Message from the Section Chair, Sinya Benyajati

We are looking forward to seeing all of you in San Diego, CA for the 2012 Experimental Biology meeting, April 21st-25th. This is also the year when APS celebrates its 125th anniversary. CEPS has assembled an exciting program in the new “clustering” format and all of our CEPS-sponsored sessions will take place during the two days, Monday April 23rd and Tuesday April 24th. We are also delighted that Dr. James Hicks will be our 2012 Krogh Lecturer on Tuesday April 24 morning.

We are pleased to see so many students, postdoctoral trainees, and young faculty members participated in the award competitions associated with EB 2012. Indeed, selecting winners for the many awards was one of the most challenging jobs for the Award Committee. EB 2012 in April, will feature a larger than usual number of posters in the Scholander session for young investigators. Enhanced participation by Trainees and Young Investigators is one of the objectives of our section, and the APS in general, so it is exciting to see the high quality work being done by so many young members of our field.

During the past year, one of our most important goals has been increased Section membership. Membership growth is essential to the Section’s continued vitality. The number of the primary members of CEPS was 421 in June of 2011. From July through December of 2011, 24 new members chose to be affiliated with our section, with 11 as primary members. Clearly, active recruitment of new members must remain as one of our goals.

To the many CEPS members willing to be nominated for various APS Committees for 2012, we thank you for taking the time to answer the call for involvement and represent our section.

Lastly, we need to begin planning the next APS Intersociety Meeting in Comparative and Evolutionary Physiology. The CEPS Steering Committee wants to know how the CEPS membership feels about the idea of combining the APS Intersociety Meeting with the International Congress of Comparative Physiology and Biochemistry (ICCPB) (see more information in this newsletter). Please take the on-line survey regarding future APS Intersociety Meeting at http://www.surveymonkey.com/s/X3NLXWN by April 15, 2012.

I would also like to invite you to our Business Meeting and Dinner where you will have a chance to meet and congratulate all our awardees and discuss the future of our section. See you all soon!

2012 August Krogh Distinguished Lectureship

The Section’s most prestigious award, the August Krogh Distinguished Lectureship, recognizes scientists who have made major and meritorious contributions to the scientific areas represented by the APS Comparative and Evolutionary Physiology Section. The 2012 August Krogh Award, will be presented to Dr. James Hicks, Professor of Ecology & Evolutionary Biology at the University of California, Irvine, on Tuesday April 24, 2012 at 8:00 am in Convention Center Room 24.

Dr. Hicks has published nearly 100 articles and chapters on various aspects of circulation and gas exchange in several vertebrate groups, including amphibians, reptiles and humans. Aspects of Dr. Hicks’ research include intracardiac shunting, cardiopulmonary response to elevated metabolism, ontogeny of cardiovascular regulation, acclimatization to hypoxia, and the effects of gravity on the vertebrate cardiovascular system. He has supervised approximately two dozen graduate students and postdoctoral trainees in his laboratory. Among Dr. Hicks’ numerous honors are being elected Fellow of the American Association for the Advancement of Science and being named Associate Vice Chancellor for Research at the University of California, Irvine.
CEPS Programs at EB2012

**Monday, April 23**

8:00 AM – 10:00 AM Room 24  **Hypoxia Inducible Factors in Health and Disease**  
Chris Wilson, Bernard Rees, Michiko Watanabe, chairs

10:30 AM – 12:30 PM Room 27  **Future Directions of Mitochondrial Bioenergetics**  
Martin Jastroch, chair

10:30 AM – 12:30 PM Room 25B  **Sodium-Water Homeostasis: Genetic and Comparative Models**  
Thomas Pannabecker and Kelly Hyndman, chairs

3:30 PM – 5:30 PM Room 27  **Impact of Environmental Estrogens and Androgens on Human and Animal Health and Reproductive Function**  
Nina Stachenfeld and Bernard Rees, chairs

7:30 AM – 5:00 PM Exhibit Hall  **Comparative and Evolutionary Physiology Poster Session**  
(including Scholander presentations)

6:00 PM - ??? Horton Hotel  **CEPS Dinner and Business Meeting**

**Tuesday, April 24**

8:00 AM – 9:00 AM Room 24  **August Krogh Distinguished Lectureship - JAMES HICKS**

10:30 AM – 12:30 PM Room 28B  **Understanding the Evolution of Physiology: Insights from Selection Experiments in Rodent Models**  
Ted Garland and Thomas Meek, chairs

3:30 PM – 5:30 PM Room 28B  **Hydrogen Sulfide: Ecology, Physiology, and Clinical Applications**  
Ken Olson, chair

7:30 AM – 5:00 PM Exhibit Hall  **Comparative and Evolutionary Physiology Poster Session**

**Other EB Sessions of Interest:**

**Saturday, April 21**

3:00 PM - 5:00 PM Room 25C  **Using Social Media to Communicate About Physiology and You**  
James Hicks, Chair (Communications Committee)

**Sunday, April 22**

8:00 AM – 10:00 AM Room 25C  **Publishing 101: How to Get Your Work Published in APS Journals and Avoid Minefields Along the Way**  
Hershel Raff and Rita Scheman, Chairs (Publications Committee)

**Wednesday, April 25**

10:30 AM – 12:30 PM Room 25C  **E-Media Tools for the Professional Scientist**  
Jennifer Bomberger and Erica Dale-Nagle (Trainee Advisory Comm.)

10:30 AM – 12:30 PM Room 23  **American Physiological Society: 125 Years of Progress**  
Charles M. Tipton and Kathy Ryan (History of Physiology Group)

3:30 PM – 5:30 PM Ballroom 20A  **Nobel Prize in Physiology or Medicine Lecture**  
Oliver Smithies
APS Social Events at EB 2012:

**APS 125TH Anniversary at EB2012 - Help us Celebrate! Register for Opening and Closing events!**

**Saturday, April 21, 7:00 PM - following the Cannon Lecture by L. Gabriel Navar, Tulane University** - APS will party on the North Embarcadero with *The Mardells*. Food, drink, and games galore!

**Wednesday, April 25, 6:00 PM - following the pm sessions including a lecture by Nobel Laureate Oliver Smithies** – the party moves into the Marriott with food and drink, music and dancing to an APS member band – *GI Distress!* Plan on attending to help celebrate the Society’s founding in 1887!

Help the APS celebrate by contributing to a fund designed to make the forthcoming meeting a truly international event. The Society hopes to raise funds to bring outstanding scientists from around the world to San Diego for the celebration. In order to make that possible, the membership is invited to **make a charitable contribution to the 125th Anniversary Fund**. [https://www.the-aps.org/ebuspprod/OneClickDonation/tabid/229/Default.aspx?ProductId=1040](https://www.the-aps.org/ebuspprod/OneClickDonation/tabid/229/Default.aspx?ProductId=1040)

**New TAC Representative**

Kelly Hyndman deserves a special hearty round of thanks for all the work she’s done in her three years as the CEPS Trainee Representative to the APS Trainee Advisory Committee (TAC). The strong showing by trainees in many section activities during the past 3 years reflects the enthusiasm and dedication Kelly brought to our section. Thanks, Kelly!

We are also very fortunate to have Heidy Contreras from University of La Verne joined us as the new TAC representative and we welcome her new and fresh input and ideas for our future activities.

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**2012 CEPS Dinner and Business Meeting**

**Horton Grand Hotel**

311 Island Avenue, San Diego, CA 92101

6 pm, Monday, April 23

Join your fellow comparative and evolutionary physiologists to celebrate this year’s Krogh Distinguished Lecturer and honored guest, Dr. James Hicks. We will also celebrate the achievements of this year’s recipients of the CEPS Research Recognition Award, New Investigator Award, and the Novo Nordisk Foundation Travel Fellows. The Hotel/Restaurant is only a few short blocks from the convention Center.

Dinner at the Horton Grand Hotel will consist of a delicious buffet with multiple salad choices, roasted beef, grilled chicken, poached salmon, rice pilaf, roasted red potatoes, a vegetable medley, and my favorite, a dessert station. Of course iced tea and coffee are included in the price and there will be a cash bar for other beverages.

Initial dinner tickets were sold through the APS online store. Due to limited seating and high demand, Dinner tickets sold out quickly and there are none remaining for sale.

If you have any questions, please contact Karen Sweazea ([Karen.Sweazea@asu.edu](mailto:Karen.Sweazea@asu.edu) or 480-965-6025) or visit The APS office at EB (San Diego Marriott, La Jolla/La Mesa Room). We look forward to seeing you there!

-Karen Sweazea, Treasurer
News from the Trainee Advisory Committee
Kelly Hyndman, CEPS Representative

Please encourage the trainees in your labs and departments to become members of the CEPS! Membership rates are reduced for students and post docs. On the new updated APS website (www.the-aps.org), there are many new links for undergraduate students, graduate students, post docs and more. Check them out!

The TAC has many ways of communicating trainee relevant information, such as the professional skill courses offered by the APS. Please subscribe to the CEPS listserv to receive emails about trainee relevant courses, funding opportunities, and special sessions at meetings. As well we have the:

Facebook page: American Physiological Society Trainees
Twitter account: APSTrainees
Website: http://www.the-aps.org/mm/hp/Audiences/APS-Committees/tac

EB2012 will be here before we know it! In the coming weeks before EB, I will email a list of all the trainee relevant symposia so make sure you subscribe to the CEPS listserv. As well, I would like to highlight the TAC sponsored symposium:

April 25, 10:30 AM-12:30 PM Room 25C E-Media Tools for the Professional Scientist.
   Chairs: Jennifer Bomberger and Erica Dale-Nagle.

Plan on attending the APS Communications Committee Symposium at EB in San Diego

April 21, 3:00 PM -5:00 PM Room 25C Speakers:
Using Social Media to Communicate About Physiology and You
   Isis the Scientist - author of the popular blog "On Becoming a Domestic and Laboratory Goddess": http://isisthescientist.com/
   Dr. Pascale Lane - author of the blog "Pascale Lane's Stream of Thought: Urine is Golden"; http://pascalelane.wordpress.com/

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

April 25, 3:30 PM Ballroom 20A Nobel Prize in Physiology or Medicine Lecture by Dr. Oliver Smithies
   Dr. Smithies is a pioneer in genetics research, professor at UNC-Chapel Hill, and recipient of the 2007 Nobel Prize in Physiology or Medicine. Following his lecture, there will be a "Meet the Nobel Laureate" reception for trainees where you can meet Dr. Smithies as well as get his autograph and have a photo with him.

If you have any questions please contact me: khyndman@georgiahealth.edu
See you at EB!
   Kelly

Prizes for Comparative Physiologists at EB 2012!
I am on the Communications Committee and we were just made aware of an opportunity for comparative physiologists to win prizes before and during EB. Members of the Communications Committee have been tasked with handing out chits to obtain free coffee at EB if they see someone wearing anything that promotes Dr. Dolittle or comparative physiology!! Also, according to the blog, members can enter a contest each week prior to EB to win a free Dr. Dolittle t-shirt. The details are at the end of this blog: http://scienceblogs.com/lifelines/2012/02/getting_ready_for_experimental.php
This a neat opportunity for members of our section to increase the awareness of Comparative Physiology at EB!
Karen Sweazea
**Physiologist in Industry**  
*Ken Olson, CEPS Representative*

Greetings from your Physiologists In Industry Representative (PIC).

I hope you are planning to attend EB 2012 this year. It’s going to be a great celebration and venue.

**Grad students and Post Docs need MONEY?** I want to again alert you to the Novel Disease Model Award from PIC sponsored by Plato BioPharma (see below). This is IDEAL for comparative physiologists! Details on how to apply for this award can be found at [http://www.the-aps.org/awards/](http://www.the-aps.org/awards/student.htm#NDM). Please follow the instructions carefully – this will greatly enhance your probability of success.

**Plato BioPharma**  
**INCORPORATED**

In Vivo Research Experts, Partners in Drug Discovery

The PIC Novel Disease Model Award is now 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 one graduate student and one postdoctoral fellow who submit the best abstracts at EB 2012 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, and will be presented at the APS Business Meeting on Tuesday, April 24, 6:00 – 7:30 pm in the Convention Center, Ballroom 20A.

The APS PIC is sponsoring a Symposium at EB 2012 entitled “MircoRNAs in Human Disease and as Novel Therapeutics” (chaired by Rebecca Persinger, R.D., Ph.D. and John Liles, Ph.D.) on Sunday, April 22 at 8 – 10 am in the Convention Center, Room 27. MicroRNAs (miRNAs) are a class of short (~19-25 nucleotides), single-stranded RNAs shown to regulate gene expression through irregular base pairing to the 3'-untranslated region of target miRNAs. Although miRNAs do not code for proteins, they play an important role in post translational gene expression regulating families of genes involved in developmental, cell death, metabolism, and disease. First described by Victor Ambros in *C. elegans*, miRNAs have been found in nearly every biological system examined with more than 800 described in humans. A number of companies have developed strategies targeting miRNAs as a novel class of therapeutics to treat cancer and diseases of the cardiovascular and renal systems.

The proposed symposia speakers include: Deidre MacKenna, Ph.D. (Regulus Therapeutics) to discuss miRNAs as a novel treatment for cardiovascular disease, Eric G. Marcusson, Ph.D. (Regulus Therapeutics) will review miRNA as a therapeutic target in hepatocellular carcinoma, and Zheng Dong, Ph.D. (Medical College of Georgia) will review the role of miRNAs in renal disease. Attendees will gain a broad appreciation for the role of miRNA in pathophysiology of disease along with an appreciation for how miRNAs may be novel therapeutic targets.

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 at EB 2012 is on Sunday, April 22, 6:45 – 8:00 pm (location TBD). Free Hors d’oeuvres will be available along with a cash bar and information on the roles of Physiologists in Industry. 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 for Sunday, April 22, 12:00 – 2 pm (location TBD) – 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.

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**EB2012 Important Websites:**

- Poster instructions: [http://experimentalbiology.org/EB/pages/Poster-Presentation-Instructions.aspx](http://experimentalbiology.org/EB/pages/Poster-Presentation-Instructions.aspx)
CEP Section Award Winners

Congratulations to the following recipients of 2012 CEP Section awards. Awardees will be recognized at the CEP Section Dinner on Monday, April 23.

**New Investigator Award:**
- **Keith Choe**  
  University of Florida

**Research Recognition Awards:**
- **Heidy Contreras**  
  University of La Verne
- **John Eme**  
  University of North Texas
- **Cassondra Williams**  
  University of California, Irvine

**Novo Nordisk Travel Awards:**
- **Catherine Jarrett**  
  Arizona State University
- **David Hogg**  
  University of Toronto

CEP Section Members Recognized by APS

Congratulations to CEP Section members receiving awards from the APS and other sections.

**Caroline tum Suden Professional Opportunity Award**
- **Erik Behringer**  
  University of Missouri-Columbia
- **Jose Pablo Vazquez-Medina**  
  University of California-Merced

**International Early Career Physiologist Travel Award**
- **Graham Scott**  
  McMaster University
- **Rebecca Ölkrug**  
  Philipps-Universität Marburg

**APS/NIDDK Minority Travel Fellowship Awards**
- **Jose Pablo Vazquez-Medina**  
  University of California-Merced
- **Jose Viscarra**  
  University of California-Merced

EB 2012 Events of Special Interest

**Saturday, April 21 – 1:00-3:00 PM – Room 25B: Public Outreach and Animal Research: A Toolkit for Investigators**

During the past decade, public support for animal research has dwindled from more than 70% to the 50-60% range, according to recent public opinion polling. Distorted information distributed by animal research opponents has played a role in this decline in public support, yet few investigators come forward to challenge false claims. Many scientists feel ill-equipped to take on the role of research advocate. This symposium is intended to provide scientists the background they need to broach the topic of animal research with their students, neighbors, and family members.

1:00 PM  
**Introduction. Bill Yates,** Univ. of Pittsburgh, Chair, APS Animal Care and Experimentation Committee

1:10 PM  
**Engaging the public about animal research: a scientist’s perspective. Dario Ringach,** Univ. of California, Los Angeles Jules Stein Eye Inst., David Geffen Sch. of Med.

1:40 PM  

2:10 PM  
**Why investigators and institutions should talk about animal research: a media relations perspective. Jim Newman,** Oregon Hlth. Sci. Univ.

*Sponsored by: APS Animal Care and Experimentation Committee*

**Tuesday, April 24 - 2-4 PM - Room 1A: National Institutes of Health: Programs and Policies Update from Institutes**

Session Co-Chairs: APS President-elect Susan Barman and APS Science Policy Chair John Chatham.

Several NIH institutes will report on their research and policy initiatives. Drs. Susan Shurin of the National Heart, Lung, and Blood Institute (NHLBI); Judith Greenberg of National Institute of General Medical Sciences (NIGMS); Richard Nakamura of the Center for Scientific Review (CSR); and Elizabeth Wilder of the Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI) will share the latest information about research programs and policy priorities.

*Sponsored by the American Physiological Society, American Association of Anatomists, American Society for Biochemistry and Molecular Biology, American Society for Investigative Pathology, American Society for Nutrition and the American Society for Pharmacology and Experimental Therapeutics.*
Upcoming Meetings

EB 2013 – April 20-24, 2013, Boston, MA

NOW is the time to develop and submit your proposals for symposia or featured topic sessions for the Experimental Biology 2013 meeting in Boston, MA, April 20-24, 2013. CEPS will have two symposium slots and two featured topics slots. Proposals for both types of sessions should be submitted by April 15, 2012.

Download and complete the “EB Section-Sponsored Symposium Form” or “EB Featured Topic Form” available at http://www.the-aps.org/mm/Conferences/EB or contact Barney Rees at breees@uno.edu. Proposals will be discussed and decided upon at the CEPS Steering Committee meeting at the EB2012 meeting.

Future APS Intersociety Meetings in Comparative Physiology

The Comparative and Evolutionary Physiology Section of the APS has traditionally organized an APS Intersociety Meeting with our national and international comparative physiology counterparts every four years. The most recent meetings have been in San Diego, CA (2002), Virginia Beach, VA (2006), and Westminster, CO (2010). These meetings generate considerable interest and enthusiasm among CEPS members and they are generally well-attended by our membership and colleagues from other physiological societies.

The International Congress of Comparative Physiology and Biochemistry (ICCPB) is an organization of several professional societies and meets every four years. The most recent meetings have been in Mt. Buller, Australia (2003), Salvador, Brazil (2007), and Nagoya, Japan (2011). These meetings draw from an international audience of comparative physiologists, including participation by CEPS members, albeit not at the same level as the APS Intersociety Meeting.

Both of these 4-year meetings are “medium-sized” and cover many of the same areas of interest to comparative physiologists. With dwindling resources to organize, travel to, and host meetings, combined with the limited number of volunteered symposia and contributed papers, the suggestion has been made to combine these two meetings. While the exact structure of a joint meeting is far from being worked out, this suggestion has received unofficial and informal support from various constituencies within and outside of the APS.

The CEPS steering committee wants to know how you, the CEPS membership, feel about the idea to combine these two intersociety/international meetings in comparative physiology. We ask that you complete the survey at http://www.surveymonkey.com/s/X3NLXWN by April 15. This survey should take no longer than 5-10 minutes of your time and it will provide valuable input to the steering committee. Results of the survey will be discussed at the Annual CEPS business meeting and dinner at the EB2012 meeting.

Other Meetings of Interest:


The Physiology Society Main Meeting, July 2-5, 2012, Edinburgh, UK, see http://www.physiology2012.org/

Society for Integrative and Comparative Biology, January 3-7, 2013, San Francisco, CA, see http://www.sicb.org/meetings/2013/

International Union of Physiological Sciences (IUPS), July 21-26, 2013, Birmingham, UK, see http://www.iups2013.org/

Final words from your program officer, Barney Rees:

Thanks to all who submitted proposals for EB2012.

Please submit proposals for EB2013 by April 15.

Please take the on-line survey regarding future APS Intersociety Meetings by April 15.

Pack your bags and get ready for a great EB2012 in San Diego!
Your Opinion is Important

The CEPS steering committee needs your feedback to plan our next **APS Intersociety Meeting in Comparative Physiology**. Please take a few moments to complete this survey by **April 15**.