Greetings from the Chair!

PLAN AHEAD FOR OUR UPCOMING APS CONFERENCE!
Our very own Teaching Section (working with other APS committees and the APS Education Department) is sponsoring a new APS Conference on Teaching and Learning June 23-27, 2014 at the College of the Atlantic in Bar Harbor, ME.

The conference will provide two opportunities in one: a conference on the scholarship of teaching and learning (SOTL) for physiologists and a professional skills course on preparing future faculty for teaching for advanced graduate students, postdoctoral fellows, and early career faculty. While the two groups will meet separately during much of the daytime, there will be considerable socializing and sharing time around meals and in the evening so that both groups will freely interact.

The SOTL conference will include featured topics, symposia, keynote addresses, and poster presentations with a heavy emphasis on interactive/workshop opportunities. For those of you who regularly attend the quadrennennial IUPS Teaching Workshops, this will be an opportunity for more U.S. faculty to participate in a physiology education research conference without the high costs of travel.

SO PLEASE MARK YOUR CALENDARS FOR JUNE 23-27, 2014! The conference expenses will be minimal and include room and board so that only travel expenses will need to be arranged separately. If the conference is a success, APS Council is likely to allow us to have one every other year. For more information or to volunteer ideas for the conference, contact Barb Goodman at 605-677-5158 or barb.goodman@usd.edu
The immune system is a complex physiological system comprised of organs, cells, proteins and molecules that provide protection against disease. The innate immune system provides a rapid response and initial layer of defense against foreign pathogens. The adaptive, or acquired immune system, is highly specific with a memory allowing for rapid responses to repeated pathogenic exposures. Many of these immune system components are evolutionarily conserved across species and immune system dysfunction is widely recognized as having an important underlying role in the pathophysiology of disease. This includes diseases with cardiovascular, renal, metabolic, respiratory, gastrointestinal or central nervous system origins.

The intent of the EB2013 refresher course in physiology is to give a broad overview of immune system function, how it is regulated, and its causal role in the pathophysiology of disease. The course will begin with an overview of adaptive and innate immunity for the non-immunologist. Subsequently, neural control of immune system function and underlying mechanisms by which immune system activation promotes cardiovascular disease will be covered.

Bruce Award Judge for Undergraduate Posters

The APS Education Committee would like to invite you to serve as a Bruce Award judge for undergraduate posters during Experimental Biology. This year, we have 26 finalists vying for approximately 11 awards. The undergraduate students will be presenting their posters to groups of Education Committee and APS member physiologists on Sunday, April 21, from 8:30 am – 12:00 pm in the Boston Convention Center, East Registration area.

We understand that we are asking a great deal of you to take the time out of your EB schedule to help judge posters. However, the Education Committee feels that the benefits of encouraging undergraduate research outweigh the time involvement needed.

If you are available on that Sunday from 8:30 am – 12:00 pm and can help judge undergraduate posters, please let me know. We will be sending detailed information about the judging once we have all the judges identified. Thank you for your consideration of our request. We hope you can help out this year.

Best regards,
Melinda E. Lowy
Higher Education Programs Coordinator
mlowy@the-aps.org
301-634-7787

John F. Perkins Memorial Award

The John Perkins Award for International Physicians application deadline is April 15. The award supports family visits to the US for postdoctoral fellows and junior faculty. Scientists should be working for a minimum of 3 months in the U.S. Applications must be made jointly by the host, who must be an APS member, and the visiting scientist. The recipient receives funds not exceeding $5,000. Application information is available at http://www.the-aps.org/mm/awards/Other-APS-Awards/Early-Career-Professional#Perkins.
Claude Bernard Distinguished Lectureship

The 2014 Claude Bernard Distinguished Lectureship award is presented to an established investigator with a history of excellence in education who is making outstanding contributions to teaching and learning. The educator may be an APS member or a non-member nominated by a member. The awardee’s talk is expected to further interest in and enhancement of educational practices that are relevant to teachers of physiology. The award consists of a $1000 honorarium, up to $2000 travel reimbursement to Experimental Biology, complimentary registration to the meeting, and complimentary tickets to the Section dinner. Self-nomination is permitted for APS members.

Nominators must upload a nomination letter and nominee's curriculum vitae by May 15, 2013. Notification of the outcome of this award will be by June 1, 2013.

APS Physiologists in Industry Committee

The APS PIC is sponsoring a Symposium at EB 2013 entitled "Nrf2 Signal Pathway in Human Diseases and as Novel Therapeutics" (chaired by Eugene W. Shek, Ph.D. and Ira J. Smith, Ph.D.) on Sunday, April 21st at 8 – 10 am in the Boston Convention Center, Room 205C. Nuclear factor erythroid 2-related factor 2 (Nrf2) is a transcription factor that is ubiquitously expressed in all human organs. In response oxidative, electrophilic, carbonyl and environmental stresses, Nrf2 detaches from its cytosolic inhibitor, (Keap1), and translocates into the nucleus where it binds to ARE to induce various adaptive defense responses by upregulating a multitude of phase II defense enzymes and antioxidant stress proteins (such as HO-1, NQO1, glutamate-cysteine ligase, glutamyl cysteine synthase, glutathione peroxidase, and various glutathione S-transferases). Inappropriate host defense predisposes cells, tissues and organs to inflammation, oxidative stress and cell injury. Thus Nrf2 plays a critical role in determining susceptibility to various diseases ranging from cancer and chemoresistance to COPD, diabetes, and cardiovascular diseases. In this symposium, Donna Zhang, Ph.D. from University of Arizona will review the signaling pathway of Nrf2 regulation and its dual roles in cancer; Shyam S. Biswal, Ph.D. from John Hopkins Bloomberg School of Public Health will review Nrf2 as novel therapeutic target in combating COPD; Giovanni E. Mann, Ph.D. from King’s College London will review the interaction of impaired Nrf2 mediated redox signaling in gestational diabetes; and finally, Namakkal Rajasekaran from University of Utah Health Sciences will review the Nrf2 signaling mechanism in the heart and its therapeutic potential for cardiac diseases. Attendees will gain a broad knowledge and understanding of the Nrf2 signaling pathways in the pathophysiology of various diseases along with a deep appreciation for how Nrf2 may be novel therapeutic targets.

The PIC Novel Disease Model Award is sponsored by Plato BioPharma, Inc., a world leader in in vivo model development and execution. The PIC Novel Disease Model Award will be granted to a graduate student and a postdoctoral fellow who submit the best abstracts at EB 2013 that describe a novel disease model. The model can be in vitro or in vivo but should clearly emphasize the potential utility of the system for future research related to a disease. The award is $500 for the graduate student and $800 for the postdoctoral fellow categories, respectively, and 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 12th 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 Sunday, April 21, 6:45 - 8:00 pm at the Renaissance Boston Waterfront Hotel, Aegae Room. This is a great opportunity to network with industry and academic APS members alike – we hope to see you there!

Nancy Pelaez, PhD
Purdue University
APS Trainee Advisory Committee

To all Trainees CHECK OUT THIS AWESOME OPPORTUNITY AT EB2014:

Don’t miss your chance to personally meet a Nobel Laureate!!

As you make plans to attend Experimental Biology 2013, please join us for the APS President’s Symposium Series: From Animals to Human Models of Disease featuring the APS Nobel Prize in Physiology or Medicine Lecture, “Unraveling Smell” by Dr. Linda B. Buck on Wednesday, April 24 at 4:45 pm. Dr. Buck, best known for her groundbreaking discoveries of odorant receptors and the organization of the olfactory system, is a Howard Hughes Medical Institute Investigator at the Fred Hutchinson Cancer Research Center in Seattle, WA, and recipient of the 2004 Nobel Prize in Physiology or Medicine.

Following her lecture, there will be a “Meet the Nobel Laureate” reception for trainees where you can meet Dr. Buck as well as get her autograph and have a photo with her.

In addition, please make plans to attend the APS Closing Party at 6:30 pm–10:00 pm on Wednesday.

Aaron Bunker

APS Education Liaison Report

The APS Education Committee would like to invite you to serve as a Bruce Award judge for undergraduate posters during Experimental Biology. This year, we have 26 finalists vying for approximately 11 awards. The undergraduate students will be presenting their posters to groups of Education Committee and APS member physiologists on Sunday, April 21, from 8:30 am – 12:00 pm in the Boston Convention Center, East Registration area.

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If you are available on that Sunday from 8:30 am – 12:00 pm and can help judge undergraduate posters, please let me know. We will be sending detailed information about the judging once we have all the judges identified.

Thank you for your consideration of our request. We hope you can help out this year.

Best regards,
Melinda E. Lowy

APS Science Policy Committee Update

Science Policy Sessions at EB 2013

Funding Agency Update: “Program and Policy Updates from the NIH and NSF”
2:30-4:30 PM, Wednesday, April 23. Convention Center Room 207

Federal funding agencies play important roles in shaping research by developing programs to address scientific needs and setting policies that govern the distribution of resources. Story Landis of NINDS,
Griffin Rodgers of NIDDK, and John Wingfield of the NSF Biological Science Directorate will provide updates on current programs and research priorities plus outline new initiatives and emerging opportunities for researchers at their agencies.

**Science Policy Symposium: “How to Be a Science Advocate in Your Own Backyard”**
1-3 PM, Saturday, April 20. Convention Center Room 206B

Advocacy can be broadly defined as efforts to help others understand the central importance of scientific research. Even when scientists understand the importance of advocacy, they may not know how to get started being an advocate. This symposium will give researchers some practical tips and tools for getting started and help them understand where the most accessible opportunities are.

**More Advocacy Opportunities**

Jacquie Calnan, President of [Americans for Medical Progress](https://www.americansformedicalprogress.org), offered the APS Animal Care and Experimentation Committee suggestions for becoming a research advocate.

**INFORMATION ITEMS: Agency sequestration guidance**

With budget sequestration in effect since March 1st, funding agencies have begun issuing guidance to grantees and contractors.

- On March 4, Sally Rockey sent a letter outlining efforts to mitigate the mandatory budget cuts. Further information will be posted when it becomes available on the [Extramural Financial Operations Page](https://www.nih.gov Extramural Financial Operations Page). In addition, individual institutes, centers, and divisions will make announcements about their plans.
- NSF Director Subra Suresh issued a [sequestration guidance notice](https://www.nsf.gov Extramural Financial Operations Page) on February 27. NSF will seek to minimize disruption from the cuts and seeks to protect commitments to the agency’s core mission; maintain existing awards; protect the NSF workforce; and protect STEM human capital development programs.
- NASA Headquarters sent a letter on March 4th to contractors, grantees and agreement participants stating that grants, agreements and contracts may be affected by sequestration, and that new and existing work may be “delayed, re-scoped or canceled”.
- Department of Veterans Affairs programs are exempt from sequestration.

**Individual subscriptions to Science Policy News**

APS members now have the opportunity to subscribe as individuals to *Science Policy News*. This monthly electronic publication from the APS Office of Science Policy features opportunities to advocate for research along with news on policy issues of interest to physiologists. It is published electronically the 3rd Tuesday of each month, with special editions when needed, e.g., if Congress is about to take an important vote.

To sign up for *Science Policy News*, send an email with “Subscribe” in the subject line to [sciencepolicy@the-aps.org](mailto:sciencepolicy@the-aps.org). Only APS members may subscribe to *Science Policy News*, but feel free to share the Action Alerts with your colleagues.

**PLEASE NOTE:** Everyone who currently receives *Science Policy News* as a Chapter or Section liaison will continue to do so. You do not need to send a subscription request.
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<thead>
<tr>
<th>Date</th>
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<td><strong>Saturday</strong></td>
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<td><strong>April 20, 2013</strong></td>
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<td>Education Committee</td>
<td>Refresher Course: Immunology for the Physiologist</td>
<td>Michael J. Ryan, Kim Henige</td>
<td>Convention Center Room 210A</td>
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<td>12:00 – 2:00 PM</td>
<td>Teaching Section</td>
<td>Steering Committee Meeting</td>
<td>Barb Goodman</td>
<td>Renaissance Pacific Ballroom C</td>
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<td></td>
<td>1:00 PM</td>
<td>Symposium: Science Policy Committee</td>
<td>How to be a Science Advocate in Your Own Back Yard</td>
<td>R. Brooks Robey, Gina Yosten</td>
<td>Convention Center Room 206B</td>
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<td>3:00 – 5:00 PM</td>
<td>Symposium Communications Committee</td>
<td>Distilling Your Message for the Public</td>
<td>Evonne Kaplan-Liss</td>
<td>Convention Center Room 207</td>
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<td>3:15 PM</td>
<td>Workshop: Education Track</td>
<td>Bioinformatics and Modeling 101: How to Use Your Office Computer for Discovering Stimulating Physiological Networks of Your Favorite Genes</td>
<td>Bina Joe</td>
<td>Convention Center Room 205B</td>
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<td>7:00 – 10:00 PM</td>
<td>Social Event</td>
<td>Laboratory Exercises, Case Studies and Models for Teaching Physiological Concepts</td>
<td>Nancy Lorr</td>
<td>Convention Center Room 207</td>
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<td><strong>Sunday</strong></td>
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<td>8:00-10:00 AM</td>
<td>Featured Topic: Teaching Section</td>
<td>Claude Bernard Distinguished Lecture</td>
<td>Nancy Lorr</td>
<td>Convention Center Room 207</td>
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<td>10:30 AM -</td>
<td>Claude Bernard</td>
<td>Claude Bernard Distinguished Lectureship of the APS Teaching Physiology Section</td>
<td>Eric Mazur</td>
<td>Convention Center Room 205C</td>
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<td>12:00 noon –</td>
<td>Box Lunch</td>
<td>Round Table Discussion</td>
<td>Teaching Section</td>
<td>Convention Center Room 52A</td>
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<td>Teaching Section</td>
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<td>12:30 – 3:30 PM</td>
<td>Poster Session</td>
<td>Teaching Poster Presentations</td>
<td>APS</td>
<td>Convention Center Exhibit Hall</td>
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<td>3:15 – 5:30 PM</td>
<td>Symposium: Teaching Section</td>
<td>Biology Education: Incentives and Strategies for Change</td>
<td>Stansinos Stavrianes, Vikki McCleary, Jeannine Matz</td>
<td>Convention Center Room 207</td>
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<td><strong>Monday</strong></td>
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<td>8:00 – 10:00 AM</td>
<td>Symposium: Teaching Section</td>
<td>Concept Inventories: Assessing Concepts and Competencies to Improve Learning and Teaching</td>
<td>Jenny McFarland</td>
<td>Convention Center Room 207</td>
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<td>5:45 – 6:45 PM</td>
<td>Teaching Section</td>
<td>Business Meeting (open to all)</td>
<td>Barb Goodman</td>
<td>Renaissance Brewster</td>
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Teaching Section Banquet Monday April 22, 7:00 – 10:00 pm

The last day to purchase online Teaching Section banquet tickets was March 5, 2013. There are a very limited number of tickets available for purchase on-site at EB.

Please stop by the EB on-site APS office which will be located in the Mediterranean Room, Renaissance Boston Waterfront Hotel, beginning Saturday, April 20th at 8:00 AM and daily through Monday April 22nd from 7:30 AM until 5:00 PM to purchase a ticket.

Please note that tickets will be sold on a first-come, first served basis and availability is not guaranteed. Thank you and we hope that you enjoy the banquet and the EB meeting.

Rob Augustyniak
Department of Physiology
Phone: (313) 576-4504
Fax: (313) 745-8041
E-mail: raugusty@med.wayne.edu

Faculty Development

The following references have been submitted by presenters of EB 2013 Teaching Section Program to acquaint you with the featured topics presented.

Claude Bernard Distinguished Lectureship of the APS Teaching of Physiology Section
www.peerinstruction.net; Confessions of a Converted Lecturer

Biology Education: Incentives and Strategies for Change

Please send comments or suggestions for the Teaching Section Newsletter to: vikki.mccleary@med.und.edu