Message from the Chair

Greetings Teaching Section Members!

As we head toward winter and generally a time of less outdoor activity I’m sure that many of you, like I, spend a bit more time reflecting on the past and thinking about the future. This is particularly important this year as the APS is about to initiate a Strategic Planning Process to define where we want to go as a society over the next five years. While the formal meeting to develop the plan is still a few months away, we have all been asked to submit our thoughts as to what the plan should include. The Teaching Section had originally planned to conduct an online SWAT analysis but that effort just didn’t “get off the ground.” However, it’s not too late to gather our individual thoughts and make our views known to those involved in the January meeting. I believe that teaching should become a more important part of our society’s mission. If you have thoughts on this subject, feel free to send them to me as I will be attending the meeting in January.

It seems clear that we are seeing a major paradigm shift in undergraduate science and medical education which is moving away from “fact accumulation” to “knowledge utilization” i.e. competencies. In the past, much of science education focused on the teaching of important concepts surrounded by a lot of factoids. The general assumption was that given an appropriate exposure to the concepts and facts a student would be able to apply the concepts to effectively reason through problems faced in their private or professional lives. Many science educators now believe that we have place too much emphasis on the accumulation of information and perhaps too little on helping students learn to apply the concepts. While not as guilty as many other disciplines, Physiologists need to renew our commitment to helping students learn to use the important biological mechanisms to solve physiological problems. This means that most of us must retool ourselves to redirect our teaching. Perhaps we, as a section, can help all who teach physiology accomplish this new role as educators. This can be a small but important role we can play in helping Physiology remain at the forefront of biological science education and I believe should be a part of the APS Strategic Plan.

Sincerely,
Bill

Bill Galey
Teaching Section Chair
APS Teaching of Physiology Section and Education Committee: A Partnership That Works

Given the number of Teaching of Physiology Section members who have served on the Education Committee and vice versa, it is small wonder that the spirit and motivations of the two groups are so similar. The Teaching Section offers a means by which APS members who are heavily involved in the classroom can network, organize programs for Experimental Biology, and contribute to the overall mission of the American Physiological Society. Indeed, the Section has played a major role in APS governance. Recent Council members have come from the Teaching Section, as well as many APS committee members. Along the same lines, the Education Committee represents the Society’s overall interest in the teaching of physiology at all levels. Its members are often drawn from the Teaching Section, but other sections also contribute, as appropriate for a committee that reflects all the components of the Society. It is a very active group, and its programs include Frontiers in Physiology for K-12 teachers, PhUN Week outreach to K-12 students, the David S. Bruce Undergraduate Research Awards, and the Professional Skills Courses, to name a few.

With the similarity of interests, good communication between the Teaching Section and the Education Committee is essential. It follows that the Statement of Organization and Procedures of the Teaching of Physiology Section establishes an *ex officio* membership for the “Education Officer” of the APS on the Section’s Steering Committee. Admittedly, Dr. Marsha Matyas is now the APS Director of Education Programs, but regardless of title, she can keep the Steering Committee up to date on the efforts of the APS Education Office. Moreover, as the administrative support for multiple APS committees, her Office is well-placed to offer advice. Along the same lines, an *ex officio* membership is provided to the Chair of the Education Committee, a role in which I currently serve. Reciprocating the gesture, the Society’s description of the Education Committee includes a liaison representative from the Teaching Section, who serves *ex officio*. Dr. Mary Ann Rokitka has been the liaison for several years. Dr. Matyas, as Director of Education Programs, is also an *ex officio* member. Finally, the editor of *Advances in Physiology Education*, currently Dr. Robert Carroll, serves as an *ex officio* member of both the Section Steering Committee and the Education Committee. In each case, *ex officio* members are expected to report on the activities of the group they represent.

This exchange of representatives ensures that the programs of the Teaching of Physiology Section and the Education Committee are complementary, leveraging the activities of each. A recent example is the linking of Section poster sessions at the Experimental Biology meeting with the topic of the Education Committee’s Physiology Refresher Course. With the increased attention that the teaching of science is receiving at the federal and state levels, partnership between the two groups will become even more important as the APS plays a role in shaping education policy.

Thomas A. Pressley  
Education Committee Chair
Meet the APS Teaching Section New Committee Member:
Aaron Bunker, PhD; Trainee Advisory Committee Representative

Hello everyone! My name is Aaron Bunker and I am a native to the Midwest. I was born and raised in St. Joseph, MO where I received all my primary K-12 schooling. I also attended college at Missouri Western State College (now a university) in St. Joseph where I majored in Biology and minored in Chemistry.

After graduation I worked in the ever-booming pharmaceutical industry at MDSPharma Services in Lincoln, NE. MDSPharma is a contract company that conducts first-in-human trials on emerging pharmaceuticals and other compounds. While there I worked as a bioanalytical chemist extracting compounds from all biological matrices via a host of different approaches and participated as a test subject in several of their in house studies. After one year there I earned admittance into the Biomedical Sciences Ph.D. program at the University of Missouri (MU), College of Veterinary Medicine.

While at MU I worked under the esteemed mentor-scientist M. Harold Laughlin, Ph.D. I studied vascular maladaptations to chronic disease and physical inactivity using a rodent model of type 2 diabetes and a pig model of familial hypercholesterolemia. During my Ph.D. program I also earned a Minor in College Teaching, which involved several courses over teaching college science and student life, and a formal teaching practicum. It was my dream prior to entering my Ph.D. program to land a position at a primarily undergraduate institution teaching physiology.

Well, it happened and now I am a newly minted Ph.D. in my first tenure-track assistant professor position at Morningside College in Sioux City, IA. At Morningside I am teaching several different courses in human physiology, a histology course, medical terminology, and a “college 101” course. I plan to engage undergraduates in independent research under my guidance but switch to humans and examine how physical inactivity, exercise, diet, gender, and other basic variables affect one’s baroreflex response to changes in body position. To do this I have modified an inversion table used for spinal stretching into a head-up-tilt table. So we’ll see how that goes!

Lastly I want to say that I am very excited to be on the Trainee Advisory Committee representing the APS Teaching Section and very much look forward to meeting everyone at EB2011 in Washington D.C.

Aaron Bunker
Training Advisory Committee Up-Date

At the TAC Fall 2010 business meeting the committee spent considerable time discussing TAC input to the APS strategic plan and SWOT (strengths, weaknesses, opportunities, and threats for physiology trainees) analysis. The TAC draft of this input summarized the responses from TAC members to the Strategic Planning Questions asked by APS Council. Major and reoccurring themes/issues within this draft included, but aren’t limited to: incomplete training of trainees, limited knowledge of alternatives to academic careers, recruiting undergraduates, and retaining APS trainee members.

For the EB2012 TAC Symposium the TAC also decided on a topic under the current working title of: “E-media Tools for the Professional”. This will include talks with topics over using electronic media to: have publications and grant notices come to you, finding and doing collaboration online, E-media tools for teaching (Moodle), and how to maintain your personal boundaries and protect yourself when using Facebook and Twitter. Suggestions for speakers for each topic are welcomed and would be greatly appreciated.

TAC is also currently working on analyzing results obtained from surveys of graduate students, postdoctoral fellows, and new investigators in physiology to identify topics and issues important to those trainees. TAC intends to submit the results in manuscript form from this study to Advances in Physiology Education.

Engaging undergraduates in APS activities came up in conversation often. APS is opening up membership to undergraduates and what the TAC should offer them as privileges to their membership and whom TAC should target within the undergraduate student body to become APS members received considerable discussion. The consensus was reached that undergraduates involved in physiological research should be targeted and recruited. The rights and privileges they would receive following membership were not fully addressed at this time.

Lastly, a total of 6 new members were also welcomed into the TAC. I was one of them! So I look forward to meeting everyone at EB2011 during our Teaching Section business meeting.

Aaron Bunker, Ph.D.

APS Science Policy Committee Up-Date

APS Science Policy News
The APS Science Policy and Animal Care and Experimentation Committees work with the Society’s leadership to develop policy positions and advocate for physiology research. To see the latest news from the Office of Science Policy including new position statements on animals in research and comments on proposed conflict of interest rules at the NIH, visit the APS website at http://www.the-aps.org/pa.
FY 2011 Funding Update
At the close of fiscal year 2010 on September 30, Congress had not completed work on the legislation to fund federal programs including biomedical research at the NIH, NSF, VA and NASA in the coming year. The November mid-term elections have been keeping Members of Congress busy campaigning at home and left little time for work in Washington, DC. Before adjourning for the elections, Congress passed temporary legislation to keep the government operating at the current levels until regular funding legislation can be considered later this year.

Rebecca Osthus
APS Science Policy Analyst

Experimental Biology 2010, April 9-13, Washington DC
(http://experimentalbiology.org)

- November 8, 2011: abstract submission deadline
- February 9, 2011: early registration deadline (Program will not be mailed this year)
- March 4, 2011: hotel reservations and cancellation deadline
- April 9, 2011: APS Opening Reception

Teaching Section Program Outline

<table>
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<tr>
<th>Date</th>
<th>Time</th>
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<th>Title</th>
<th>Presenter</th>
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<tr>
<td>Sunday</td>
<td>April 10, 2011</td>
<td>8:00-10:00 AM</td>
<td>Featured Topic 1 of 1</td>
<td>Nancy Pelaez</td>
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<td>12:30 PM</td>
<td>Distinguished Lecture</td>
<td>Claude Bernard Distinguished Lectureship of the APS Teaching of Physiology Section</td>
<td>Patangi Rangachari</td>
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<td>12:30 – 1:30 PM</td>
<td>Brown Bag Lunch</td>
<td>Continued Discussion of Modeling and Simulation</td>
<td>Presenters from featured topic</td>
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<td>3:15 – 5:15 PM</td>
<td>Symposium 2 of 2</td>
<td>Taking the Mystery out of Science Education Research</td>
<td>Mary Pat Wenderoth</td>
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<td>Monday</td>
<td>April 11, 2011</td>
<td>8:00-10:00 AM</td>
<td>Symposium 1 of 2</td>
<td>Dee U Silverthorn, William R. Galey Jr.</td>
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Lynelle Golden
Program Officer
Call for Nominations for the Arthur C. Guyton Educator of the Year Award

The Arthur C. Guyton Educator of the Year Award supported by Elsevier ($1,000 cash prize, complimentary registration to Experimental Biology 2010, a framed, inscribed certificate, and up to $750 in travel reimbursement to the Experimental Biology meeting) recognizes a full-time faculty member of an accredited college or university and member of the APS who has independent evidence of: (1) excellence in classroom teaching over a number of years at the undergraduate, graduate, or professional levels; (2) commitment to the improvement of physiology teaching within the candidate’s own institution; and (3) contributions to physiology education at the local community, national or international levels.

The awardee is requested to write an essay on his/her philosophy of education for publication in The Physiologist.

The typical nominee will have shown excellence in teaching and have made significant contributions in student advisement, graduate education, and/or curriculum design and reform at their institution. The activities that distinguish a candidate in the rankings include outreach activities at the state, national, or international level; contributions to education through APS activities; peer-reviewed educational journal articles; and widely disseminated publications such as commercially produced textbooks, lab manuals, or software.

Nominations Process: Each nominee must be nominated by a member of APS. The nominator must upload a letter of support outlining the qualifications of the nominee no later than January 8, 2011. To upload documents, please visit the APS Award Module at https://www.the-aps.org/awardapps/login/index.cfm. Finalists will be contacted and asked to provide further information.

Previous Awardees
2010 Stephen DiCarlo
2009 C. Subah Packer
2008 Penny Hansen
2007 Jeffrey L. Osborne
2006 Daniel R. Richardson
2005 Robert W. Gore
2004 Robert G. Carroll
2003 George A. Ordway
2002 John West
Call for Nominations for the Teaching Section New Investigator and Research Recognition Awards

The Teaching of Physiology 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 Teaching of Physiology 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.). They should receive nominations from at least two regular members of the APS. Candidates will be judged on their publications, how the publications relate to the Teaching of Physiology Section and evidence for independence and promise (grant funding, peer review activities, 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 Teaching of Physiology Section. Candidates must upload: a curriculum vitae, 2 nomination letters from APS members, and 3 reprints. Awardees are recognized at the Teaching of Physiology Section Business Meeting. All application materials must be completed online (www.the-aps.org/awardapps) by November 3, 2010. Questions should be directed to David Rodenbaugh at: rodenbaugh@oakland.edu.

The Teaching of Physiology Section Research Recognition Awards ($500 plus reimbursement of the advance registration fee) will provide two travel awards for outstanding posters presented in the Teaching Poster Sessions at Experimental Biology. To qualify for this award, the applicant must be first author on the poster, and age 40 or under or within 10 years of receiving the Ph.D. or M.D. Applicants must be APS regular, affiliate, or student members. Abstracts will be reviewed and rated by the Teaching Section Steering Committee. All poster abstracts must be formally submitted to EB by the abstract deadline. Applicants must upload a copy of the first-authored abstract. Awardees are recognized at the Teaching of Physiology Section Business Meeting. All application materials must be completed online (www.the-aps.org/awardapps) by November 3, 2010. Questions should be directed to David Rodenbaugh at: rodenbaugh@oakland.edu.

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Term ends: 2012

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