbursement of the advance registration fee) provides travel support to junior investigators to present meritorious research at the annual Experimental Biology Meeting. To be eligible, the investigator must have a Ph.D., M.D. or other professional degree with an academic rank or equivalent not higher than that of Assistant Professor and conduct either basic or clinical research in a field of neural control and autonomic regulation. Junior faculty members are particularly encouraged to apply for this award. Applicants must upload a copy of the first-authored abstract and their curriculum vitae.

Please visit the NCAR website for more details and to apply for one of our awards <http://www.the-aps.org/meetings/eb09/awards/ncar.htm>. Please direct any questions to Chet Ray at caray@psu.edu.

Liaison With Industry Committee (LWIC) Message

The LWIC is committed to fostering interactions between the APS and industry. 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. The LWIC also features a Translational Physiology symposium at EB09; it is entitled "Fibrosis: Signaling, Physiology, and Therapies". The symposium will discuss recent advances in the field of pathological fibrosis and potential therapeutic treatments. 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. Information and application for the award can be found at <http://www.the-aps.org/meetings/eb09/awards/lwic.htm>.

Time to Plan for Future EB Meetings

It's your turn! Now is the time to prepare a symposium or featured topic (FT) for EB 2010. Please visit the NCAR website to submit a symposium or FT: <http://www.the-aps.org/sections/neural/guide.htm> or contact Jason Carter jcarter@mtu.edu, Joint Programming Committee Representative or Jeff Potts, outgoing JPC Rep jepotts@hsc.unt.edu

STEERING COMMITTEE ELECTIONS will be held to replace our outgoing member Dr. Karie Scrogin. We all owe a great deal to Karie for her essential activities on behalf of NCAR. Nominees for the position are 1) Harold D. Schultz, Ph.D., Professor, Department of Cell & Integrative Physiology, University of Nebraska Medical Center; 2) Paul J. Fadel, Ph.D., Assistant Professor, Department of Medical Pharmacology and Physiology, Dalton Cardiovascular Research Center, University of Missouri-Columbia and 3) Eric D. Lazzarini, PhD, FAHA, Assistant Professor, Department of Pharmacology & Experimental Therapeutics, School of Medicine – Louisiana State University Health Sciences Center. The APS office will be distributing ballots in the near future. Synopses of the candidates' research interests and views on how they hope to promote the mission of NCAR are presented below.



Harold D. Schultz, Ph.D.
Professor, Department of Cell & Integrative Physiology
University of Nebraska Medical Center

Research Focus: I have a long-standing interest in neural control of cardio-respiratory function and its impact on cardiovascular diseases. I come from the classical school of 'fiber pickers' who have sought to better understand the nature of inputs to central autonomic reflexes that derive from cardio-pulmonary sensory endings in the heart, lungs and major vessels. My current focus is on the impact of cardiovascular disease, particularly that of chronic heart failure, on carotid body function and its relevance to sympathetic function. We try to take an integrative approach to address function from the molecular to the whole animal level.

Issues affecting NCAR: I believe our most important challenge is to recruit interest in our lines of study and elevate membership in our section. I do not have a magic formula to reach these goals, but I am willing to help to advance them as a member of the steering committee. Promoting interest with students and young investigators is a vital component. Elevating our presence at national/international meetings is another. We are making good progress in these areas already. We should continue to enhance our interactions and collaborations with other sections, with further emphasis on joint sessions with renal, respiratory, environmental and exercise, endocrinology and metabolism sections and hypoxia and physiological genomics groups, as examples, at summer conferences as well as EB. Award and recognition for graduate and undergraduate student research is another suggestion. I currently a member of the Chapter Advisory Group for APS, and was past president of the Nebraska Physiological Society.



Paul J. Fadel, Ph.D.
Assistant Professor, Department of Medical Pharmacology and Physiology
Dalton Cardiovascular Research Center, University of Missouri-Columbia

Research Focus: My research program focuses on the investigation of neural cardiovascular control in health and disease. Ongoing studies involve assessing sympathetic responses during various physiological manipulations in healthy subjects and patients with end stage renal disease, diabetes and heart failure. Currently, our major focus is on age-related alterations in the neural mechanisms that contribute to exercise-induced sympathoexcitation as well as the peripheral modulators of sympathetically-mediated vasoconstriction in contracting skeletal muscle.

Issues affecting NCAR: I would like to serve on the steering committee to help promote the importance of research on the autonomic nervous system and to assist in the programming of novel topics of autonomic neuroscience in health and disease at EB meetings. Also, I believe NCAR is a great section that needs to be effectively promoted to new members of the APS.



Eric D. Lazartigues, PhD, FAHA
Assistant Professor, Department of Pharmacology & Experimental Therapeutics

School of Medicine, Louisiana State University Health Sciences Center.

Research Focus: My research program focuses on the investigation of the neuro-control of the circulation with an emphasis on the renin-angiotensin system (RAS). Specifically, we are interested in the role of Angiotensin Converting Enzyme (ACE) 2 in the central nervous system and how it may modulate other RAS components in specific brain nuclei to affect the autonomic nervous system and baroreflex function. We are using a physiological genomics approach relying on transgenic mouse models and virus-mediated gene therapy to determine the importance of central ACE2 in neurogenic hypertension and other cardiovascular diseases.

Issues affecting NCAR: I would like to serve on the steering committee to promote integrative studies, addressing how modifying a single gene can affect function in the whole animal. In a time when funding is scarce, I believe that one of the challenges of NCAR is to erase the boundaries between the various fields and promote interaction. In addition, I would work towards promoting the work of the next generation of scientists and encourage their involvement in our society. I have been interacting with NCAR through the awards I received: New Investigator Award in 2003 and Recognition Award in 2004. Since 2008, I have been serving on the APS Award Committee.

CURRENT NCAR STEERING COMMITTEE

Chair and Section Advisory Committee Representative

Chester A. Ray, Ph.D. The Heart & Vascular Institute Pennsylvania St Univ Coll of Med 500 University Dr H047 Hershey, PA 17033-2390	717 531-5110 fax: 717 531-1792 caray@psu.edu	2009
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Past Chair

Alan F. Sved, Ph.D. Dept of Behavioral Neuroscience University of Pittsburgh 446 Crawford Hall Pittsburgh, PA 15260-0001	412 624-5043 fax: 412 624-9198 sved@pitt.edu	2009
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Committee on Committees Representative

Mark Chapleau, Ph.D. Univ of Iowa Coll Med Depts of Internal Med & Molecular Physiology and Biophysics 200 Hawkins Drive, 629 MRC Iowa City, IA 52242-1081	319 335-8958 fax: 319 353-6343 mark-chapleau@uiowa.edu	2009
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Joint Program Committee Representative- outgoing

Jeffrey T. Potts, Ph.D. Univ North Texas Hlth Sci Ct Dept Integrative Physiology 3500 Camp Bowie Blvd Fort Worth, TX 76107	817 735-2075 fax: 817 735-5084 jepotts@hsc.unt.edu	2008
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Joint Program Committee Representative- incoming

Jason Carter, Ph.D. Michigan Technological University Dept of Exercise Science, Health and Physical Education 1400 Townsend Drive, Dow 740 Houghton, Michigan 49931	906 487-2994 fax: (906) 487-3167 jcarter@mtu.edu	2011
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Liaison with Industry Committee Representative

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Trainee Advisory Committee

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Programming Committee

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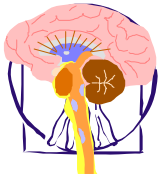
352-392-2783
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FUTURE MEETINGS

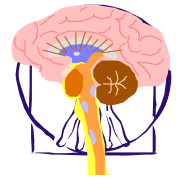
19th International Symposium on the Autonomic Nervous System will be held in Kauai, Hawaii, October 29 - November 1, 2008. Visit <http://www.americanautonomicsociety.org> for more information.

The International Society of Autonomic Neuroscience (ISAN) will hold the 6th Congress of ISAN in Sydney, Australia, September 1-4, 2009. More information available at <http://www.isanweb.org>.

Prior to the ISAN meeting is a satellite entitled "Autonomic adjustments to environmental challenges" in Newcastle, a coastal city just 160 km north of Sydney. This satellite meeting is being organized by Drs. Benedito Machado, University of São Paulo at Ribeirão Preto, Brazil, Pascal Carrive, UNSW, Sydney, and Eugene Nalivaiko, University of Newcastle. Please contact Dr. Nalivaiko at: Eugene.nalivaiko@newcastle.edu.au for more information.



NCAR Trainee Page



MESSAGE FROM THE TRAINEE REPRESENTATIVE

Chris Madden, Postdoctoral Fellow

It's that time of year again; time to put those data together for an abstract to Experimental Biology. Submit your abstract and get registered for EB '09 at <http://www.eb2009.org/> I'm certain it's going to be another great meeting.

And don't miss the opportunity to apply for an award at:
<http://www.the-aps.org/meetings/eb09/awards/index.htm>

Also, keep an eye out for the spring Trainee Newsletter, which will outline all of the trainee-relevant sessions at EB. If you would like to receive the Trainee Newsletter subscribe by sending an e-mail with "Trainee Listserv" in the subject line to: Education@The-APS.org.

Needed!

- Who: Neuroscientists to be Mentors
- What:
 - One-on-one, email-based mentoring
 - Provide information, encouragement, & support to:
 - community college students
 - undergraduate students
 - graduate students
 - postdocs
 - untured faculty
- Why:
 - To promote the retention and success of young scientists
 - Mentors are especially needed in Neuroscience
- Where: www.Mentornet.net
www.the-aps.org/trainees/index.htm
- When:
 - Now!
 - Only an 8 month commitment
 - Only 20 min/week (oftentimes less)

Wanted!

- Who: APS students to be mentees/protégés
- What:
 - One-on-one, email-based mentoring
 - Receive "real world" information, encouragement, advice
- How:
 - Fill out a Protégé Profile indicating:
 - Your interest in school decisions, work/family balance, and gender issues, etc.
 - Your ideal mentor (gender, field of work, location, ethnicity, alma mater)
 - Receive mentor profiles (minus the mentor's name) of up to 5 potential matches.
 - Choose a match, opt to let MentorNet make a match, or try again later.
- Where: www.Mentornet.net
www.the-aps.org/trainees/index.htm

APS is a proud MentorNet partner

I'm Chris Madden, your NCAR trainee representative, and I approve this message (BTW, don't forget to vote on Tuesday November 4th)

Please contact me (maddench@OHSU.edu) if you have questions or suggestions.