



The Physiologist

The Effect of Public Deposit of Scientific Articles on Readership

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Abstract

A longitudinal cohort analysis of 3,499 articles published in 12 physiology journals reveals a 14% reduction in full text article downloads when they are made publicly available from the PubMed Central archive. The loss of article readership from the journal website may weaken the ability of the publisher to build communities of interest around the research article, impede the communication of news and events with society members and reduce the perceived value of the journal to institutional subscribers.

Introduction

Researchers receiving monies from the National Institutes of Health (NIH) are required to deposit copies of their final author manuscripts into PubMed Central (PMC), a digital repository of biomedical literature, within 12-months of publication (7).

Beginning in July 2008, as a service to authors and readers, the American Physiological Society (APS) began submitting the published, full text version of NIH-sponsored articles to PubMed Central and making them freely available 12-months after publication (1). All articles, regardless of funding status, are made freely available 12-months after publication from APS journal websites. Free accessibility of the research literature has been shown to increase readership but have no effect on article citations (5, 6).

The purpose of this study is to

determine if, and how much, public access to published research articles from PubMed Central affects readership from APS journal websites.

Data and Methods

The dataset consists of 3,499 papers published in 12 APS research journals between July 2008 and June 2009 (Table 1). Of these papers, 1,886 (54%) were deposited in PubMed Central and made freely available 12-months after publication. These papers formed the treatment group. The remaining 1,613 (46%) papers comprised the control group. These papers were available to journal subscribers for the first 12-months and freely available thereafter.

Readership was measured for each article by the number of full text downloads from the publisher's websites, aggregated by month and extending for a maximum period of 24-months after publication. Publication is defined as the date when a journal issue is released to the public.

This dataset was limited to articles and review papers. Fifty-one papers published under the APS AuthorChoice (2) open access program were excluded from the dataset as their numbers were insufficient for analysis.

The study employed a longitudinal cohort analysis. As treatment articles became freely available from the PubMed Central website after 12 months, we were primarily interested

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Table 1. Description of the APS dataset.

Journals	Articles (n)	Deposited in PMC (n)	Deposited in PMC (%)
<i>AJP-Cell Physiology</i>	218	128	59%
<i>AJP-Endocrinology and Metabolism</i>	319	148	46%
<i>AJP-Gastrointestinal and Liver Metabolism</i>	286	157	55%
<i>AJP-Heart and Circulatory Physiology</i>	495	322	65%
<i>AJP-Lung Cellular and Molecular Physiology</i>	204	141	69%
<i>AJP-Regulatory, Integrative and Comparative Physiology</i>	453	218	48%
<i>AJP-Renal Physiology</i>	354	201	57%
<i>Journal of Applied Physiology</i>	444	170	38%
<i>Journal of Neurophysiology</i>	542	321	59%
<i>Physiological Genomics</i>	123	63	51%
<i>Physiology</i>	30	8	27%
<i>Physiological Reviews</i>	31	9	29%
Total	3,499	1,886	54%

in comparing the relative performance of the treatment cohort to the control cohort beginning with month 13.

To measure the difference in article performance as treatment articles became freely available from PubMed Central, we used a matched pairs analysis to calculate the difference in

downloads for each article in each cohort between months 12 and 13. A linear regression model was constructed to estimate the effect of PubMed Central on publisher downloads from months 13 through 24. All analyses were performed using JMP 9.0 (SAS).

Results

Figure 1 plots the longitudinal performance of articles by cohort for the first 24 months of publication. Both the treatment and control cohorts are statistically similar between months one and 12. Beginning month 13, however, articles in the control cohort

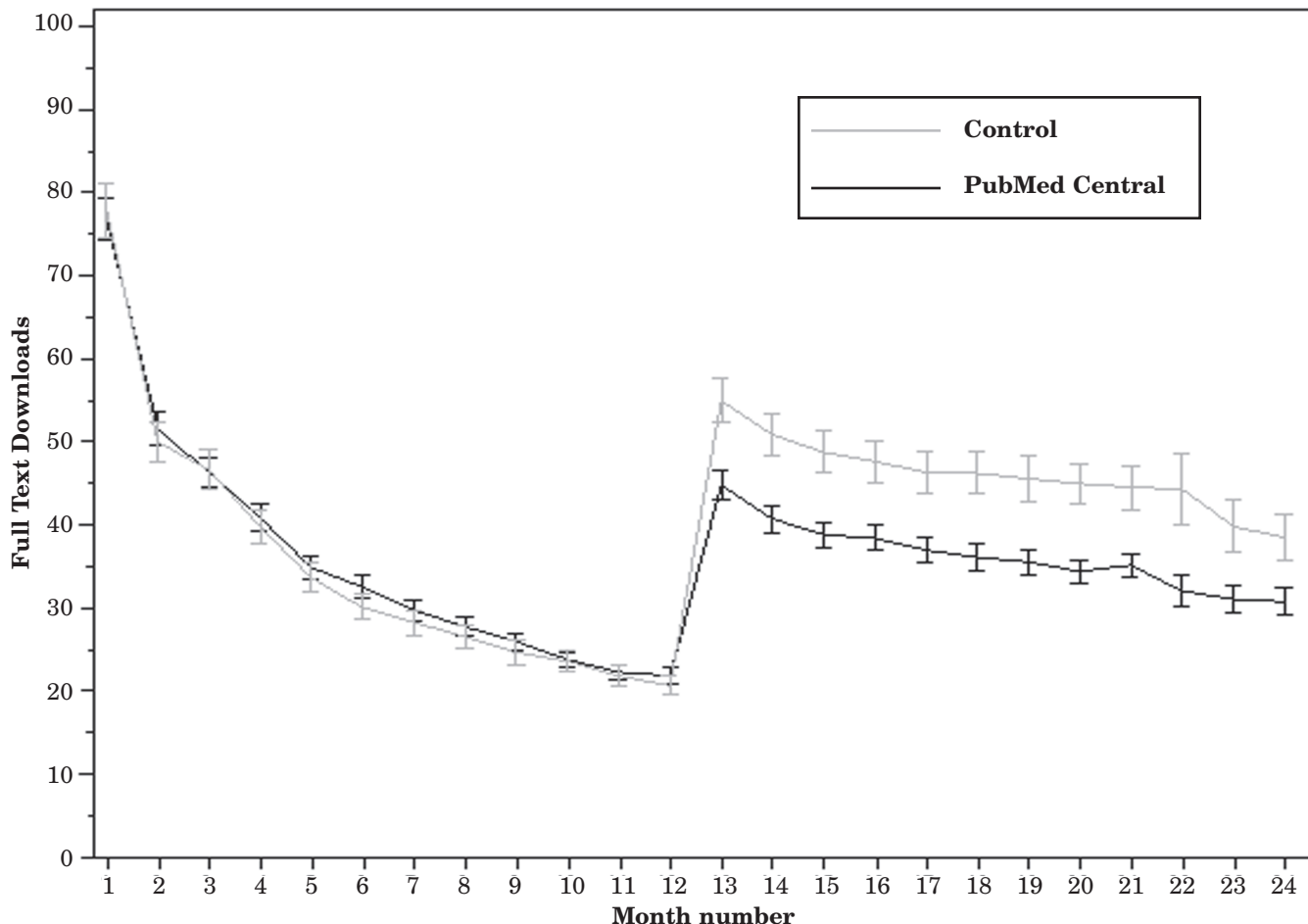


Figure 1. Mean full text downloads ($\pm 95\%$ C.I.) for articles deposited in the treatment group (PubMed Central) compared to the control group for the first 24-months of publication.

gained 34.8 downloads, on average, compared to just 23.4 downloads for articles deposited in PubMed Central—a reduction of 11.5 downloads per article (F-Ratio=103.7, df=3498, p<.0001, Table 2).

Controlling for the effect of journal, article type and month of publication, articles deposited in PubMed Central received 14% fewer full-text downloads per month (95% C.I. -17% to -11%) on average between months 13 and 24 (Table 3).

Discussion

The results of this longitudinal cohort analysis of 12 research journals in physiology estimate that PubMed Central is

responsible for drawing approximately 14% of full-text article downloads from journal websites when articles deposited in PubMed Central become freely available to the public 12-months after publication. These persistent reductions in full text downloads from journal websites strongly suggest that PubMed Central is, in part, competing directly with scientific publishers for readers of the scientific literature. As PMC-deposited articles also become freely available simultaneously from APS journal websites, this reduction in reader traffic cannot be explained by differential access barriers.

The relationship between open access and subscription cancelation behavior is

not well understood. As librarians base cancelation decisions, in large part, on publisher-provided usage data (3, 4, 8, 9), a significant reduction in usage data as a result of PubMed Central may have unintended consequences on those publishers who participate in the direct article deposit program.

While PubMed Central may be providing access to readers traditionally underserved by scientific journals, the loss of readership from journal websites may have negative consequences to scientific society and association-based publishers. By drawing readership away from the journal, the publisher loses the opportunity to direct readers to related

Table 2. Matched pairs analysis comparing individual article downloads for month 13 to month 12.

Results				Across Groups			
Month 13	49.9	t-Ratio	50.4	PMC	Count	Mean Difference	Mean Mean
Month 12	21.2	DF	3498				
Mean Difference	28.7	Prob > t	<.0001*	0	1613	34.8	38.4
Std Error	0.57	Prob > t	<.0001*	1	1886	23.4	33.1
Upper 95%	29.8	Prob < t	1.0000	Test Across F Ratio Prob>F Groups			
Lower 95%	27.5			Mean Difference	103.7	<.0001*	Within Pairs Y Axis
N	3499			Mean Mean	19.8	<.0001*	Among Pairs X Axis
Correlation	0.81						

Table 3. Linear regression model estimating the effect of PubMed Central on article downloads between months 13 and 24.

Response Log (Downloads)

Summary of Fit

RSquare	0.780
Root Mean Square Error	0.351
Mean of Response	3.450
Observations	36672

Parameter Estimates

Term	Estimate	t Ratio	Prob> t	Lower 95%	Upper 95%
PubMed Central	-14%	-8.28	<.0001	-17%	-11%
Month	-3%	-48.63	<.0001	-3%	-3%
Review	136%	16.84	<.0001	114%	161%

REML Variance Component Estimates

Random Effect	Var Ratio	Var Component	Std Error	95% Lower	95% Upper	Pct of Total
JOURNAL	2.041	0.251	0.110	0.035	0.467	39.6
Article	2.113	0.260	0.007	0.247	0.272	41.0
Residual		0.123	0.001	0.121	0.125	19.4
Total		0.633	0.110	0.462	0.921	100

articles, editorials and commentary surrounding the article of interest. The journal also loses the opportunity to deliver news, educational material, advertisement (job announcements, grant and travel opportunities, products and services) and society events (conferences and workshops) to the reader. In sum, the publisher loses some ability to create a community of interest surrounding the journal.

Limitations

The usage data in this study were aggregated by month of publication. As the APS employs a continuous publication model, whereby papers are published online, often several weeks in advance of publication of each journal issue—the standard practice of most scientific publishers today—we were unable to capture the initial usage for each article. In addition, some articles in each issue may have been published online for a longer period of time than others. Both of these issues may increase the variability of usage data especially for the first month of publication. However, since our study is comparative in nature, we are primarily interested in measuring the relative performance of each cohort in our study, rather than its absolute performance.

Last, since we have no access to PubMed Central article-level usage, we are unable to estimate the additional readership that is taking place on PMC, nor are we able to estimate the amount of reader traffic that is directed back to the APS journal websites as a result of linking from the PubMed Central record.

Acknowledgements

I wish to thank Mike Gentry, Online Production Editor at the APS for assembling the dataset and to Mark Goodwin, Editorial Manager, and Mike Gentry for their help classifying articles. This study was supported by a small grant from the APS.

References

1. American Physiological Society. APS Funding Agency Policy <http://www.the-aps.org/mm/Publications/Funding-Agencies>.
2. American Physiological Society. Open Access <http://www.the-aps.org/mm/Publications/Open-Access>.
3. Bennett L. The potential effect of making journals free after a six month embargo ALPSP/PSP, 2012. <http://www.publishingresearch.net/documents/ALPSPpotentialresultsofsixmonthembargov.pdf>.

4. Cox L. Librarians' use of usage statistics for journals and e-books. *Learn Publ* 24: 115-117, 2011. <http://dx.doi.org/10.1087/20110206>.

5. Davis PM. Open access, readership, citations: a randomized controlled trial of scientific journal publishing. *The FASEB Journal* 25: 2129-2134, 2011. <http://dx.doi.org/10.1096/fj.11-183988>.

6. Davis PM, Lewenstein BV, Simon DH, Booth JG, and Connolly MJL. Open access publishing, article downloads and citations: randomised trial. *BMJ* 337: a568, 2008. <http://dx.doi.org/10.1136/bmj.a568>.

7. National Institutes of Health. National Institutes of Health Public Access <http://publicaccess.nih.gov/>.

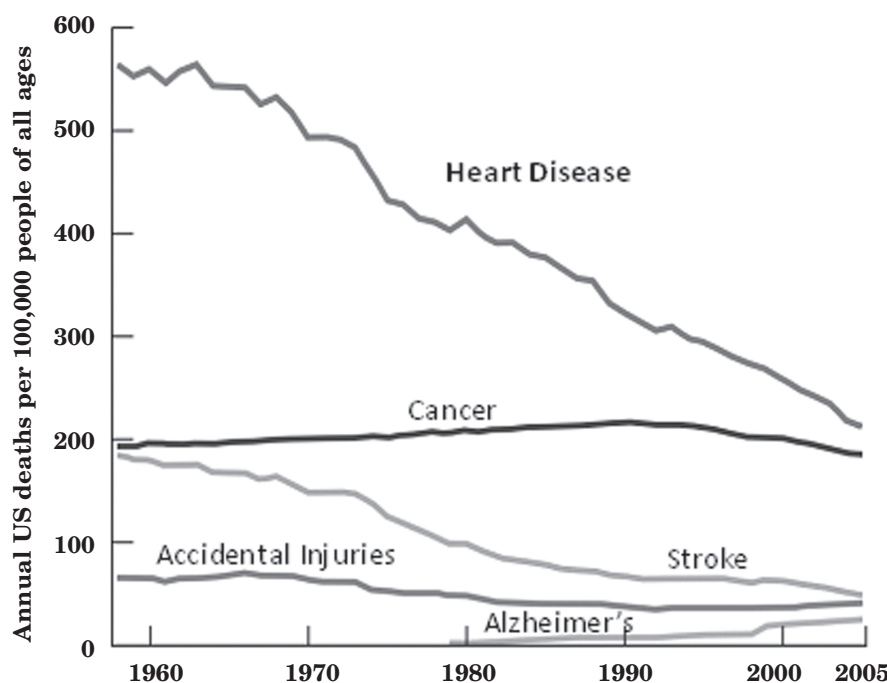
8. Publishers Communication Group (PCG). Journal Subscriptions Renewal Trends 2006-2011 Cambridge, MA: 2011. <http://www.pcgplus.com/pdfs/Journal%20Subscription%20Renewal%20Trends.pdf>.

9. Ware M. ALPSP survey of librarians on factors in journal cancellation Bristol, UK: 2006. http://www.alpsp.org/Ebusiness/Libraries/Publication_Downloads/libraryreport-summary.sflb.ashx?download=true. ❖

Corrigendum

This figure was omitted from The Physiologist, Volume 55, Number 4, August 2012, from the article National Heart, Lung, and Blood Institute: Signature Programs and Strategy, 2012, by Susan B. Shurin, M.D., Acting Director, NHLBI.

Figure. Age-adjusted US mortality from various causes ¹



¹ Source: New York Times, April 24, 2009

APS Council Holds Summer Meeting in Bethesda

The APS Council held its annual summer meeting in Bethesda, MD, July 18-20, 2012, at the Bethesda Marriott Hotel. Each summer, the Council invites the APS Committee Chairs to the summer meeting to present their annual committee reports to Council. The committee reports begin on page 182 in this issue and will be posted to each committee's web page.

Prior to the committee chairs presenting their annual reports, the Executive Cabinet met and conducted interviews for the position of Chair of the Education Committee. Thomas Pressley, the current chair, will complete his term at the end of the year. Council approved a motion to select J. Michael Wyss, Univ. of Alabama, Birmingham, as the incoming chair. Wyss will begin his term on January 1, 2013.

In addition to presenting their reports, the chairs discuss the highlights of their committees' activities and programs during the past year, and update Council on the committee's goals and plans for the coming year. The chairs also submit requests for new committee programs to Council for their approval. If the program requires new financial support, a New Programs Fund request is included with the request.

The Chapter Advisory Committee (CAC) requested Council's approval on a revised Committee Policy Document with respect to the procedure for "Probation and Dissolution of Chapters." After the CAC consulted



APS Council: Back Row: Marilyn Merker, Hershel Raff, Jane Reckelhoff, William Talman, Ron Lynch, and Alan Sved. Middle Row (l-r): Jeff Sands, Pam Carmines, Ann Schreihofer, Ida Llewellyn-Smith, John Chatham, and Thomas Pressley. Front Row (sitting l-r): Dennis Brown, Patricia Molina, Joey Granger, Susan Barman, Kim Barrett, Hannah Carey.

with attorneys, it was decided that it is not necessary to go through chapter dissolution for chapters that have become inactive.

The Council also approved a revised template for Chapter Bylaws. In the template, in Article III, Section 2 (Regular Members) it was previously required for members to have conducted and published meritorious original research in physiology. CAC feels that this requirement is too restrictive and rephrased Article III, Section 2 accordingly. Council approved the petition for chapter status by APS members in the District of Columbia. Council also approved the petition for Chapter Status and proposed Bylaws filed by APS members in the states of

Kentucky and Michigan.

As requested by the Science Policy Committee (SPC), the Council approved the establishment of an APS Early Career Advocacy Fellows program to help trainees get involved in advocacy efforts. The SPC would like to increase the involvement of trainees in advocacy activities through the creation of an Early Career Advocacy Fellow Program. Candidates would be nominated by the APS Sections, and the SPC would select three to five fellows annually.

The Porter Development Committee reported that the funding for the APS Minority Travel Fellows program that had been supported by an R13 grant from NIDDK since 1987 was ending on June 30, 2012. The program does not have enough funds to support a full additional year of the program at this time. The Committee requested an allocation of \$126,500 per year for the next five years to support the proposed APS Minority Travel Fellowship and Outreach Awards. The Council approved the allocation. Specifically, the funds will be used to support 25 minority fellows to attend the EB meeting and five minority fellows to attend an APS conference; to support two K-12 Minority Outreach Fellows to attend EB; funding for the Minority Travel Fellows orientation reception; to support K-12 Minority Outreach Fellows to attend the ABRCMS and SACNAS meetings; support the participation of minority fellows in the PST Live Course in Orlando; to support five



APS Committee Chairs: Back Row: Brian Mackenzie, Robert Brock, Harald Stauss, Gerald Meininger, Christine Maric-Bilkan, Bill Yates. Front Row: Dexter Lee, Thomas Schmidt, Angela Grippo, and Jennifer Sasser.

minority summer research teachers; and funding to conduct an evaluation of the program.

Recently the Porter Physiology Development Committee launched the “Be Counted” campaign to encourage APS members to update their membership profile to provide information on their gender and racial and ethnic groups. The goal of the campaign was to encourage all APS members to review their membership profile and update it as needed. Doing so will help APS reach out to minority and female Trainees to encourage their participation in Society and Section activities and for nominating committees to identify candidates for leadership positions from diverse racial/ethnic groups. The Committee launched the campaign during the EB 2012 meeting. The Committee said that the campaign has raised awareness of the issue and requested that Council approve the allocation of \$1,000 to print BE COUNTED sticker/bookmarks to use at APS conferences and EB in 2013. Council did approve this request.

The International Physiology Committee reported that the International Early-Career Physiologist Travel Awards program is an exciting means of encouraging the best and most promising young international physiologists to attend EB to share their research, and a means by which APS can encourage international students, trainees, and junior faculty to join APS. Because of the success of the program, the Committee requested that Council approve an increase in the number of available awards from 10 to 12 (\$1,000 each) for the participation of international early-career physiolo-



APS Employee Reception: Back Row: Martin Frank, Esther Samuel, Alice Ra’anan, James Chapman, and Susan Barman. Front Row: Eric Pesanelli, Jami Jones, Bonnie Bright, and Dell Pillers-Cline.

gists in Experimental Biology 2013. This request was approved by Council.

One of the highlights of the summer Council meeting is the employee appreciation reception. This year, APS Susan Barman hosted the reception on Wednesday, July 18 in the Hitchings Rooms of the Lee Building on the FASEB campus. The reception provides an opportunity for members of Council and the committee chairs to meet with the APS staff. During the reception, Barman thanked the staff saying, “that APS has the best staff to work with,” and that she appreciates all the work the staff does to help the Council and the APS membership. The staff is a big reason that the Society is successful.

The highlight of the reception every year is the recognition of those staff members who have worked for APS for five years or more (anniversary is based on five-year intervals). Each

employee celebrating an anniversary receives a certificate of appreciation and a gift certificate. This year APS President Susan Barman presented 20-year certificates to Eric Pesanelli (Art Editorial Manager), and Alice Ra’anan (Director, Science Policy/Government Affairs); a 15-year certificate to Dell Pillers-Cline (Business Office), and 5-year certificates to Bonnie Bright (Editorial), James Chapman (IT Director), Jami Jones (Peer Review), Daniel Pisconte (Peer Review), and Esther Samuel (Executive Office). Two other employees were not able to be present, but received their certificates prior to the meeting: Gil Ebner (Peer Review Manager) received a 10-year certificate, and Mona Trang (Editorial) received a 25-year certificate. ❖

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Tulsa Community College, OK

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Wildwood, GA

George W. Cooper
New York, NY

James Elder
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*transferred from student membership

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- Qingnian Goh**
Univ. of Toledo, OH
- Agustin Gonzalez-Vicente**
Henry Ford Hospital, MI
- Jennifer M. Haick**
Loyola Univ., MD
- David Henry Harvey**
Case Western Reserve Univ., OH
- Robert Louis Herron**
Univ. of Alabama
- David R. Hooper**
Univ. of Connecticut
- Chia Hsu**
Georgia Inst. of Tech.
- Veronica Hulstrom**
Univ. of Copenhagen, Denmark
- Muhammad Adnan Kanpurwala**
Dow Univ., Pakistan
- Jason William Kissell**
California Poly, Pomona
- Sage Phillip Kramer**
Univ. of Kentucky
- Matthew Ryan Krause**
Yale Univ., CT
- Erica Levitt**
Kansas State Univ.
- C. Madhavan**
Pondicherry Inst. of Med. Scis., India
- Hema Malini**
Pondicherry Inst. of Med. Scis., India
- Diba Mani**
Univ. of Colorado
- Shivaji Marella**
Nat'l. Inst. Mental Health & Neurosci., India
- Christopher Barry Massa**
Rutgers Univ., NJ
- Miguel Furtado Menezes**
UNESP, Brazil
- James Timothy Miller**
Univ. of Alabama
- Yannick Molgat-Seon**
Univ. of Ottawa, Canada
- Hang Thi-Le Nguyen**
Univ. of Toronto, Mississauga
- David Joseph Niles**
Univ. of Wisconsin
- Joseph Blake Norman**
Medical College of Georgia
- Akhabue Kenneth Okojie**
Univ. of Benin, Nigeria
- Pia O'Neill**
Columbia Univ., NY
- Sathiyamoorthy Pandurangane**
Pondicherry Inst. of Med. Scis., India
- Shaun R. Patel**
Boston Univ., MA
- Justin Roland Paturel**
Univ. of Western Ontario, Canada
- Sandra Perez-Aguilar**
Univ. Autonoma De San Luis Potosi, Brazil
- Alexandra Pinter**
Simmelweis Univ., Hungary
- Danielle Rachel Plomaritas**
Univ. of New Mexico
- Pericherla Satyanarayana Raju**
Andhra Med. College, India
- Kavitha Ranganathan**
Pondicherry Inst. of Med. Scis., India
- R. Siddharth**
Pondicherry Inst. of Med. Scis., India
- Webb A. Smith**
Univ. of Missouri
- Christopher Wayne Sundberg**
Univ. of Montana
- Hesham Soliman**
Univ. of British Columbia, Canada
- Lance A. Stechschulte**
Univ. of Toledo, OH
- Sooyeon Sun**
Univ. of Southern California
- Orsolya Szilagyi**
Univ. of Cincinnati, OH
- Leonardo Yuji Tanaka**
Univ. of São Paulo, Brazil
- Chidozie Bernard Uzoezie**
Univ. of East London, UK
- Freek Van Ede**
Radboud Univ., Netherlands
- Benjamin H. Vandendriessche**
Vib-Ghent Univ., Belgium
- Sathya Venkat**
Pondicherry Inst. of Med. Scis., India
- Kathryn Eileen Wack**
Univ. of Pittsburgh, PA
- Seaman Yen**
Nat'l Chung Cheng Univ., Taiwan
- Kan Hui (Nicole) Yiew**
Georgia Health Scis. Univ.

New Undergraduate Student Members

- Meg Anderson**
Central Queensland Univ., Australia
- Ester Moya Boix**
Univ. Pompeu Fabra, Spain
- Livia Soares Farah**
Univ. Presbyterian Mackenzie, Brazil
- David Samuel Grant**
Western Governors Univ., IL
- Brandon Gutierrez**
California State Univ.
- Gregory Neal Ruegsegger**
Montana State Univ., Bozeman
- Glenn Herod Sapp**
Univ. of Florida
- Leah Capri Velasco**
Grossmont College, CA

The Significance of the Porter Development Fellowship for my Career

Nathaniel G. Pitts

When I was an undergraduate at Whittier College (1965-69), I worked about 24 hours a week every year that I was in school. While I was a solid and committed science student, I did not have the chance to focus or concentrate on my studies. As I was finishing my PhD, the Porter Fellowship allowed me to focus on my science and to become more familiar and comfortable with the career in science I had chosen.

As an undergraduate majoring in Biology/Chemistry and minoring in Psychology, I worked in the campus dining hall as a busboy, a drink-boy, and later a dining room supervisor during weekdays (\$1.10-\$1.35/hour). As an upper-classman I worked for a chemical company as an intern. During summers, I would take classes and work on the college grounds crew and teach tennis, a skill I had learned in high school growing up in southern California. During my undergraduate years my energy was always split between my science studies and jobs "to make ends meet."

When I became a graduate student in the Department of Animal Physiology at the Univ. of California at Davis (1969) I did "work-study" during my first year and then was a teaching assistant for the next two years (pay about \$2,000/year). I remember trying to get financial aid my first year, and a financial aid advisor telling me I did not qualify. However, he could (and did) give me a meal ticket for the entire year which allowed me to eat in any dorm cafeteria at anytime. That was unbelievable to me! He did not seem to understand just how much aid that was to me. I also continued to teach tennis during the summers to supplement my income. During these years, I was studying my science but was unable to focus on my career.

After I passed my qualifying exams for the PhD, my major Professor (Dr. Irving Wagman) informed me that he had located a fellowship for me through the American Physiological Society, the Porter Development Fellowship, which supported minority graduate students in physiology. I had no knowledge of this award, after all, I was just a graduate student, but I was pleased for any support I could receive. By now I was married, my wife was an elementary school teacher, and this fellowship gave me almost as much money as my wife made teaching in the city schools.

I was a California resident attending the Univ. of California and so my graduate school expenses were limited (about \$70-90 a quarter for tuition). The award from the Porter Development Foundation (the name at the time) was for (I think) \$4,000 (tax free!), and that was a great deal of money in those days, especially for someone who had been working all his academic life doing other, non-science related things for financial support. That fellowship changed my life.

I remember writing a thank you letter to Dr. Clifford Barger (the overseer of the Porter Development Foundation) and informing him of the significance of this award to me. This award allowed me to stop teaching tennis during the summers and work on my research project, pain mechanisms in the spinal cord. This award allowed me to stop doing all of the non-academic related things and to focus on my chosen field of study, neurophysiology. This was the first time in my academic career that I

had been able cut away all the non-academic issues I had been forced to pursue for financial support in order to stay in school, and just do science.

I could now make solid progress with my research project without having to leave it for long (or short) periods of time. I was finally able to concentrate on my career, go to scientific meetings, read the literature leisurely, and to meet and talk to people in my field. This was a new way of life for me and the Porter Development Fellowship allowed me to get this feeling, this feeling of what it is truly like to be an academic and to be totally immersed in a specific field of study. This was something I had never experienced and it was truly enjoyable. I finished my PhD work with a positive feeling about my future.

Money would be an issue once again, when I accepted a postdoctoral fellowship at the Rockefeller Univ., working with Victor Wilson and Barry Peterson (in the original Lloyd Lab). The postdoc was on an existing grant, and was

Pitts Makes Donation to Porter Physiology Development Committee

Nathaniel G. Pitts, Porter Fellow from 1972-1974, has provided the Society and the Porter Physiology Development Program with a generous contribution through The Pitts Family Foundation. The Foundation was established by his father, Dr. Raymond J. Pitts, Sr. "for the purpose of supporting creativity in the arts, humanities, and sciences as they relate to cultural diversity in its broadest sense."

The \$50,000 contribution was pre-

sented to Dexter Lee, Chair, Porter Physiology Development Committee and Martin Frank, APS Executive Director, by Nathaniel Pitts and his sister, Fran Pitts Smith. The donation was made to support "the fellowship and career development activities of the Porter Physiology Development Committee" in recognition of "how effective the Committee has been in promoting diversity in the physiological sciences." ❖



Nathaniel G. Pitts, Dexter L. Lee, Fran Pitts Smith, Martin Frank.

for \$6,500 for the year. And I do not care what year it was, \$6,500 does not go far in New York City. To be specific, after the \$450/month rent, I remember having about \$50/month left over from that postdoc check. Fortunately, my wife got a job within the first two months. And, I taught tennis on the Rockefeller Tennis court in exchange for certain goods and services.

Prior to going to the Rockefeller, I had written to the Porter Development Foundation to see if they would consider

supporting me during any part of my postdoc period. They declined the request for postdoc support BUT were willing to provide me with \$1,100 for travel cost to move from California to Manhattan. Once again, this was monumental for me! For a long time I had learned how to piece together support in order to continue my scientific pursuit. This Porter award got me from the west coast to the east coast, from an outstanding institution to a world-renown, biomedical institution where I was considered junior fac-

ulty, and into a world class lab.

When I finally got to the National Science Foundation as an Assistant Program Director (July 1977), a bouquet of flowers came to me from Cliff Barger congratulating me on my new appointment. We remained in contact until he passed away. I made my career in science administration and had an extremely successful career at the NSF until my retirement in 2008. ❖

Summer Research Fellowships for Undergraduate Students

- Are you looking for experience working in a lab next summer?
- Do you know how to effectively network?
- Are you aware of all the career possibilities for scientists?
- Do you want to learn how to present research findings?
- Do you know how to write up your research results?

APS has 5 research fellowships now available for Summer 2013!

1. APS Undergraduate Summer Research Fellowships:

for students with little or no research experience (24 students)

2. APS Undergraduate Research Excellence Fellowships:

for students with extensive research experience (6 students)

3. National Institute of Digestive and Kidney Diseases (NIDDK) STEP-UP Fellowships:

for underrepresented students (25 students)

4. National Heart, Lung, Blood Institute (NHLBI) STRIDE Fellowships:

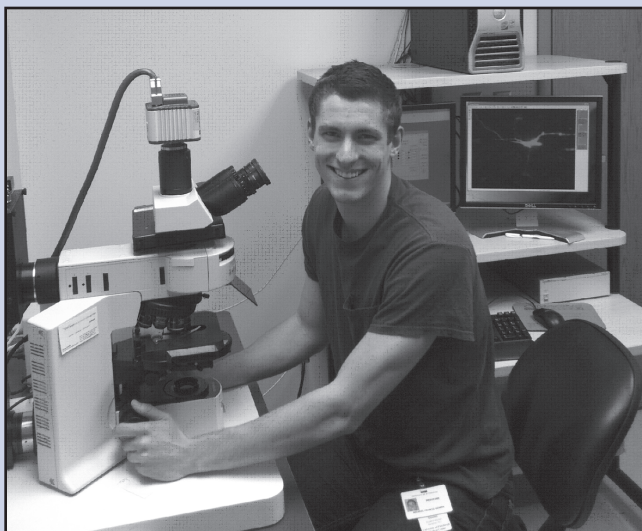
for underrepresented students (24 students)

5. NSF Integrative Organismal Systems (IOS) Fellowships:

for underrepresented students (8 students)

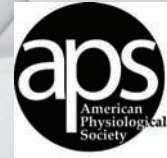
Note: Underrepresented students include students with disabilities, students from disadvantaged backgrounds, and students from specific racial or ethnic backgrounds.

For more information about any of these programs, how to apply, and deadline dates, as well as a table of applicant criteria, see <http://www.the-aps.org/summerresearch> or contact us at Education@the-aps.org. ❖



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, plus reimbursement of the advanced registration fee, a framed, inscribed certificate, up to \$750 in travel reimbursement to the Experimental Biology meeting and a complimentary ticket to the Section Dinner) 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. The award winner is announced at the APS Business Meeting during Experimental Biology.

Nominations Process: Each nominee must be nominated by a member of APS. All candidate materials must be uploaded **no later than January 8, 2013**. To upload documents, please visit the APS Award Module at the-aps.org/awardapps/login/index.cfm. Finalists will be contacted and asked to provide further information.

8-27-12



Inspire the Next Generation of Physiologists!



- ✓ Demonstrate the wonders of science to K-12 Students
- ✓ Bring your lab to do an interactive science show and tell
- ✓ The APS provides resources and support to plan your event
- ✓ Physiology Understanding Week (PhUn Week) takes place the first week of November



Plan your event now with resources found at:
www.phunweek.org

APS Receives Over \$2.3 Million in Funding from NIH and NSF to Promote Diversity Through Research Experiences and Professional Socialization Over the Next Five Years

Undergraduate Summer Research Fellowships to Broaden Participation

The two NIH-funded projects and the NSF-funded APS Integrative and Organismal Systems Physiology (IOSP) Fellowships will help undergraduate students from groups underrepresented in biomedicine to increase their understanding of and exposure to careers in biomedical research, experience biomedical research in an institute mission-related areas, develop their research and presentation skills, and become part of the professional research community (professional socialization). In addition to the IOSP Fellowships, the APS will host NSF-funded PI Meetings in years one and two. The purpose of these meetings is to share and disseminate the APS' effective broadening participation practices with the other societies that submitted proposals to the NSF IOS Broadening Participation call, but did not receive recommendation for funding.

For the three Fellowship programs, APS will recruit students nationwide from disadvantaged backgrounds, individuals from underrepresented racial and ethnic groups, and individuals with disabilities to work with researchers in NIDDK, NHLBI and NSF IOS mission areas. Students will complete not only a summer research experience and professional development activities on their campus, but

also interactive, online activities with students nationwide, exploring career options, responsible conduct of research, structuring research studies, and developing and presenting research posters. As a professional society, APS will also help students understand how professional societies can help to support and develop their skills and careers, provide a professional network of colleagues for collaboration and mentoring, and serve as an advocate for them as both student and researcher.

Collaborative Effort to Broaden Participation

APS, along with the Council on Undergraduate Research (CUR) and The Leadership Alliance (TLA), proposed a novel pilot project that specifically links the resources of the three professional societies to develop innovative initiatives that will address the recruitment of undergraduate underrepresented minority (URM) students into graduate programs in integrative organismal systems (IOS) fields and the retention of URM graduate students and postdoctoral researchers in IOS fields. The initiatives concentrate on key transitions of the educational pathway—advanced undergraduates, early graduate students (within the first two years of graduate school), and the progression of postdoctoral researchers into faculty careers. APS,

CUR and TLA will leverage our resources to develop innovative programming designed to identify URM talent in IOS fields and provide mentoring at the successive stages of the academic pathway to ensure a successful transition from one educational milestone to the next.

Specifically, CUR, TLA, and APS will build a diverse community of faculty and administrators committed to, and educated in, effective practices in recruiting and retaining individuals from URM groups in IOS fields; increase interest in and awareness of IOS careers among URM undergraduates and graduate students; enhance and expand professional development training for underrepresented minorities in IOS research fields by leveraging the professional expertise of CUR, TLA, and APS; and evaluate program outcomes and disseminate effective practices.

APS is honored to have been awarded these four grants and is looking forward to introducing a new generation of URM students to the world of physiology research and working with other societies to ensure that these students will become successful and continue in their chosen fields to help training future generations of URM researchers.

For more information about these programs, visit <http://www.the-aps.org/ugcareer> or contact the Education Office at education@the-aps.org. ❖

Recently Funded APS Fellowship Programs

Funding Agency	Fellowship Name	Total Award
NIH, NIDDK	APS Short-Term Education Program for Underrepresented Persons (STEP-UP)	\$928,800
NIH, NHLBI	APS Short-Term Research Education Program to Increase Diversity (STRIDE)	\$853,200
NSF, IOS	APS Integrative and Organismal Systems (IOS) Physiology Fellows	\$535,000
NSF, IOS	Integrating and Leveraging IOS Networks to Facilitate the Development of Underrepresented Minorities (URM) in IOS Career Paths	\$533,918*

*Collaborative effort; funds not included in sum above

24 APS STEP-UP Fellows Present Research at NIH

The 24 APS NIDDK STEP-UP Fellows recently finished their eight-12-week laboratory research experience and traveled to Bethesda, MD to participate in the STEP-UP Research Symposium held at the DoubleTree Bethesda Hotel and at NIH. They were joined by the other 62 NIDDK STEP-UP fellows from the other four Coordinating Centers (Children's Hospital, Los Angeles; Pennsylvania State Univ.; Univ. of Maryland, Baltimore County; and Virginia Commonwealth Univ.).

During the symposium, students met with Griffin Rodgers, Director of

NIDDK; Lawrence Agodoa, Director of the Office of Minority Health Research Coordination; and Delia Housel, Program Director, Office of Minority Health Research Coordination. Students presented their research as poster presentations and then as oral presentations to other participants, Coordinating Center staff members, and teams of judges from local universities and NIH. Students also heard from researchers both at NIH and at local universities on a variety of career topics.

The following APS members were involved in the symposium: *Speaker:*

Dexter Lee (Howard Univ.); *Career Roundtable Participants:* W. Brian Reeves (Penn State Univ.), Georges Haddad (Howard Univ.), Asifa Zaidi (Johns Hopkins Univ.), Rebecca Osthus (APS), and Christina Bennett (APS).

APS congratulates the 2012 APS STEP-UP Fellows on their successful research experiences and Summer Research Symposium. APS also thanks the research hosts who mentored these students and supported them in the lab.

For more information about this program, visit <http://www.the-aps.org/stepup> or contact the Education Office at education@the-aps.org. ❖



(Photo credit: Bill Branson)

APS Staff Members Brooke Bruthers and Melinda Lowy with the 2012 APS STEP-UP Fellows.

APS STEP-UP students, research hosts and their research topics.

Step-Up Fellow	Research Host	Research Title
Chasy A. Amado, Univ. of Guam	Timothy L. Righetti, Univ. of Guam	Determining Endocrine Disrupting Chemical (Atrazine and Sevin) Effects on <i>Drosophila melanogaster</i> and <i>Gambusia affinis</i>
Kwame N. Doh, Montgomery College, MD	Dexter L. Lee*, Howard Univ.	PPAR- α Regulation of Sodium Transport Mechanisms in Human Primary Renal Proximal Tubule Epithelial Cells During Acute Angiotensin II Treatment
Christian E. Donald, Morehouse College	Richard J. Auchus, Univ. of Michigan	Prevalence of UGT2B17 Deletion Allele in a Michigan Population
Sean P. Duminie, Univ. of Illinois, Urbana-Champaign	Mae J. Ciancio*, Midwestern Univ.	Heat Shock Protein 70 Improves Diet-Induced Insulin Resistance by Potentially Up-Regulating Glucose Transporter Glut-4 in Skeletal Muscle
Madeline Espineira, Univ. of Arizona	Thomas Pannabecker*, Univ. of Arizona	ClC-K1 expression in renal papillary loops of Henle—Impact on the urine concentrating mechanism
Mata'uitafa T. Faiai, Chaminade Univ. of Honolulu	Helen Turner, Chaminade Univ.	Ectopic lipid body accumulation in mast cells alters mitochondrial behavior
Binyam M. Fitwi, Univ. of Texas, Arlington	Andrew Wolfe*, Johns Hopkins Univ.	The Role of IGF1 Signaling in the GHRH Neuron
Allyson Fukuyama, Occidental College	Peter R. Hoffmann, Univ. of Hawaii	Construction of a tagged truncated Selenoprotein K to determine function
Briaira Geiger, Richard Stockton College of NJ	Teresa Zimmers*, Thomas Jefferson Univ.	COLO-205 Cells Induce Wasting in Mice and Myotubes: A New Model of Colon Cancer Cachexia
Danny Herrera, Montgomery College, MD	Andrew Wolfe*, Johns Hopkins Univ.	The Effects of Insulin on Gonadotropin-Releasing Hormone (GnRH) Secretion
Hiwot G. Kassaye, Smith College	Lijie Grace Zhang, George Washington Univ.	Design A Novel Nanostructured Titanium Coating For Improving Orthopedic Applications
Ghiara A. Lugo, Univ. of Puerto Rico	Muthuvel Jayachandran*, Mayo Clinic	Differences in Urinary Microvesicles from Healthy Controls and First Time Kidney Stone Formers
Matthew D. McCauley, Johns Hopkins Univ.	Milton Saier, Univ. of California, San Diego	Comparison of Two Systems of Transport Protein Classification: SLC and TCDB
Emily A.S. Miller, Ball State Univ.	Jagdish Khubchandani, Ball State Univ.	Psychosocial Correlates of Diabetes in Racial and Ethnic Minority Adults: Results from the 2011 National Health Interview Survey
Mai Lee Moua, Univ. of Minnesota	Irina St. Louis, Univ. of Minnesota, Twin Cities	Regulation of CELF1 Phosphorylation Throughout the Cell Cycle
Vincent Narvaez, Univ. of California, Irvine	Basil O. Ibe*, Los Angeles Biomed. Res. Inst.	Regulation of Platelet Activating Factor Receptor-Mediated Activity in Pulmonary Artery Smooth Muscle (PASM) of Newborn Lambs
Michelle A. Ramirez, Univ. of Texas, Austin	Luis Colom, Univ. of Texas, Brownsville	Amyloid Beta induces oxidative stress in septal region of rats
Yariana E. Rodriguez, Pontificia Univ. Catolica de Puerto Rico	Pedro G. Santiago Cardona, Ponce School of Medicine and Health Science	Characterization of Anti Cancer Activities of Plantago major Extracts Using Bone Cancer Cells
Wennie A. Sansing, Jackson State Univ.	Jennifer L. Pluznick*, Johns Hopkins Univ.	Identifying Taste Receptor Expression in Mouse Kidney
Stephanie M. Spehar, Univ. of Michigan	Nuria M. Pastor-Soler*, Univ. of Pittsburgh	Regulation of Aquaporins (AQPs) by AMP-activated Protein Kinase (AMPK) in Kidney Collecting Duct
Orianna P. Thomas, Johnson C. Smith Univ.	Marcella Herrera*, Duke Univ.	Expression of Cyclooxygenase 2 (COX-2) in the Mouse Collecting Duct Epithelium During Angiotensin II-induced Hypertension
Ashley D. Turner, Virginia State Univ.	Ningjun Li*, Virginia Commonwealth Univ.	Defect of Renal Medullary Stem Cell Contributing to Salt Sensitive Hypertension
Titus J. Wongk, Oakwood Univ.	Bradley T. Andresen*, Western Univ. of Health Sci.	Examining the Mechanism of the Anti-hypertensive Effects of MEK Inhibition on Angiotensin II- and Norepinephrine-mediated Hypertension
Kenneth L. Young II, Colorado State Univ.	Lawrence D. Longo*, Loma Linda Univ.	Development and Chronic Hypoxia: Changes in Ryanodine Receptors in Ovine Pulmonary Arterial Myocytes

*APS Member

APS Presents Awards for the Best Physiology Project at Local Summer Science Camp

APS members continue to judge and present Science Fair Awards on behalf of the APS at local and regional science fairs for precollege students across the nation. The student selected to have the best physiology-related project receives an APS t-shirt, an APS researcher pin, and a certificate. The student's teacher receives the APS "Women Life Scientists" book and a K-12 resource packet.

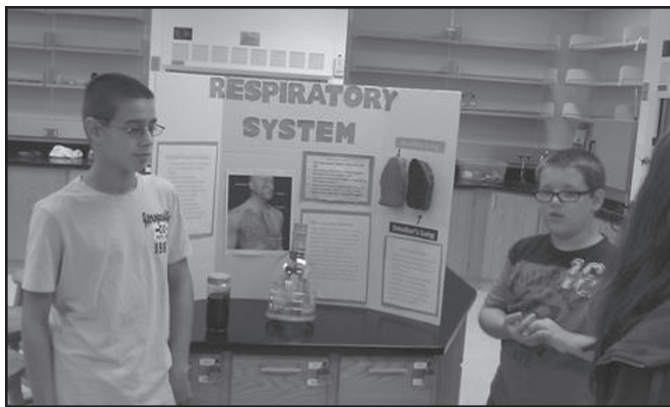
Any APS member who participates as a judge in a local or regional science fair at an elementary, middle, or high

school in their community is eligible to apply and receive an APS award packet. For more information, visit: <http://www.the-aps.org/sciencefair> or contact Scarletta Whitsett (swhitsett@the-aps.org) in the APS Education Office.

The Indiana State Univ. science camp had groups of students work together to compete for the best physiology science project. Yonah Wasik, Nate Warren, and Troy Oberste-Vorth, were the first place winners. Their project was titled, "Modeling the Renal

System: a tell of funnels and pipes." Their teacher is Lindsey Yeager. APS member Alvaro Gurovich of Indiana State Univ. was the judge who presented the award.

Nathaniel Davis and Jack McClelland received a second place award for the best physiology project. Their project was titled "The Respiratory System and why you should not smoke." Their teacher is Kitzie Hoopera. APS member Alvaro Gurovich of Indiana State Univ. was the judge who presented the award. ❖



The Respiratory System group: Nathaniel Davis and Jack McClelland.



The Renal System group in action: Troy Oberste-Vorth, Nate Warren, Yonah Wasik, and Lindsey Yeager (teacher).



Second Place: The Respiratory System. Nathaniel Davis and Jack McClelland with their trophies.



Best teacher Lindsey Yeager receiving her APS package from Dr. Gurovich.

The Graduate Student Portfolio: Organize and Energize Your Career Development

Adriana Baez, Univ. of Puerto Rico; Wendy Pacheco, Ponce School of Medicine and Health Sciences; and
Caroline B. Appleyard, Ponce School of Medicine and Health Sciences



Adriana Baez

Providing graduate students with the communication skills necessary to be successful throughout their scientific careers is a key priority in an increasingly competitive environment. To help them succeed in meeting their career goals, it is important to implement programs that will enhance their competencies and develop proficiency in these skills. Importantly, a well-designed and organized portfolio will continue to be an asset at all stages of career development as one progresses from graduate studies, through any post-graduate training, and onto the independent professional trajectory. In recent years, fewer traditional positions are available for biomedical scientists; thus, there is an increased interest in pursuing non-research/non-academic careers, such as patent law, public policy, consulting, science journalism, K-12 education, and industry. Well-designed portfolios tailored to a specific career track will highlight the student's academic achievements and leadership potential, facilitating the application process during the job search.

Types of Portfolios

Different types of portfolios have evolved to fulfil a variety of functions. In general these can be divided into three main categories: career, assessment, and developmental.

Career or professional portfolios help students organize, track, store, and maintain documents related to their training and career. This helps to showcase their skills, experience, and samples of work or accomplishments, which will supplement the curriculum vitae (CV). It also allows mentors, employers, or committees to view in more detail what they need and want to see. This type of portfolio also acts as a quick and handy reference to facilitate updating of the CV, as well as completion of fellowship and job applications. Portfolios can be an important tool to assess a candidate's strengths, weaknesses, preparation, and suitability for additional training opportunities. It also



Wendy Pacheco

provides a snapshot of the student's current status and his or her potential, thereby providing the basis for a professional development plan. *Assessment portfolios* are most commonly employed as a requirement in a course. These form a collection of work to evaluate progress and assess mastery of skills and concepts or completion of specific tasks and assignments. They are often utilized as a midterm assessment or as part of a final exam. The features of this type of portfolio are established by requirements or a rubric set forth by a college, university, program, instructor, mentor, course, or major. To achieve the desired outcome both the student and instructor must be clear about objectives for the portfolio, so that information is not collected without purpose. Since timing is critically important, the information must be collected and assessed continually so as to address any issues before problems arise.

Developmental portfolios are also known as self-assessment or reflective portfolios very similar to a journal. This reflection is oriented towards enabling connections and articulating ideas to stimulate student thinking and help them organize their thoughts and ideas. Often these are "free-flowing" without a specific format to permit students to better understand and consider the "what" and "why" of their activities. To avoid thoughts without direction ("Brownian motion"), developmental portfolios should be tied to specific objectives.

Purpose of a Career Portfolio

Graduate student portfolios are created for different purposes and are an excellent tool to evaluate and guide student development. The aim of a portfolio in a Biomedical Sciences Graduate Program is to help students track and show progress in their writing skills, content knowledge, and ability to structure research ideas. It might include a collection of files that illustrates and reflects the growth of the student through the graduate program by docu-



Caroline B. Appleyard

menting important milestones toward the completion of their degree. Creating the portfolio also provides an opportunity for refining areas of research interest and can be used to support the job search at graduation. Essentially, the CV and cover letter should stand on their own, while the portfolio supports and complements the CV. Having a portfolio that showcases their evolution and successes through graduate school will allow graduate students to be more prepared for a successful job search. Additionally, it can be highly useful as the focus for discussion between the student and the mentor(s), as an important instrument for the development of reflective skills, and as a valuable tool for self-evaluation and planning.

Students in our PhD program at the Ponce School of Medicine and Health Sciences are required to keep a career portfolio. During their orientation period they attend a training session explaining its importance and components. Because the portfolio is personal, with sections that vary for any given student depending on his/her stage in training, we do not provide a rubric to evaluate or grade the portfolio, per se, but rather provide a guideline and request a review by peers and research mentors. In review sessions with their peers, students share their portfolios and discuss what was learned in the process of building them. By seeing examples of other students' portfolios (with confidential information removed), they also share ideas and obtain feedback for improvement. Students have stated that "the review session helped to get better ideas about additional information I can include," and "[the portfolios] were very creative and show their [the students] personality." Once a year, students are required to review the portfolio with their research mentor as part of their scheduled meetings. This gives the mentor a starting point to discuss professional development plans and helps identify and address areas of strengths and improvement.

Components of a Career Portfolio

The portfolio should contain the basic elements shown in Table 1 tailored to the needs and the stage of training of the individual. Students in early stages of their studies might wish to include details of transcripts, academic diplomas, conferences and meetings attended, awards or recognitions received, and fellowships submitted. As training progresses the portfolio should include oral or poster presentations given at scientific conferences, copies of published articles, evidence of specialized training received or courses attended, details of certifications or licenses obtained, academic diplomas, memberships in professional associations, and grant proposals submitted. Additional content can be included to enhance the portfolio and tailor it specifically to positions being pursued. Initiatives such as serving in the graduate student committee will help the student develop leadership skills and contacts that will be highly useful for their future. Educational activities, particularly those that respond to needs identified by the local community, will strengthen the student's teaching and communication skills and contribute to the growth of the communities addressed. A section for comments from research advisors and mentors, evidence of committee work and peer mentoring, and letters of reference can be very practical and informative as well. A process portfolio, a visual depiction of how a specific project or problem was solved, can also form part of the career portfolio. Complicated, dense sections may start with a narrative or summary explaining what is to come. At all stages a personal statement helps to focus the overall goals of the trainee.

Format

Although traditionally the portfolio exists in a paper format, there are other options available, such as e-portfolio, web, and video. Each format has advantages and limitations depending on the preference and needs of the trainee. The electronic format is easily accessible and transportable. It is also easy to share, store, and allows cross-linking capabilities (directly linking to publications, professional websites, etc.). However, this type of portfolio requires that the viewer be knowledgeable and comfortable using technology. One must also be careful not to give an

impression of too much focus on format and flash instead of content and substance. It should also be remembered that technology is not 100% secure or safe—a back-up is vital and sensitive information should not be included. The most common format for the portfolio is still the hard copy, in which a collection of documents are kept in a sub-divided binder. This not only organizes but also allows readers to easily access and view sections of particular interest. Even when using this format, keeping an electronic folder of portfolio contents as an additional backup is a good idea.

The Verdict: A Portfolio is a "Very Useful Tool"

Based on feedback, most students were pleased with the process of preparing their portfolios. Likewise, mentors were impressed with the portfolios, often offering suggestions on format and content. Interestingly some mentors stated that they had been unaware of the extent of work or level of accomplishment of their students over the years: "I had no idea how much [the student] had done prior to joining my lab," "very useful tool," and "students will greatly benefit from having their professional research experience in this organized manner." It gave them a broader view and appreciation of how far the student had come, as well as a

visual representation and reminder of what has yet to be accomplished. Similarly, students reported improved self-esteem on seeing all their progress and achievements together in one place. Students stated that "[the portfolio] helped me organize all my data and important papers making things easier to find," "It felt good to visually see all my accomplishments and skills," "the portfolio increased my self-esteem," and "...taught me to save items even if I think they are not important because they may be useful later."

Although the portfolio involves an increase in workload for both the student and mentor, the effort put in on a regular basis will ensure that, when needed, all the components are readily available at short notice. This will provide tangible benefits, such as improved competitiveness and time savings, when submitting applications for travel awards, fellowships, and workshops.

The portfolio is very personal and constantly evolving to fit its purpose. As a student progresses, he/she will need to update the portfolio contents, editing as necessary. It should always be remembered that the portfolio is a tool and its contents must be in line with its purpose.

To comment on this article, go to: <http://www.the-aps.org/forum-portfolio> . ❖

Adriana Baez is Professor of Pharmacology & Otolaryngology at the University of Puerto Rico School of Medicine. She has been the Director of Research in the Department of Otolaryngology for nearly 20 years, working directly with the Otolaryngology residents in the design and execution of their clinical research projects. She has extensive mentoring experience and leads the Puerto Rico Clinical and Translational Research Center's mentor training program. Baez is a member of the external advisory committee for the RISE graduate student training program at Ponce School of Medicine and Health Sciences (PSMHS).

Wendy Pacheco is Coordinator of the RISE program at PSMHS. She possesses over 10 years of experience working with students and faculty in graduate and undergraduate institutions in Puerto Rico, the USA and Europe in

the offices of admissions, student affairs/services and financial aid.

Caroline B. Appleyard is Program Director for the RISE program at PSMHS. She is a Professor in the Departments of Physiology & Pharmacology, and Internal Medicine at PSMHS with an active research program directed towards understanding the influences of the brain-gut-microflora axis in the pathophysiology of gastrointestinal inflammation, and the transition from inflammation to dysplasia in colitis-associated colon cancer. She has personally mentored over 70 underrepresented students at all levels in her laboratory. The RISE program is supported by NIH-NIGMS (GM082406) and provides professional development and career skills training for graduate students pursuing a PhD in Biomedical Sciences in order to strengthen their future competitiveness.

The following article summarizes a presentation given as part of the symposium entitled National Institutes of Health: Programs and Policies Updates from the Institutes at the 2012 Experimental Biology meeting. Additional articles based upon symposium talks were published in the August 2012 issue.

Common Fund Programs: What are they and are you Eligible for Funding?

Elizabeth L. Wilder

Director, Office of Strategic Coordination, NIH

The NIH Common Fund (<https://commonfund.nih.gov>) was established via the 2006 NIH Reform Act, but relatively few investigators know what it is, are aware of the science that it supports, or how they may benefit. Yet with an annual budget of over a half billion dollars, a mission that spans the gamut of NIH-supported science, and a mandate to address the most pressing problems and opportunities in biomedical research, the Common Fund is worth some attention.

The broad purpose of the Common Fund is to support cross-cutting, trans-NIH programs that require participation by at least two NIH Institutes or Centers (ICs) or would otherwise benefit from strategic planning and coordination. With such a broad mandate, the NIH Leadership, which consists of the NIH Director, Deputy Directors, and the Directors of all of the ICs, framed additional criteria that are used in the selection of Common Fund programs.

These criteria have led to programs which support the development of research tools, methods, technologies, or large datasets that can be broadly useful. They have also led to fundamental discovery programs in which investigators work as consortia to define entirely new biological paradigms. But approximately a third of the Common Fund's budget supports investigator-initiated transformative research through the High Risk/High Reward (HRHR) series of initiatives.

The Common Fund HRHR initiatives are designed to test new ways to support innovation. They include the Pioneer, New Innovator, Transformative Research, and Early Independence Award programs. Each initiative is open to the entire spectrum of NIH-supported science, but the New Innovator and Early Independence Awards focus on early career investigators. Each of these initiatives solicits applications annually in the summer or fall.

Although the goals of the HRHR initiatives is to spur innovation and creativity towards goals defined by individual investigators, two thirds of the Common Fund addresses goals that are

defined through a strategic planning process. Common Fund strategic planning involves extensive input from the scientific community to identify the most pressing challenges and opportunities. Although the Common Fund is often perceived as "top down," the establishment of goals for each program is based on a "bottom up" process through which needs are identified. The programs are then designed to meet the needs of the community, and their implementation involves frequent external input about the utility of data being generated, tools being developed, etc. Requests for input from the community are frequent—through "Requests for Information" issued via the NIH Guide, through social networking strategies, or

through external panel meetings. Opportunities to provide input are advertised through the Common Fund Connection newsletter and via the website. Register here to receive the Common Fund Connection: <https://commonfund.nih.gov/register.aspx>.

As a result of Strategic Planning, new Common Fund programs are launched each year. In Fiscal Year (FY) 2013, the Common Fund Extracellular RNA Communication Program will begin supporting a network of investigators to establish fundamental biological principles that govern the secretion, distribution, uptake, and function of extracellular RNAs. This consortium will also profile secreted RNAs from a variety of body fluids and explore their utility in clinical

Goals for Representative Common Fund Programs

Increasing Metabolomics Research Capacity: Recent advances in technology have enabled metabolomic analysis to be conducted in basic and clinical research settings. However, the use of these technologies is limited by the number of research centers that have the necessary equipment and expertise to conduct the studies. The field is also hampered by a lack of uniform standards for identifying unknown metabolites. The Common Fund's Metabolomics program is intended to establish the resources, training, technology development, and standards to catalyze the field of metabolomics to advance scientific discovery and clinical practice. It also facilitates the dissemination of data through an informatics component and through the establishment of an international consortium.

Protein Capture: This program is designed to stimulate basic discovery and clinical translation through the development and dissemination of protein binding reagents. A renewable resource of protein capture reagents is need-

ed for protein isolation, high-throughput assays, diagnostics, and biomarker development. To have the maximum benefit, such reagents need to be high quality, affordable, and reliable. This program provides support for the development of new technologies as well as for the provision of monoclonal antibodies. Begun as a pilot, the program is developing capture reagents directed toward transcription factors, but is testing the quality, utility, cost, and ability to scale up to address other protein families.

Knockout Mouse Phenotyping Program: Recognizing the value and utility of a readily-accessible, genome-wide collection of mouse mutants, an international consortium was developed in 2006 to develop mutant mouse constructs. The Common Fund program builds upon this resource by generating mutant strains from these constructs and characterizing the resultant phenotypes. The data are being made available to the entire research community through an internationally-coordinated effort.

applications. Requests for Applications to participate in this network were issued the first week of August, with applications due in November.

Strategic Planning for FY 2014 programs is ongoing. The first phase of planning resulted in the selection of several topics that are receiving further consideration (<https://common-fund.nih.gov/planningactivities/overview-planning.aspx>). More extensive input will be gathered from relevant scientific communities over the next several months, and the current research landscape for each topic will be assessed. Are there critical gaps where Common Fund investment could have a significant impact? What are the challenges that must be met to fill these gaps?

NIH Common Fund programs are intended to be:

- **Transformative:** Must have high potential to dramatically affect biomedical and/or behavioral research over the next decade
- **Catalytic:** Must achieve a defined set of high impact goals within a defined period of time
- **Synergistic:** Outcomes must synergistically promote and advance individual missions of NIH Institutes and Centers to benefit health
- **Cross-cutting:** Program areas must cut across missions of multiple NIH Institutes and Centers, be relevant to multiple diseases or conditions, and be sufficiently complex to require a coordinated, trans-NIH approach
- **Unique:** Must be something no other entity is likely or able to do.

Common Fund programs are at varying stages of completion, but information on their current status and links to publicly available resources are available through the Common Fund website. The Common Fund is intended to address common challenges and opportunities. Its success depends on input

from stakeholders across the community. The more we hear from you about the needs to be addressed and the utility of resources that are being developed, the more effective the Common Fund will be at achieving its mission. ❖

Senate Panel Endorses Chimp Research Ban

On July 25 the US Senate Environment and Public Works Committee gave its endorsement to the Great Ape Protection and Cost Savings Act (GAPSCA) of 2011 (S. 810). This bill would eliminate virtually all biomedical and much behavioral research involving chimpanzees, the only great ape species utilized in health research. Although the committee approved the bill by voice vote, three Republicans asked that their opposition be recorded. The committee's action clears the way for the full Senate to take up the legislation.

S. 810 would phase out all invasive research involving chimpanzees and send all government-owned chimpanzees to sanctuaries. The bill uses a broad definition of the term "invasive" that would preclude even procedures such as blood draws or MRI imaging studies if sedation were required.

During the markup the bill was amended so that chimpanzee research could be resumed in the event of a public health crisis. However, to do so would require a series of steps, starting with the convening of a Great Ape Research Task Force by Secretary of Health and Human Services. This Task Force, charged with reviewing proposed research, would be required to consult with the USDA's Animal Welfare Information Center and would need to

publish the proposals for public comment. The Task Force is not, however, required to seek scientific input other than from two individuals, one with scientific expertise in the use of great apes for the area of research under consideration, and one with scientific expertise in the use of other research models.

The amendment was sponsored by Sen. Ben Cardin (D-MD), who said it provides an "independent process" to determine when chimpanzee research might be necessary. Sen. James Inhofe (R-OK), the senior Republican on the EPW Committee, made a point of going on the record in opposition to the bill, saying that it "goes too far." Inhofe noted that the last year's Institute of Medicine (IOM) report "does not endorse an outright ban on chimpanzee research." He further noted that the IOM study cautioned that such a ban would be "disruptive" and that "chimpanzees may prove uniquely important to unraveling the mystery of diseases that are unknown today." Senators Lamar Alexander (TN) and Sen. Mike Johanns (NE) also asked that their opposition to the bill be recorded.

NIH has already taken steps to implement the IOM's criteria for assessing chimpanzee research through a Chimpanzee Working Group established within the Division of

Program Coordination, Planning, and Strategic Initiatives. The IOM criteria include whether the proposed research addresses an important health problem; whether an alternative research model is available; whether the animals will be provided appropriate housing and care; and how the need for the research compares with its impact on the animals themselves.

GAPSCA supporters claim that a ban on chimpanzee research is justified because the IOM said that much current chimpanzee research is unnecessary. However, the IOM also said that some chimpanzee research will be needed until equally effective alternatives are available. Critics of GAPSCA note that it would phase out all so-called invasive research, including studies that meet the IOM's criteria as scientifically necessary and ethically appropriate. The panel further stated that the US should maintain its research capacity against the possibility of new infectious disease challenges in the future. Critics say that the amended bill also fails to accomplish this.

For more information about this issue see <http://www.the-aps.org/ChimpResearch>.

S. 810 must still be considered by the full Senate. No legislative action has yet been taken on H.R. 1513, which is the House version of the bill. ❖



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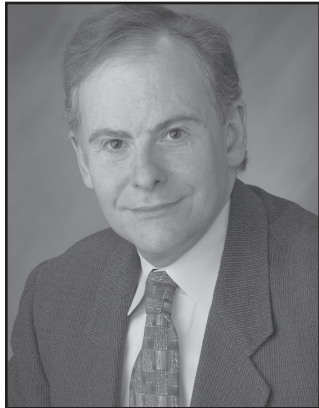
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Animal Care and Experimentation



Bill J. Yates, Chair

Animal Research Advocacy

A key feature of the ACE Committee's fall 2011 meeting was a day of Capitol Hill visits. Members of our committee participated in a total of 26 meetings in which we explained our support for the humane treatment of laboratory animals, as well as our opposition to two bills that would adversely affect the use of animals in biomedical research. These bills are benignly-titled the "Great Ape Protection and Cost Savings Act" and the "Pet Safety and Protection Act." We met with staff for the members of the Congressional committees with jurisdiction over the bills, as well as with a number of co-sponsors of the legislation. In addition, during the spring and summer, APS circulated legislative alerts with sample letters to enable researchers to voice their opposition to the great ape bill because it was the subject of a hearing and a mark-up in the Senate. This legislation would terminate virtually research involving these animals in direct contradiction to the recommendations of an Institute of Medicine panel.

Reporting Animal Studies in APS Publications

The ACE Committee worked with the APS Publications Committee to modify the journal Instructions for Authors in light of two recent reports containing recommendations about how animal studies should be reported. According to the updated APS instructions, "The description of animal procedures in the manuscript should be sufficient to permit readers to evaluate the quality of the data presented and to replicate the experiments, if needed." The instructions also address the mitigation of pain and distress:

Studies involving surgeries or other painful procedures must include an explanation of steps taken to mitigate pain and distress, including the types and dosage of anesthetics and post-operative analgesics that were used.

The instructions also provide links to the recommendations of the two reports. One is the Institute for Laboratory Animal Research's Guidance for the Description of Animal Research in Scientific Publications. The other is the National Centre for the Replacement, Refinement and Reduction of Animals in Research's Animals in Research: In Vivo Experiments.

APS Journals' Ethical Review Procedures

To help APS members and potential authors understand the processes used to scrutinize submitted manuscripts, APS Publications Vice-Chair Kim Barrett and I co-authored an article explaining the procedures used to ensure the scientific integrity of articles involving data from human or animal subjects. "Reporting of Studies Using Animal and Human Subjects in APS Journals: How the Society Protects Authors from Ethical Minefields" was published in the February, 2012 issue of *The Physiologist*. (<http://www.the-aps.org/mm/Publications/Journals/Physiologist/2010-present/2012/February.pdf>.)

Advocacy Resources

The ACE committee organized a symposium on public outreach that was presented at Experimental Biology 2012 in San Diego. The goal of "Public Outreach and Animal Research: a Toolkit for Investigators" was to discuss various approaches. The speakers were Dario Ringach (a neurobiologist from UCLA's Jules Stein Eye Institute) John Young (attending vet at Cedars-Sinai and Board Chair for Americans for Medical Progress), and Jim Newman (Media Team Leader at Oregon Health & Science Univ.). A summary is available on the APS website at <http://the-aps.org/mm/SciencePolicy/Animal-Research/Current-Issues/Public-Outreach-for-Investigators.html>, and Flash videos syncing symposium audio to the PowerPoint slides may be viewed at <http://the-aps.org/mm/SciencePolicy/Animal-Research/Current-Issues/Public-Outreach-Toolkit>.

Chimpanzees in Biomedical Research

The Great Ape Protection and Cost Savings Act is the latest iteration of legislation that would prohibit all research on great apes. It is grounded in the premise that "research laboratory environments involving invasive research cannot meet the complex physical, social, and psychological needs of great apes." The ban would primarily halt studies involving chimpanzees, which are most commonly used in immunological research. The bill defines the term "invasive research" so broadly that it would ban even procedures such as drawing blood and recording observations using MRI technology if sedation is required. The bill has made progress in the Senate where an Environment and Public Works (EPW) Subcommittee held a hearing on the legislation in April. The full EPW Committee subsequently reported out an amended version of the bill. Supporters claim that the amended version incorporates the recommendations of an Institute of Medicine (IOM) study panel, but critics say that the procedures for resuming chimpanzee research in the event of a public health crisis would be unworkable. Meanwhile, NIH has already established its own working group to implement the IOM panel's recommendations.

8th Edition of the Guide for the Care and Use of Laboratory Animals

All institutions receiving research funds from federal agencies are required to comply with the Guide for the Care and Use of Laboratory Animals. In 2008, NIH asked the Institute for Laboratory Animal Research (ILAR) at the National Academy of Sciences to review and update the Guide. The project that lasted two years, and the ACE committee monitored it closely, including providing detailed comments for the ILAR panel's consideration.

In January, 2011, a new 8th edition of the Guide was released. Shortly thereafter, NIH asked for public comments, which revealed serious concerns about certain changes regarding as rodent cage densities and social housing. After reviewing these comments and concerns, in December, 2011, NIH announced that the new Guide would go into effect on January 1, 2012, but that there would also be a number of position statements to aid institutions in implementing the Guide. The ACE committee reviewed these position statements and determined that they provided adequate flexibility. The position statements are posted at http://grants.nih.gov/grants/olaw/positionstatement_guide.htm.

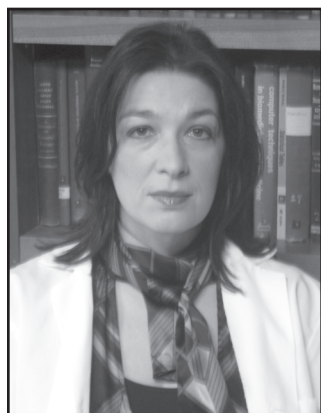
Future Activities

During the coming year, the ACE Committee will work on several projects discussed at our EB 2012 meeting. These include developing an online course highlighting the importance of animals in biomedical research; exploring perceived disparities between study section treatment of grants involving rodent and non-rodent animal models; developing slides highlighting the contributions of animal research to medical advances; monitoring regulatory issues; and partnering with other organizations.

The ACE and Science Policy Committees also jointly proposed to Council a Chapter Advocacy Outreach program that would send speakers to two-three APS Chapter meetings per year. The two committees will identify speakers who can make presentations on topics related to the humane use of animals in biomedical research and research funding advocacy. This program is intended to fulfill the 2010 Strategic Plan goals of increasing Society advocacy and encouraging greater engagement with the Chapters. The APS Science Policy Office began one initiative with this in mind when it created creating Science Policy News, a monthly email bulletin of advocacy-oriented information that is being disseminated to the Chapters and the Sections through a designated advocacy liaison, who relays the information via listserv or newsletter.

- Council accepted the report of the Animal Care and Experimentation Committee.

Awards



Christine Maric, Chair

The number of applications received for both the Research Career Enhancement Award (RCEA) and Teaching Career Enhancement Award (TCEA) was dramatically lower than in previous years. A total of eight applications for the RCEA were received and none for the TCEA; this compares to 12 RCEA and three TCEA in the previous fiscal period. While the Committee has not previously been concerned about the RCEA, the TCEA continue to attract the fewest

applicants. The concern is that the quality of the RCEA applications seems to have declined. As a result, at the Awards Committee annual face-to-face meeting during EB, the future of both the RCEA and TCEA awards were discussed. It was decided that a survey of past RCEA recipients would be conducted to determine the impact of these awards on one's career. The Committee decided to broaden the applicant pool for the TCEA and send out additional calls for applications through APS-associated list-serves.

The Young Investigator Award (YIA) continues to attract the most number of extremely competitive applications. This past fall seven applications were received for the Arthur C. Guyton Award, 13 for the Lazaro J. Mandel YIA, 13 for the Shih-Chun Wang, YIA and 32 for the inaugural Dean

Franklin YIA. Unlike the RCEA and TCEA, the numbers of applications received for these awards is on the rise. Furthermore, the quality of the applications received was outstanding, especially for the newly established Dean Franklin YIA.

Despite the fact that the Postdoctoral Fellowship in Physiological Genomics will no longer be offered, this award has been very popular over the years, including this year, in which 30 applications were received.

The Committee tracks the gender distribution of the applicants and recipients for these awards. The Committee will continue to track this information and discuss ways to try to increase the number of women applicants. The Chair will also work on this issue with the Women in Physiology Committee.

The APS Awards Committee met on April 23, 2012 at 7 am at the Experimental Biology Annual Meeting in San Diego, CA. At that meeting, the Committee specifically discussed the following:

- The Committee was informed that the Postdoctoral Fellowship in Physiological Genomics will no longer be supported by the APS since it has outgrown its original purpose. The members of the Committee were supportive of the idea of using these funds towards another award type.
- The Committee was charged with developing ideas for a new award or Fellowship (to, in essence, replace the Physiological Genomics Award). The Committee will submit their ideas to the Committee Chair who will compile the suggestions and discuss with the members before submitting a recommendation to the APS Council.
- The future of the Research and Teaching Career Enhancement Awards were discussed: while a fair number of applications for the RCEA were received, very few were received for the TCEA. The Committee Chair will survey past recipients of the RCEA to get an idea of the impact of the award may have had on their careers. One of the members of the committee volunteered to work together with the Education Committee in promoting the program to attract more competitive applications.

2011-2012 Award Recipients

RCEA and TCEA Award Recipients

Fall 2011 RCEA recipient is Gregory Funk Department of Physiology, Univ. of Alberta, Edmonton, Canada.

Spring 2012 RCEA recipient is Cynthia Smas, Department of Biochemistry and Cancer Biology, Univ. of Toledo College of Medicine, Toledo, OH.

Fall 2011 TCEA; no award made.

Spring 2012 TCEA; no award made.

Young Investigator Awards

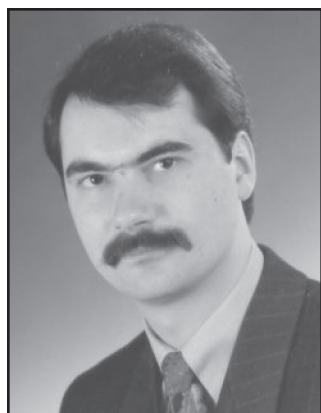
The APS has three Young Investigator Awards, the Arthur C. Guyton Award for Excellence in Integrative Physiology, the Shih-Chun Wang Young Investigator Award, and the Lazaro J. Mandel Young Investigator Award. The Arthur C. Guyton Award was awarded to Feilim Mac Gabhann, Department of Biomedical Engineering, Institute for Computational Medicine, Baltimore, MD. The Lazaro J. Mandel was awarded to Marcelo Carattino, Department of Medicine, Univ. of Pittsburgh School of Medicine, Pittsburgh, PA. The Shih-Chun Wang was awarded to Qi Fu, Department of Internal Medicine, UT Southwestern Medical Center, Dallas, TX.

Postdoctoral Fellowship in Physiological Genomics

The recipients of the Postdoctoral Fellowship in Physiological Genomics are Karla Garcia-Pelagio, Department of Biochemistry, National University of Mexico, Mexico and Tatum Simonson, Department of Physiology, Univ. of California, San Diego.

- Council accepted the report of the Awards Committee.

Chapter Advisory



Harald M. Stauss, Chair

Over the last year, APS members in five different US States or local regional areas met and enthusiastically discussed the steps necessary to initiate local APS Chapters and defined goals and missions for their potential new APS Chapters. Such goals include promotion of translational and/or integrative physiological research, assistance of trainees in their career development, or supporting minorities and women at all levels of their training as physiologists. The outcomes of these discussions have been three Petitions for Chapter Status brought before APS Council by APS members in Michigan, Kentucky, and the Greater Washington D.C. regional area. APS members in Missouri and Minnesota are likely to file Petitions in the near future. The continuous rise in the number of local APS Chapters started five years ago, when Peter Lauf, the first Chair of the Chapter Advisory Committee and current Sage, started a nationwide campaign to promote the formation of new APS Chapters, and demonstrates that the APS Chapter program is moving in the right direction.

While APS members in Michigan, Kentucky, the Greater Washington D.C. regional area, Missouri, and Minnesota discussed the formation of new Chapters, Physiologists organized in existing APS Chapters have been highly creative in designing new and innovative local outreach programs through the new Chapter Activity Grant program that APS Council approved last year. APS awarded a total of \$6,000 to the Nebraska (\$2,000), Puerto Rico (\$1,000), Gulf Coast (\$1,000), Iowa (\$1,000), and Arizona (\$1,000) Chapters. These funds will be used to acquire Physiology Outreach Resource Kits used in outreach activities and otherwise fund lectures, demonstrations, and other activities at K-12-institutions; to host undergraduate students at Physiology laboratories and introduce them to cutting edge physiology research; to organize career fairs, bringing together students, trainees, and representatives from the industry and from academia; and to organize a seminar series where APS Chapter members travel to K-12-institutions, Community Colleges, and other Institutions to present lectures on their research activities or on general aspects related to physiology and/or science policy advocacy.

Last year, 636 Physiologists met at annual meetings organized by nine different APS Chapters. For their outstanding research presented at the annual Chapter meetings, 37 trainees (undergraduates, graduate students, and postdoctoral fellows) received trainee awards. Specifically, some undergraduate awards consisted of travel stipends provided by individual APS Chapters to attend and present research data at the Experimental Biology meeting. Some of these undergraduate students received the David S. Bruce Excellence in Undergraduate Research Award, which is awarded by APS based on oral presentation of the poster to the David Bruce Award Selection Committee at the Experimental Biology meeting.

Starting this year, all Chapters have named a “Science Policy Advocacy Liaison Representative,” who will receive the monthly APS Science Policy News Update and will relay pertinent information contained in this document to Chapter officers and the general Chapter membership. This will ensure that Chapters receive relevant information regarding science policy issues and advocacy opportunities. The liaison will also serve as the conduit through which Chapters communicate with Science Policy and Animal Care and Experimentation Committees. We anticipate enhanced communication with these committees that may potentially foster local activities related to science policy issues and advocacy, possibly funded through the Chapter Activity Grant program.

In conclusion, APS Chapters promote, at the local state-wide level, the various missions of The American Physiological Society through annual scientific meetings, participation in APS PhUn (Physiology Understanding) week activities (<http://www.phunweek.org>), sponsoring science fair projects, outreach activities to the general public, and other activities. Every other Chapter utilized the new Chapter Activity Grant Program to secure funding to realize such activities. If you are interested in joining existing Chapters or fostering a new Chapter please contact me at harald-stauss@uiowa.edu. In closing I would like to thank all APS Chapter members who—at the local grass root level—enthusiastically volunteer their time and effort to promote our discipline that captivated some of us throughout a lifelong career.

- Council accepted the report of the Chapter Advisory Committee.
- Council approved the revised Chapter Advisory Committee Policy Document.
- Council approved the revised template for Chapter Bylaws.
- Council approved the revised Bylaws for the Indiana Chapter.
- Council approved the petition for chapter status by APS members in the District of Columbia.
- Council approved the petition for Chapter Status and proposed Bylaws filed by APS members in the state of Kentucky.
- Council approved the petition for Chapter Status and proposed Bylaws filed by APS members in the state of Michigan.

Career Opportunities in Physiology



2011 Session Web Resources

Multimedia presentations for the EB 2011 Careers Symposium, “New Opportunities in Non-traditional Academic Positions,” were edited and posted at the APS website and catalogued at the APS Archive of Teaching Resources for wide dissemination. Users can listen to a narrated PowerPoint presentation. The resources include:

- Thomas J. Schmidt, Chair**
- Survey report from Department Chairs on Non-traditional Opportunities, Thomas Cunningham, Univ. of North Texas HSC at Fort Worth
 - Non-traditional Teaching Opportunities, Kathryn M.S. Johnson, Beloit College
 - Non-traditional Research Opportunities, Lakshmi Santhanam/Lacy A. Holowatz, Johns Hopkins Univ./Pennsylvania State Univ.
 - Future Trends in Medical Institutions from Provost's Perspective, Meredith Hay, Univ. of Arizona

2012 Careers Symposium

In 2012 the Career Opportunities in Physiology Committee (COPC) and Trainee Advisory, and Women in Physiology Committees coordinated the topics of their sessions to provide a complimentary set of career advancement sessions for physiologists. Committee members John Imig and Sonya Coaxum chaired the session entitled, “Do I Need Another Degree?” Speakers provided presentations about various additional degrees scientists are pursuing to increase their ability to be competitive for new job opportunities in science, including JD, MBA, and MPH, as well as internships.

2013 Career Symposium

In 2013, Committee members Sonya Coaxum and Lisa Leon will co-chair the Symposium, “Communicating Science to Non-Scientists: Keys to Funding and Visibility.”

Career Presentations at APS Conferences

In 2011, the Committee presented a two-hour workshop at the APS Conference, “7th International Symposium on Aldosterone and the ENaC/Degenerin Family of Ion Channels: Molecular Mechanisms and Pathophysiology,” using materials from the Professional Skills Course. The workshop, “The “Ins” and “Outs” of Authorship,” was presented by Committee chair Thomas Schmidt and focused on how authorship on manuscripts is determined and engaged participants in an authorship case study. Schmidt also shared an overview of the career development resources offered by the APS, including the Professional Skills Courses.

In 2012, the Committee will sponsor a workshop at two APS Conferences: “Autonomic Regulation of Cardiovascular Function in Health and Disease” in July and “2012 APS Intersociety Meeting: The Integrative Biology of Exercise” in October. Irving Zucker, former APS President, will present

“The Ins and Outs of Authorship,” workshop in July, and Committee member Lacy Holowatz will present it in October.

Undergraduate Summer Research Fellowship Program

The 2011-12 Undergraduate Summer Research Fellows (UGSRFs) completed their fellowship year by attending EB 2012 in San Diego, CA. Of the 24 fellows, 22 (92%) attended EB and 19 (79%) submitted an abstract. The 2011-12 UGSRFs, like those in the past, competed successfully in the David S. Bruce Excellence in Undergraduate Research Award program, winning six of the 26 abstract awards and four of the 11 Bruce Awards.

2012-2013 Program

For the 13th year of the program, 55 applications were received, similar to many previous years. The quality of the applications was deemed very high by the Committee and they recommended 24 students for fellowships; these students were subsequently approved by Council. Thus, 44% of the applications were funded, which still allowed for high selectivity on the part of the Committee. For the first time this year, a Fellowship was awarded to a student working with a former UGSRF, who is now a faculty member. Over the 13-year history of the program, the program has received 650 applications for the 228 awards granted, with an average funding rate of about one-third (35%).

APS Undergraduate Research Excellence Fellowship Award

The Undergraduate Research Excellence Fellowship (UGREF) Program annually will support six full-time 2nd–4th year undergraduate students who have more than six months experience to continue to work in the laboratories of established investigators. Both students and faculty sponsors/advisors must be active members of the APS in good standing. These Fellowships provide a \$4,000 summer stipend to the student (10 weeks support @ \$10/hour), a \$300 grant to the faculty sponsor/advisor, and a \$1,300 travel award/reimbursement for the students to attend and present their data at Experimental Biology. Funding for the program is provided by the APS. Awardees will be selected by the Committee with subsequent approval by Council.

The UGREFs will complete interactive online assignments using Blackboard, exploring how to structure a research project/series of experiments and exploring/discussing physiology-related careers. These online activities and conversations have proven exceptional for the UGSRF program, with students discussing not only their research but also their hopes and concerns about their future careers and families. The UGREF activities will build on UGSRF activities, developing UGREF’s writing and presentation skills.

Announcement Process: A website has been developed for all APS undergraduate research fellowship programs (www.the-aps.org/ugawards) and includes a key for undergraduates to determine the programs for which they would be eligible. A specific website has been developed for the UGREF award as well (www.the-aps.org/ugref).

Undergraduate Orientation Session at EB

The EB 2012 orientation session attracted 75+ undergraduate students. All undergraduate students who submitted a first-

author physiology poster were invited and announcements were posted in emails to the Trainee and All-APS listservs. Members of the Careers, Trainee Advisory, and Education Committees gave the session presentations. President-elect Susan Barman welcomed all of the undergraduate students and presented certificates to the UGSRF Fellows.

APS Local and Regional Science Fair Awards

Since July 2010, 31 requests for a Science Fair Award packet have been received from APS members. Thirty APS members have made science fair awards this year.

APS Careers Web Site

In 2011-12, the Education Office reconfigured the career website and resources to provide easier access to the growing set of professional development resources APS has developed for trainees. K-12 and undergraduate students will still find specific areas with career resources, biographies, and physiology exploration activities. For physiology trainees, a "Career Development and Mentoring Forum" provides one-click access to the diverse resources (webinars, EB symposia, Mentoring Forum articles, etc.) that APS has developed. Resources are sorted by topics, then by career level (graduate, postdoc, etc.).

Physiology Video Contest for Undergraduate and Graduate Students

The Committee received 11 submissions that met all of the criteria for copyright, permissions, etc. The applicants included both undergraduate and graduate students. The Committee selected "Cardiovascular Physiology for Grandma" by Seth Fairfax, Luise King, Jacqui Crissey, Douglas Oberlin and Leryn Boyle at Univ. of Missouri, Columbia as the First Place winner and the Viewer's Choice award went to "Exercise Physiology-Fisiologia del Ejercicio" by Facundo Mendes Garrido Abregú, Daiana Suarez di Salvo, and Sofia Aguirre at Univ. de Buenos Aires. The students who created the Exercise Physiology video used Facebook to widely promote their video, and they had nearly 6,000 views by the contest end at EB.

Excellence in Professional Student (MD or DO) Research Travel Award

The Professional Student Research Travel Award Program annually will support up to 10 MD or DO students who are first authors on abstracts to attend EB and present their research. Faculty sponsors/advisors must be active members of the APS in good standing. These travel awards provide up to \$1,800 reimbursement of travel and registration to the student. Funding for the program is provided by the APS. Awardees will be selected by the Committee with Council approval.

The travel award is listed on the APS Awards site. Announcements about the new award have gone out in the all-APS emails, to chairs of departments of physiology, any members in medical school departments, trainee and minority listservs, various APS Facebook pages and Twitter feeds, and will be in the August, October, and December issues of *The Physiologist*.

It is hoped that early engagement not only in research projects but with the APS community will encourage MD/DO's to continue their involvement in both research and the Society. It should also build their appreciation for the

importance of basic science training in medical school. The Committee will track application numbers and awards but will plan to survey awardees periodically (four-five years) to determine whether they have continued to engage in research, publish papers, attend meetings, etc.

- Council accepted the report of the Career Opportunities in Physiology Committee.

Committee on Committees



Alan Sved, Chair

The Committee on Committees (CoC) is composed of a representative appointed by each of the 12 APS Section Steering Committees plus two Councillors who serve as Chair and In-coming Chair. Its primary duty is to nominate individuals to serve on APS standing committees and on outside bodies where the APS is represented. The CoC members try to identify and promote members of their section who might serve on committees, but also to set aside section affiliations to work together to nominate

the best-qualified individuals to serve the society, keeping in mind the desire to promote diversity and the involvement of younger members in the committee structure.

Characteristics of the 2012 Applicant Pool

The CoC was pleased with the pool of applications for committee vacancies this year. This year 159 applications (Table 1A) were submitted (this includes member positions, chairs, and trainee/student positions). Some of these members submitted applications to more than one committee (Table 1B). Table 1C shows the applicant pool by section affiliation by committee. Tables 2A and 2B show the characteristics of the applicant pool and new appointees.

Results From CoC and Council Meetings

The CoC initially had 41 positions to fill. The CoC submitted suggestions to Council for the position of Chair of the Education Committee, however, this position is selected by Council. The CoC also added one new position to the Science Policy Committee.

The CoC charge, as discussed above, is to identify the best individuals to fill committee vacancies, regardless of section affiliation. All other things being equal, the Committee seeks to instill diversity in the committee structure based on section affiliation, geography, gender, and seniority.

Tables 3A and 3B shows the composition of the committees in terms of representation by section affiliation, members that are under the age of 45, women, living outside of the US, employed in Industry, and trainees.

Planning for 2014

The CoC hopes that many APS members will consider serving the Society as a member of one of its standing com-

Table 1A: Total Number of Applicants

ACE	21
Awards	10
Careers	16
Communications	3
Conference	6
Daggs	0
Education	28
Finance	2
International	31
Membership	11
Perkins	1
Porter	5
Publications	2
Science Policy	5
Senior Phys.	0
Women	18
TOTALS	159**

**This includes candidates who applied for more than one committee.

Table 1B: Total number of UNIQUE Applicants by Section

CV	25
Cell	10
CNS	7
Comparative	5
EEP	12
Endocrinology	2
GI&L	5
NCAR	10
Renal	15
Respiration	9
Teaching	6
WEH	20
None	2
TOTAL	128

APS Standing Committees Number of Positions (including new positions; does not include alternate positions)

Committee	Number of Positions Available
Animal Care & Experimentation	Chair, 3 members, 1 trainee
Awards	1 member
Career Opportunities in Physiology	Chair, 3 members
Communications	Chair, 2 members
Conference	1 member
Education	4 members (chair is selected by Council)
Finance	2 members
International	3 members, 1 trainee
Membership	5 members, 1 trainee (postdoc), 1 young investigator
Porter Physiology Development	2 members
Publications	1 member
Science Policy	1 member, 1 new position
Senior Physiologists	Chair, 1 member (both reappointed)
Women in Physiology	3 members
Totals	41 Total positions: 4 Chairs, 32 members, 1 postdoc, 2 trainees, 1 young investigator

Table 1C: Total Number of Applicants by Section (Based on 159 applications)

Section	CV	Cell	CNS	Comp.	Endo.	EEP	GI&L	NCAR	Renal	Resp.	Teach.	WEH	None	Total
ACE	6	2	2	2	0	0	0	3	2	2	0	2	0	21
Awards	3	0	1	0	0	1	0	1	1	1	0	2	0	10
Careers	5	1	1	0	0	3	0	2	0	0	1	3	0	16
Communications	0	0	0	0	0	1	0	0	0	0	0	2	0	3
Conference	2	0	0	0	0	1	0	0	1	2	0	0	0	6
Daggs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education	5	0	2	2	1	4	1	4	1	1	2	4	1	28
Finance	0	0	0	0	0	0	0	0	2	0	0	0	0	2
International	3	3	0	2	0	2	1	0	7	2	2	8	1	31
Membership	3	0	1	0	0	1	1	1	0	0	0	4	0	11
Perkins	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Porter	1	1	0	0	0	0	0	0	1	0	1	1	0	5
Publications	0	0	0	0	0	0	1	0	0	1	0	0	0	2
Science Policy	1	1	0	0	0	1	0	1	0	0	0	1	0	5
Senior Phys.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Women	4	1	2	0	1	2	1	2	1	2	1	1	0	18
TOTALS	33	10	9	6	2	16	5	14	16	11	7	28	2	159

**Table 2A. Section Affiliation of Applicant Pool and New Appointees
(Based on 128 UNIQUE applications, does not include alternates)**

Section	2010	2011	2012	2013 New Appointees	All APS Members**
Cardiovascular	29 (20%)	38 (21%)	25 (19.5%)	5 (12.2%)	22%
Cell & Molecular	8 (6%)	18 (9.8%)	10 (7.8%)	3 (7.3%)	13%
Central Nervous System	12 (8%)	2 (1%)	7 (5.5%)	5 (12.2%)	9%
Comparative	5 (3.4%)	0 (0%)	5 (3.9%)	2 (4.9%)	4%
Endocrine & Metabolism	2 (1.3%)	2 (1%)	2 (1.6%)	2 (4.9%)	8%
EEP	5 (3.4%)	13 (7%)	12 (9.4%)	2 (4.9%)	9%
Gastrointestinal & Liver	8 (5.5%)	15 (8.1%)	5 (3.9%)	3 (7.3%)	6%
NCAR	15 (10.3%)	22 (12%)	10 (7.8%)	4 (9.8%)	6%
Renal	13 (8.9%)	28 (15.2%)	15 (11.7%)	2 (4.9%)	7%
Respiration	14 (9.6%)	6 (3.3%)	9 (7.0%)	5 (12.2%)	8%
Teaching	7 (4.8%)	4 (2.2%)	6 (4.7%)	4 (9.8%)	3%
WEH	27 (18.6%)	36 (19.6%)	20 (15.6%)	3 (7.3%)	2%
None			2 (1.6%)	0	2%
TOTAL	145	184	128	41	11,216

**Does not include honorary or affiliate members.

**Table 2B: Other Characteristics of the Applicant Pool and New Appointees
(Based on 128 UNIQUE applications, does not include alternates)**

Characteristic	2011	2012	New Appointees	All APS Members
Under age 45	28 (15.2%)	79 (61.7%)	21 (16.4%)	41%
*Women	28 (15.2%)	50 (39.0%)	19 (14.8%)	27%
Reside outside of US	2 (1 %)	17 (13.3 %)	6 (4.7 %)	26%
In Industry	2 (1%)	4 (3.1%)	2 (1.6%)	2%
**Student	5 (2.7%)	14 (11%)	0	15%

*Not all members indicate gender.

**This number refers to student members only (undergraduate and graduate, not postdocs).

**Table 3A: Section Affiliation of 2013 APS Standing Committee Members
(Does not include Chapter Advisory Committee, Committee on Committees, Joint Program Committee, Physiologists in Industry Committee, Section Advisory Committee, and Trainee Advisory Committee)**

Section	2011	2012	2013	All APS Members**
Cardiovascular	28 (18.1%)	22 (14.1%)	23 (15.2%)	22%
Cell & Metabolism	14 (9%)	12 (7.7%)	11 (7.3%)	13%
Central Nervous System	13 (8.4%)	6 (3.8%)	9 (6.0%)	9%
Comparative	7 (4.5%)	7 (4.5%)	5 (3.3%)	4%
Endocrine & Metabolism	7 (4.5%)	6 (3.8%)	5 (3.3%)	8%
EEP	9 (5.8%)	10 (6.4%)	9 (6.0%)	9%
Gastrointestinal & Liver	9 (5.8%)	15 (9.6%)	13 (8.6%)	6%
NCAR	12 (7.7)	15 (9.6%)	17 (11.3%)	6%
Renal	18 (11.6%)	17 (10.9%)	14 (9.3%)	7%
Respiration	10 (6.4%)	12 (7.7%)	12 (8.0%)	8%
Teaching	9 (5.8%)	10 (6.4%)	10 (6.6%)	3%
WEH	18 (11.6%)	23 (14.8%)	23 (15.2%)	2%
None				2%
TOTAL	154	155	151	11,216**

**Does not include honorary or affiliate members.

Table 3B: Other Characteristics of 2013 APS Standing Committee Members (Does not include Chapter Advisory Committee, Committee on Committees, Joint Program Committee, Physiologists in Industry Committee, Section Advisory Committee, and Trainee Advisory Committee)

	2011	2012	2013	All APS Members
Under age 45	69 (44.8%)	45 (29%)	72 (48%)	41%
*Women	66 (42.8%)	75 (48.3%)	73 (48%)	27%
Reside outside of US	8 (5.1%)	8 (5.1%)	9 (6.0%)	26%
Industry	0	2 (1/2%)	3 (2.0%)	2%
**Students	8 (5.1%)	7 (4.5%)	6 (4.0%)	15%

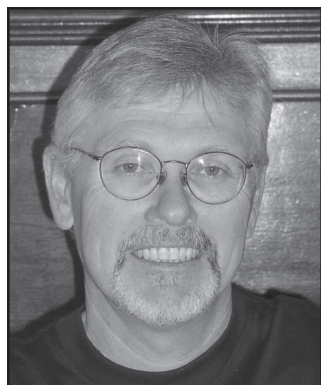
*Not all members indicate gender.

**This number refers to student members only (undergraduate and graduate, not postdocs).

mittees and we hope that Section Steering Committees will play an active role in encouraging their section members to apply. Applications can be submitted via the APS website, and are due along with an Endorsement form by January 17, 2013. Those candidates who are unsuccessful at securing a committee appointment initially are encouraged to re-submit their credentials for consideration for the same or another committee in the next cycle and those placed as alternates will be re-considered without re-nomination.

- Council accepted the report of the Committee on Committees Committee.

Communications



James Hicks, Chair

New Science Presented at EB 2012 Meeting

In April we profiled six presentations that were offered as part of our 125th anniversary meeting: Changes in Brain's Blood Flow Could Cause 'Brain Freeze'; Mental Stress May Be Harder on Women's Hearts; Obstructive Sleep Apnea's Damage Evident After One Month; Omega-3 Fatty Acids Don't Improve Heart's Ability to Relax and Efficiently Refill With Blood; New Mouthpiece Found to Reduce Stress Levels After

Strenuous Exercise and Regular Exercise Could Reduce Complications of Sickle Cell Trait. Several of the studies were reported on by major media outlets such as ABC News, CNN and the *Washington Post*.

Topics from Our Journals and Summer Meeting

Since then we have issued six releases on topics from our journals and as part of the presentations being made at our summer conference. The releases, posted on the APS press page (www.the-aps.org/press), are entitled, Could the Ways in Which Animals Regenerate Hair and Feathers Lead to Clues for Restoring Human Fingers and Toes? ; A Century of Learning About the Physiological Demands of Antarctica; Autonomic Regulation of Cardiovascular Function in Health and Disease; Latest Program Sponsored by the American Physiological Society Focuses on

Autonomic Regulation of Cardiovascular Function in Health and Disease; Research Highlights from Autonomic Regulation of Cardiovascular Function in Health and Disease.

Collaboration Between APS and The Physiological Society

On June 29, 2012 we announced the partnership agreement between the APS and The Physiological Society under which they will publish a new open access journal which is slated to be launched early next year. You can read more about the program at <http://www.the-aps.org/mm/hp/Audiences/Public-Press/For-the-Press/releases/12/27.html>.

Second Anniversary for Our Blog, Life Lines

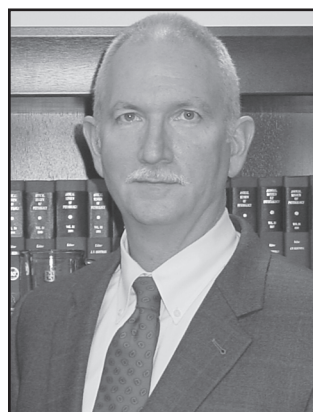
August marks the two-year anniversary of the APS blog LifeLines which provides explanations about comparative physiology for the non-scientist. Recent blogs have discussed Chimpanzees and Congestive Heart Failure, Link Between Environment Contaminants and Multiple Symptom Atrophy (aka: Atypical Parkinson's) and Empathetic Rats? You can read more about this branch of science on Dr. Dolittle's blog at <http://scienceblogs.com/lifelines/>.

Follow Us on Facebook and Twitter

We hope you will follow updates about the Society at the APS Facebook page at <https://www.facebook.com/AmericanPhysiologicalSociety> and on Twitter at @Phyzioclick.

- Council accepted the report of the Communications Committee.

Conference



Gerald Meininger, Chair

Summary of Committee Activities

A Committee teleconference was held in August 11 as an introduction for new committee members and to build an agenda for the committee face to face meeting that was held on September 11 to consider committee goals and activities. There was an extensive and productive discussion of a number of important issues related to the conference program. The agenda items dis-

cussed included committee operating procedures, barriers to conference organization (time, money and lack of knowledge of process on part of potential organizers), conference types of interest to the committee, and strategic planning for the future. Featured highly in these discussions were issues related to how actively and aggressively should conferences be solicited and topical focus and content of conferences. Themes that emerged were to try to build on successful recurring meetings, develop a partnering strategy with existing small conference programs or societies (international included) where APS is an active collaborator in the planning process and not just a bank roll, inclusion of a translational conference or that a translational element be built into sponsored conference programs.

A strategic planning task force was organized by Council to consider areas of importance to APS. One of these areas was "Enhance opportunities for scientific interaction and exchange" In this task force issues related to the conference program were again actively discussed. Points of relevance for this report included discussion that highlighted the needs to:

- Development of a successful strategy for making small APS meetings both a financial and scientific success.
- Development of a plan for hosting an annual meeting dedicated to translational research.
- Development of a strategy to utilize the chapter program as a way to strengthen APS meetings overall. Again emphasizing the emerging importance of partnering and collaborative planning.
- Develop strategies to use new media to broaden the reach of APS meetings and conferences.

Conferences held in 2011 include:

- 7th International Symposium on Aldosterone and the ENaC/Degenerin Family of Ion Channels: Molecular Mechanisms and Pathophysiology, September 18-22, 2011, Asilomar Conference Grounds, Pacific Grove, CA; and
- Physiology of Cardiovascular Disease: Gender Disparities, October 12-14, 2011, Univ. of Mississippi;

Conferences held in 2012 include:

- Advances in Skeletal Muscle Biology in Health and Disease, February 20-24, 2012, Univ. of Florida, Gainesville;
- APS Conference on Autonomic Regulation of Cardiovascular Function in Health and Disease, July 7-10, 2012, Omaha, NE; and
- APS Intersociety Meeting: Integrative Biology of Exercise, October 10-13, 2012, Westminster, CO.

- Council accepted the report of the Conference Committee.

Education



Thomas A. Pressley, Chair

Response to Texas Tuning Of Biology

Earlier this year, a subset of biology instructors in Texas received a survey from the Texas Higher Education Coordinating Board soliciting feedback on a draft document describing expected levels of competency achievement in biology, Tuning of Biology. Although aspects of the draft were clearly drawn from the Vision and Change in Undergraduate Biology Education report from the NSF and the AAAS, there

were significant weaknesses and omissions of key physiological concepts in the Tuning document.

Education Committee members saw the Tuning draft as an opportunity to advocate for an increased recognition of physiology by a state with a major influence on curriculum development in the US. Accordingly, with approval from the Council Executive Committee, an Education sub-committee, together with Dee Silverthorn (Univ. of Texas), prepared a formal letter on behalf of the Society that details these concerns for transmission to the Texas Higher Education Coordinating Board.

Professional Skills Courses

Live Short Course

In January 2012, APS offered the live PST Course on Writing and Reviewing for Scientific Journals. Thirty students participated in the course, and APS members, Kim Barrett, Heddwyn Brooks, Charles Lang, Cindy Meininger, Peter Wagner, Mike Wyss, and Irv Zucker served as instructors. This course is targeted toward their first first-author manuscript. In the course, students learn the essentials of manuscript writing and reviewing while gaining valuable opportunities for networking and collaboration. The course includes an online component (pre-workshop readings, exercises, and reflections) and a weekend live workshop that includes nine plenary sessions that combine lecture, group activities, and instructor panels. The course also utilizes small group discussions led by an experienced, well-published researcher in the students' field.

Online Courses:

The online courses are scheduled throughout the year and, using interactive technology through Blackboard.com and Skype, offer a convenient and effective mechanism to offer professional development to more students at a reasonable cost. The APS offers a number of online courses each year and the number of students taking the courses is increasing as their availability and quality becomes more known. During the 2011-2012 academic year, 43 students participated in the online courses, and APS members, Carmen Hinojosa-Laborde, Mark Knuepfer, Jodie Krontiris-Litowitz, Thomas Pressley, Mike Ryan, Mesia Steed, Johana Vallejo-Elias, and Mike Wyss served as instructors.

New Course Development:

The Education Office and Publications Department, in collaboration with the Society for Biological Engineers and Biomedical Engineering Society, have submitted a proposal to NSF to support the development of professional skills training materials on publication ethics.

Physiology Graduate Program Directors

Plans are underway for the 2013 meeting. Both APS staff and the Education Committee chair are receiving updates from the planning committee. The Univ. of North Texas Health Sciences Center in Fort Worth has been selected as the host for the 2013 meeting.

Medical Physiology Course Directors Meeting

At EB 2012, approximately 15 medical physiology course directors attended the meeting. Education Committee member Tom Ecay led participants in a discussion about endocrinology content and how best to teach it. There is considerable interest among the group members in exploring the possibility of having an “NDOGS-type” meeting of medical physiology course directors.

Medical Physiology Learning Objectives (MPLO) Project

In conjunction with the ACDP and APS sections, the learning objectives were updated and republished in 2012. They are available in PDF format at the APS website. APS Archive resources are coded and searchable by each MPLO; changes in objectives for the 2012 edition were also created in the Archive and related teaching resources were recoded appropriately.

ADInstrumentsMacknight Progressive Educator Award

The Education Committee received five applications for 2012. Application review criteria included:

- Greatest potential for incorporating innovative teaching techniques
- Effectively utilizing technology resources
- Engaging undergraduate students in physiology

The Committee unanimously recommended APS member Terrence Sweeney of the Univ. of Scranton in Scranton, PA, as the 2012 awardee. His application included a description of a “mechanical model of the cardiovascular system for pedagogical use” that he has developed for use with undergraduate students. Sweeney attended EB 2012 to receive his award. In addition, last year’s awardee, Gregor Belusic, Department of Biology, Biotechnical Faculty, Ljubljana, Slovenia, was able to attend EB this year and meet with colleagues from both the Education Committee and Teaching Section.

APS Refresher Courses at EB

The 2012 Refresher Course focused on endocrinology with an emphasis on diabetes. It was organized by Clintoria Richards-Williams and Michael Ryan. Consistent with previous years, the sessions were well-attended. The session presentations are being prepared for the web and Advances publication. The EB 2013 Refresher Course will focus on immunology and is being organized by Michael Ryan and Kim Henige.

Undergraduate Research at EB

In 2011, 72 applications were received and 26 Undergraduate Abstract Awardees were selected. From these awardees, a subcommittee selected 11 Undergraduate Research Awardees. In addition to support from the APS, the David S. Bruce Award program has received generous contributions from Dr. Isis, the APS Central Nervous System Section, and individual APS members Marlowe W. Eldridge, Thomas F. Hopkins, Ida J. Llewellyn-Smith, and Thomas Pressley.

Frontiers in Physiology Professional Development Program for Teachers

For 2011-2012, the APS returned to the comprehensive Frontiers in Physiology Summer Research Teacher Fellowship, including the laboratory experience but not the week-long Science Teaching Forum workshop. The comparative study of the online and comprehensive program showed that the pedagogy skills learned at the Science Teaching Forum could be effectively taught online. However, teachers who did not have the research experience did not gain the in depth knowledge of the processes of basic research as did teachers who only did an online unit about basic and clinical research. The project is sponsored by the APS, the individual Society members who serve as research mentors, an NCRR SEPA grant, and the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) at the NIH. The NIDDK funding supports the involvement of underrepresented minority teachers and teachers working primarily with minority students underrepresented in science. From a pool of 40 applications, the Education Committee selected 17 teacher fellows to participate in this program.

Physiology Understanding Week (PhUn Week)

In 2011, more than 10,000 students were reached at 64 event sites across the nation and Puerto Rico. This effort involved 54 APS member Lead Coordinators and a total of 274 scientists presenting and partnering with 327 classroom teachers and educators. The program exceeded its 2011 goal with outreach to 10,275 students. Distribution by grades included nearly 30% in high school classrooms, 40% in the primary and elementary classrooms, and 30% in middle school classrooms. The number of physiologists (274) and teachers (327) exceeded projected goals, while the number of event sites (65) was just short of the 2011 goal of 70.

USA Science and Engineering Festival (USASEF)

The 2012 Intel ISEF was held in Pittsburgh, PA, May 13-18. More than 1,500 students from about 70 countries, regions, and territories presented their research. During the two evenings of awards ceremonies, more than \$3 million in scholarships, cash prizes, and awards were distributed in categories ranging from behavioral science to engineering and medicine.

This year’s APS judging team leader was Education Committee member Christopher Woodman assisted by Committee member Catherine Clark. They presented the First Place Award of \$1,500 to Aprotim Cory Bhowmik of Parkview High School, Lilburn, GA, for the study “Arterial Hemodynamics in Atherosclerosis Patients, a Mathematical Model.” The Second Place Award of \$1,000 went to Peiyan Duan of No. 2 Secondary School Attached to East China Normal Univ., Shanghai, China, for an “Exploration of

Antidiabetic Compound in Foxglove and Its Molecular Mechanism of Action.” A Third Place Award of \$500 went to Christina Diane Collins of Caddo Parish Magnet High School, Shreveport, LA, for “The Evaluation of Small Molecule Inhibitors of PKM2, a Downstream Product of mTOR, in Neuroblastoma.” In recognition of an innovative and independent project performed without significant access to research or industrial resources, the APS Exceptional Science Award of \$500 was presented to Christina Ren of Monte Vista High School, Danville, CA, for her study, “The Effect of Deer Antler on the Proliferation of Endothelial Cells in vitro.”

APS Archive of Teaching Resources

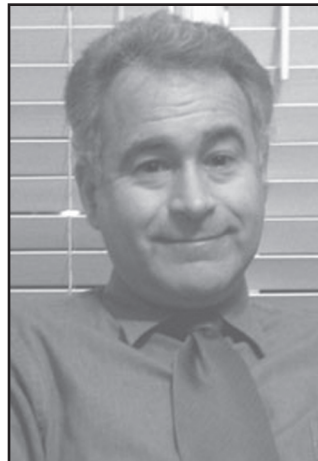
The Archive added 1,764 new items in the past year and now includes more than 4,800 peer reviewed teaching resources. The Archive now includes 39 collections of items that can be searched and shared. More than 6,300 users have registered but many more use the site (registration is not required). In 2012, the Archive was redesigned with a new look and exciting new tools for educators that will help us change the Archive from a place to “come and get” resources to a place to not only find good teaching resources, but to participate in a community of educators, sharing ideas and practices with colleagues around the world. Registered users are asked to indicate the courses they teach; when they log on, they are offered a list of the resources most highly rated by colleagues who teach the same course. They are encouraged to rate and review resources they have downloaded/accessed through the Archive. They also are encouraged to share resources through social media (Facebook, etc.) and, with a one-click generator, through their class or faculty web page. Many Archive users create a folder that contains all of their submissions to the Archive along with articles in Physiology, Advances, etc. and embed it on their faculty page.

Archive Scholars Program

With support from NSF, the Archive also is adding a professional development program for K-12 and undergraduate educators. The Archive Scholars program will be an entirely online fellowship focused on finding and using digital resources to enhance science teaching and learning.

- Council accepted the report of the Education Committee.
- Council approved the APS Policy Statement on K-12 Education on behalf of the Education, Career Opportunities in Physiology, Porter Physiology Development, Trainee Advisory, and Women in Physiology Committees

Finance



Jeff M. Sands, Chair

During the spring meeting of Council, the Finance Committee reported that the Society’s financial condition remains relatively strong through sound management and investment practices.

Current and Pending Grants

The current grant activity totals \$1.8 million and pending grant requests total \$3.5 million.

Managed Accounts

It was reported that, at December 31, 2011, two fixed income accounts was +.99% for the year, which was slightly less than the Society’s composite benchmark index of +2.12%.

Three Year Financial Forecast

The forecast projects a surplus of \$500,000, \$300,000, and \$100,000 in 2013, 2014, and 2015 respectively and a deficit of \$56,000 in 2014. The projection shows revenue growing at annual rates of 0.5% and expenses growing at a rate of 2%, from 2012 to 2015. By comparison, the March 2011 projection showed revenue and expenses growing at rates of 0.2% and 0.4% respectively and projected surpluses of \$83,000, and \$37,000, for the years 2012 and 2013, respectively and a deficit of \$56,000 in 2014.

2011 Financial Results

Revenue, including \$1.26 million from reserves, was \$17.8 million and expenses over the same period were \$17.3 million, resulting in a surplus for the year of \$558,000. Note that the 2011 budget called for a projected surplus of \$80,000. The Society was approximately \$478,000 over budget at year-end. Revenue for the year was \$250,000 under budget, and expenses were \$728,000 under budget.

2012 Budget

Increases in revenue of \$322,000 and decreases in expenses of \$60,000 resulted in a small increase in the 2012 projected budget surplus from \$311,000 to \$693,000. Budgeted revenue was decreased from \$18.64 million to \$18.32 million, and budgeted expenses were decreased from \$18.00 million to \$17.94 million.

2011 Audit

The Committee reported that the Society’s financial statements were audited in accordance with general accepted auditing standards. The Society’s audit firm, Rogers & Company rendered an unqualified opinion that the Society’s statements presented fairly, in all material respects, the financial position of the Society at December 31, 2011 and 2010.

- Council accepted the report of the Finance Committee.

APS Statement of Activities for the year ended December 31, 2011

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Operating revenue:		-		
Subscriptions	\$ 10,138,880	-	\$ -	\$ 10,138,880
Author charges	3,219,020	-	-	3,219,020
Membership dues	934,409	-	-	934,409
Grants and contracts	605,310	-	-	605,310
Conferences and meetings	819,955	-	-	819,955
Contributions	176,030	287,056	-	463,086
Advertising	269,736	-	-	269,736
Other income	363,546	-	-	363,546
Released from restrictions	260,942	<u>(260,942)</u>	-	<u>-</u>
Total Operating Revenue	<u>16,787,828</u>	<u>26,114</u>	<u>-</u>	<u>16,813,942</u>
			-	
Operating expenses:				
Publications	11,615,185	-	-	11,615,185
Society general	3,242,236	-	-	3,242,236
Society programs	997,236	-	-	997,236
Education	1,388,044	-	-	1,388,044
Marketing	<u>403,474</u>	<u>-</u>	<u>-</u>	<u>403,474</u>
Total Operating Expenses	<u>17,646,175</u>	<u>-</u>	<u>-</u>	<u>17,646,175</u>
			-	
Operating change in net assets	(858,347)	(26,114)	-	(832,233)
Net realized gain on investments	1,321,657	-	-	1,321,657
Net unrealized loss on investments	(1,900,477)	-	-	(1,900,477)
Interest and dividends	1,025,821	220	-	1,026,041
Investment management fees	<u>(455,021)</u>	<u>-</u>	<u>-</u>	<u>(455,021)</u>
Total Investment loss	(8,020)	<u>220</u>	-	(7,800)
			-	
Change in net assets	<u>(866,367)</u>	<u>26,334</u>	-	(840,033)
Net assets, beginning of year	<u>42,554,438</u>	<u>725,301</u>	<u>12,500</u>	<u>43,292,239</u>
Net assets, end of year	\$ 41,688,071	\$ 751,635	\$ 12,500	\$ 42,452,206
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	-			

APS Statement of Financial Position as of December 31, 2011

ASSETS

Cash and cash equivalents	\$ 600,230
Investments	46,181,826
Accounts receivable, net	1,196,892
Pledges receivable, net	298,382
Accrued interest receivable	127,868
Advances to section editors	254,592
Prepaid Expenses	170,600
Inventory	46,038
Property and equipment, net	1,516,009
Total assets	\$50,392,437

LIABILITIES AND NET ASSETS

Accounts payable and accrued expenses	\$ 1,879,669
Deferred subscriptions	5,471,195
Deferred dues and other	589,367
Total liabilities	7,940,231
Net Assets:	
Unrestricted	41,688,071
Temporarily restricted	751,635
Permanently restricted	12,500
Total net assets	42,452,206
Total liabilities and net assets	\$50,392,437

International Physiology



Bryan Mackenzie, Chair

APS members hail from 88 countries from over six continents and represent a large and important constituency within the Society. The International Physiology Committee (IPC) seeks to assist APS by identifying and implementing ways in which APS can best serve its international members, achieve globally its goals of fostering education, scientific research and dissemination of information in the physiological sciences, and raise its global stature.

Demography of International Members

International (non-US) physiologists comprise 26% of the Society's total membership and are growing: international physiologists comprised 32% of the new regular members joining in 2009–10, 26% in 2010–11, and 30% in 2011–12. 27% of new student members in 2011–12 were international. Canada (562), Japan (350), United Kingdom (217), Australia (161), and Brazil (158) account for the largest numbers of international members, and this trend continues. Relative to the size of their populations, disproportionately few members come from India (58) and China (56).

International Early-Career Physiologist (IECP) Travel Awards

On the recommendation of the IPC, APS Council established the International Early-Career Physiologist (IECP) Travel Awards in 2008 to enable students, trainees and junior faculty from outside of the US to attend and participate in Experimental Biology (EB). Council approved funding for up to 10 awards annually, each of \$500. In 2012, APS received nearly 100 applications. In addition to the 10 awards approved by Council, fundraising efforts by the APS for its 125th anniversary celebrations at EB2012 meant that APS was able to make a total of 35 awards of \$1,000 each.

The IPC considers this program an exciting means of encouraging the very best and most promising young international physiologists to EB to share their research, and a means by which The Society can engender the interest of international students, trainees, and junior faculty in joining APS. The IPC noted significant increase in both the caliber of applicants and the quality of abstracts submitted to the IECP travel award program for 2012.

Latin-American Initiative

Established in 2000, the APS Latin-American Initiative (LAI) provides financial support for symposia, conferences, courses/workshops and other events held in Latin America, with the aim of strengthening ties between APS and sister societies in Latin America, and fostering interactions between APS members and physiologists working in Latin America. Up to four awards of up to \$5,000 are funded annually. APS received four applications for the 2012 LAI. The IPC reviewed these applications and recommended for funding three awards of \$5,000 each.

Attracting and Retaining International Members in APS

The IPC will collaborate with other committees and with Council to find and implement ways of attracting new international members, increasing retention, and encouraging international student members to convert to regular members upon graduation.

Improving Communication of International Programs

Two thirds of respondents to a 2010 international members survey were unaware of either the IECP Travel Award program or the Latin-American Initiative. To improve communication of these programs and other matters of particular interest to international members, the IPC has developed content for a page for International Physiologists that will be posted on the APS website.

- Council accepted the report of the International Physiology Committee.
- Council approved increasing the number of International Early Career Travel Awards from 10 awards to 12 awards to encourage the participation of international early-career physiologist in Experimental Biology 2013.

Joint Program Committee



Ronald Lynch, Chair

Experimental Biology 2012

The 2012 EB Meeting was held in San Diego, April 21-25. The scientific and poster sessions were well-attended and overall enthusiasm for the meeting remains high. The other participating societies included: ASPET (pharmacology), ASN (nutrition), ASBMB (biochemistry), ASIP (pathology) & AAA (anatomy). The APS hosted five guest societies: The Microcirculatory Society (MCS), the Biomedical Engineering Society (BMES), the American Federation for Medical Research

(AFMR), the Society for Experimental Biology and Medicine (SEBM), and The Physiology Society (UK).

The meeting opened with several unique sessions on Saturday including the traditional Refresher Course—Endocrinology: Diabetic Complications. APS sponsored two unopposed Techniques and Technology in Physiology Workshops on Saturday entitled: Overcoming the Fear of Making Your Own Transgenic and Knockout Mice and Toolkit for Genomic Biomarker Discovery by Physiologists. Also on Saturday, The Walter B. Cannon Memorial Award Lecture was presented by L. Gabriel Navar, Tulane Univ., and was followed by a party on the San Diego North Embarcadero celebrating the 125th Anniversary of the APS.

The Henry Pickering Bowditch Memorial Award Lecture was presented by Mingyu Liang, Medical College of Wisconsin. During the week, 12 section-sponsored Distinguished Lectures were presented. APS also sponsored four Cross-Sectional Symposia: Essential Insights into Protein Interactions in Epithelia; Recent Advances in Physiology and Disease: The Role of the Circadian Clock in Neural, Cardiovascular and Metabolic Function; Hypoxia Inducible Factors (HIFs) in Health and Disease; and Brain Insulin: The Forgotten Metabolic Partner of Leptin?

The Physiology InFocus program was organized by APS President Joey Granger and focused on the theme “Physiology in Medicine.” The program consisted of three symposia and one lecture which included Physiology of Obesity, Cardiometabolic Disease and Therapeutic Weight Loss; Using Physiology to Translate Cardiac Remodeling and Heart Failure; and Hypertension and Chronic Kidney Diseases. The Nobel Prize in Physiology or Medicine Lecture was presented by Oliver Smithies, Univ. of North Carolina Chapel Hill. The Nobel lecture was followed by a closing banquet featuring a Mexican-style buffet dinner with entertainment provided by a popular band named GI Distress.

APS programmed 337 sessions in total: 195 poster sessions, 70 symposia, 46 featured topics, 18 lectures, two workshops, two tutorials, one refresher course, one awards session and two special sessions. The programming continued to be organized using the Clustering of Sectional Programs for the second year.

Clustering of Sectional Programs: Meeting Within a Meeting Concept

The 2012 meeting was the second meeting in which sections

“clustered” their programming on specific days within the meeting. The “clustering” of sessions by section provided a framework which facilitated session programming/slotting allowing more time for optimizing the scheduling of rooms (sizes) to match sessions. When possible, sectional programming was scheduled consecutively in the same room or an adjacent room to optimize flow. This strategy was deemed a great success based on anecdotal feedback to the JPS Representatives. Unlike 2011, the posters submitted to a section’s Topic Categories were not completely programmed on the days where a given section’s oral sessions were clustered, and in particular, only a limited number of sectional posters were programmed on the day that the award lecture for that section was presented.

Experimental Biology 2013

The JPC met to begin organizing EB 2013 (April 20-24, 2013) in Boston, MA. The JPC began scheduling rooms by day and time for the platform sessions, and, at the same time, tried to minimize scientific overlap. Discussion of mechanisms to enhance the attendee experience, including the goal of reducing overlap between sessions with common interest, was a primary focus of the Committee. Significant attention was given to better coordinating between sections/groups. One outcome of the meeting was to slightly revise the timing of the afternoon sessions and poster defending. The JPC also agreed to discontinue staggering the poster defending time. In addition, the defending time on the last day of the EB meeting (Wednesday) will be decreased by 30 minutes from 2 hours and 15 minutes (Sunday-Tuesday) to one hour and 45 minutes. This was deemed important to accommodate the Nobel Lecture without having overlap with the afternoon oral sessions. The number of APS posters programmed for Wednesday will be maintained lower than other days to optimize the time provided for individual poster discussion.

Two Techniques and Technology workshops will be scheduled on the first day of EB 2013: Rodent Experimentation and Bioinformatics and Modeling 101: How to Use Your Office Computer for Discovering/Simulating Physiological Networks of Your Favorite Genes. Both workshops will feature a dedicated webpage with detailed information and links to additional resources. It is anticipated that these workshops will be audio-taped and available for viewing online with after the meeting.

The Physiology InFocus program—From Animals to Human Models of Disease—will feature a series of three symposia and a Nobel Lecture:

- Lessons from New Animal Models of Cystic Fibrosis
- Animal Models of the Irritable Bowel Syndrome: Basic and Translational Implications
- Eating Disorders
- Nobel Lecture in Physiology or Medicine featuring Linda Buck, Fred Hutchinson Cancer Research Center

As is customary, the meeting will also feature sessions organized by the APS Publications, Careers in Physiology, Science Policy, Women in Physiology, Trainee Advisory, Physiologists in Industry and Education Committees.

- Council accepted the report of the Joint Program Committee.
- Council approved a motion to change the “Physiology InFocus” symposia to the “APS President’s Symposia.”

Membership



Robert W. Brock, Chair

The Committee will leverage the key priorities that emerged from the strategic planning meeting to develop and recommend new strategies on issues related to membership recruitment, retention, and engagement.

It is necessary to continue to evaluate and finalize amendments to the Committee charge so that it better reflects the direction and function of the Committee as it serves the APS. Not only should the Committee provide recommendations for member recruitment, retention and benefits, but it should also play a more active role in engaging members of the APS. This also includes consideration of establishing Committee membership guidelines.

The Committee will continue evaluating and proposing new ways to target specific membership subgroups—trainees, women and minorities, international members, and clinician-scientists. Potential avenues to pursue include engaging these groups more directly into meeting programs via symposia, a designated listserv, as well as inclusion with the governance of the individual sections/committees.

Finally, the Committee will continue to work to identify additional tangible benefits specifically for APS members.

- Council accepted the report of the Membership Committee.

Perkins



Esther E. Dupont-Versteegden, Chair

The John F. Perkins, Jr. Memorial Award for International Physiologists promotes cultural exchange and scientific collaborations by providing supplementary aid to families of foreign scientists working for a minimum of three months in the US. In this way, young scientists are able to bring their families and, thus, make full use of the cultural exchange as well as the scientific benefits associated with an international collaboration. This award is intended to support family visits to the US for postdoc-

toral fellows and junior faculty from overseas. Application for the Perkins Award must be made jointly by the host, who must be an APS member, and the visiting scientist. The recipient receives funds generally not exceeding \$5,000.

Applications for the Award are accepted in the spring and fall, with application deadlines of April 15 and October 15. Unfortunately, the committee did not receive any applications for either deadline in 2011. To try and encourage more applications, a notice of award will be published in *The Physiologist*. Also, in addition to submitting a written report about the families' activities, the recipient will be asked to submit a short report on "what receiving this award has meant to both the recipient and the host scientist." This report may also be published in *The Physiologist*.

- Council accepted the report of the Perkins Committee.

Physiologists in Industry



Kelly R. Pitts, Chair

EB2012 PIC Symposium

The symposium was held on Sunday, April 22 at 8–10 am. All scheduled speakers were able to present to an audience of close to 200 attendees. Feedback from PIC attendees, as well as others, indicates that the topic was well-received.

EB 2012 Novel Disease Awards

Committee-based scoring of this year's applicants produced a clear winner in each category: Randy F. Crossland (pre-doctoral) and Emrush Rexhaj (postdoctoral). Awards were presented at the APS Business Meeting, by a member of PIC in conjunction with Craig Plato, of Plato BioPharma, Inc.

At the PIC Business Meeting, the Committee discussed enhancements to the Novel Disease Model Award. The committee made several modifications to the award scoring to better align the scoring with the focus of the award, emphasizing both the novel approaches aspect and the emphasis on a specific disease. The Committee also discussed modifying the name of the award for clarification, but has not voted on a specific title. Finally, the Committee discussed ways to increase the impact of the award. The Committee would like to invite the postdoctoral Novel Disease Award winner to co-chair the following year's PIC symposium.

EB 2012 PIC Mixer

The 12th annual mixer was held on Sunday, April 22, 6:45–8:00 pm, at the San Diego Marriott. The mixer attracted approximately 50 individuals across all levels of training. The mixer provided a chance for several discussions with many attendees.

EB 2013 PIC Symposium

This symposium will focus on Nrf2 signaling pathways in the pathophysiology of various diseases. The session is being coordinated and chaired by Eugene Shek, and Ira Smith, both active PIC members.

- Council accepted the report of the Physiologists in Industry Committee.

Porter Physiology Development



Dexter L. Lee, Chair

The goal of the Porter Physiology Development Program is to encourage diversity among students pursuing full-time studies toward the PhD (or DSc) in the physiological sciences and to encourage their participation in the American Physiological Society. The program provides one to two-year full-time graduate fellowships. The program is open to underrepresented ethnic minority applicants who are citizens or permanent residents of the United States or its territories.

2011-2012 Porter Physiology Fellowship Program

In 2010-2011, the program provided funding for eight fellows.

2012-2013 Porter Fellowships: New and Renewal Applications

A total of 11 new and two renewal applications were submitted for the January 15 deadline and reviewed by the Committee. The stipend paid to the Porter Fellows for 2012-2013 will be \$28,300, consistent with the NIH scale.

2011-2012 Travel Awards

The Porter Committee reviewed and recommended award recipients for Minority Travel Fellowships to attend APS meetings and conferences. Four travel fellows received funding to attend the 2011 APS Conference, "Physiology of Cardiovascular Disease: Gender Disparities," from October 12-14 at the Univ. of Mississippi in Jackson. The Committee also selected 42 Travel Fellows to attend EB 2012. Former Porter Fellows and past Travel Fellows volunteered to be mentors for the younger Travel Fellows.

2012 Travel Fellows Luncheon

The Travel Fellows Luncheon was held on Wednesday at EB. The Fellows heard from keynote speaker, Dr. Richard Nakamura, Acting Director, Center for Scientific Review at the National Institutes of Health. Nakamura's speech centered on the Porter Physiology Development Committee's "Be Counted" campaign and highlighted the importance of self-identification as minority physiologists. He spoke about his personal experiences that contributed to both his impediments and successes in achieving a thriving research career. He made insightful arguments about the importance of being identified as a minority scientist and stressed the responsibility of promoting success of future minority scientists. Nakamura's talk will be available on the APS website and in the Archive of Teaching Resources.

Following Nakamura's presentation was a panel discussion on the importance of "being counted." The panel was led by Martin Frank, APS, L. Gabriel Navar, Tulane Univ. School of Medicine, and Mildred Pointer, North Carolina Central Univ. The panel speakers gave their individual perspectives on being identified as a minority scientist. Minority scientists attending the luncheon offered additional input and posed interesting issues related to spreading the burden of

training and support to non-minority scientists and of recognition for these additional activities. At the end of the Panel discussion it was suggested that there are still disproportionate barriers to the success of minority physiologists.

Annual Biomedical Research Conference for Minority Students: 2011 APS Awards

The APS exhibited at the November 2011 meeting in St. Louis, MO to promote undergraduate programs, graduate study in physiology and the APS programs for minority students. The APS was pleased to again provide \$2,500 for cash awards for the most outstanding undergraduate presentations in physiology research. APS was represented by Inimary Toby, 2011 APS K-12 Minority Outreach Fellow, and Brooke Bruthers, APS Diversity Programs Coordinator. Sixteen undergraduate students received APS-sponsored awards for the best oral and poster presentations in the physiological sciences. Students also received a complimentary one-year print subscription to the APS journal, *Physiology*, and an APS "Life, Logic, Study" shirt.

Society for the Advancement of Chicanos & Native Americans in Science - 2011 APS Exhibit

In 2011, the theme for the SACNAS annual conference was "Empowering Innovation and Synergy through Diversity." The conference took place from October 27-30, 2011 in San Jose, CA. A total of 3,653 attendees participated in the conference: 44% postdocs and professionals; 38% undergraduate students; 14% graduate students. A record-breaking 980 students presented their research at this national conference (43% in biological, agricultural, and environmental life science). There were also more than 330 exhibitors. Heidy Contreras, 2011 APS K-12 Minority Outreach Fellow, and Carmen Hinojosa-Laborde, Porter Committee Member, staffed the APS booth to promote APS minority programs, K-12 resources and materials, and Undergraduate Summer Research Fellowships, as well as other APS awards, grants and fellowships, trainee and career information, and APS membership.

"Be Counted" Campaign

It has been difficult for APS to track progress in increasing diversity among physiologists, to gauge the effectiveness of our diversity programs and to secure external funding for APS diversity programs. It also has been difficult for the various committees and programs to reach out to minority and female trainees to encourage their participation in Society and Section activities and for nominating committees to identify candidates for leadership positions from diverse racial/ethnic groups.

In response to these needs, the Porter Committee launched the "Be Counted" campaign to encourage APS members to update their membership profile to provide information on their gender and racial and ethnic groups. The goal of the campaign was to encourage all APS members to review their membership profile and update it as needed. The Committee targeted launched the campaign at EB12.

- Council accepted the report of the Porter Physiology Development Committee.
- Council approved changing the name of the Committee to the "Porter Physiology Development and Minority Affairs Committee."

Publications



Hershel Raff, Chair

Impact Factor

The 2010 Journal Impact Factors (IF) held steady for all journals. PRV, once again ranked first in the field of physiology, with an IF of 26.866 and Physiology ranked third, with an IF of 7.953.

Journal Statistics

Accepted manuscripts. Time from manuscript submission to first decision for 2011 averages 28 days compared to 25 days in 2010. The average rejection rate for all journals was 55% in 2011, the same as in 2010.

Manuscript submissions. Manuscript submissions in 2011 decreased by 3% vs. 2010 across all journals and all manuscript types, an improvement compared to the 10% decrease in 2009 vs. 2008. Other societies, including FASEB societies, have experienced a decrease in submissions.

Articles and pages published. The number of regular research articles published decreased by 6% from 3,232 in 2010 to 3,046 in 2011; published invited articles increased by 6% from 515 in 2010 to 547 in 2011. The number of manuscripts in AiPS increased 1% from 3,442 in 2010 to 3,496 in 2011. Journal pages published decreased by 2% compared to 2010. The number of published pages was 6% under the 2011 page cap.

Supplemental data. A total of 610 data supplements were published in 2011, 80 of which were video clips. This represents a 6% decrease in total data supplements, but a 60% increase in video supplements, from 2010 (vs. a 17% increase in 2010 compared to 2009). Of the non-video data supplements, approximately 15% were published in AJP-Cell and 18%, in *Journal of Neurophysiology*.

AuthorChoice. There were 34 requests for AuthorChoice in 2011 (compared to 33 in 2010), which represents less than 1% of all accepted articles during that period.

Color figures. In 2011, 4,348 color figures were published in APS journals of which 3,111 were published by APS member authors, at no charge to them, representing \$1,244,400 in revenue foregone in 2011.

'Call for Papers' in APS journals. In 2011, there were 318 submitted and 139 papers published in response to calls for papers.

PubMed Central deposits. As a result of an agreement between the APS and the NIH signed in 2008, the APS delivers articles to PubMed Central (PMC) on behalf of authors funded by NIH and other funding bodies such as the Wellcome Trust, in compliance with the policies of those funding bodies. PMC makes the full text of articles fully available 12 months after publication. In 2011, 1,706 NIH-funded and 38 Wellcome Trust-funded research articles were deposited into PMC by the APS on behalf of authors, representing 56% and less than 1%, respectively, of the total number of research articles published in 2011.

Journal of Neurophysiology

Total NRC submissions to *JN* from October 2008-October 2011 were 103, which comprises approximately 4% of total original research submissions, 96% of which come

from the *Journal of Neuroscience*. NRC submissions have higher acceptance rates compared with *JN* de novo submissions (79% vs 58%).

Journal of Neurophysiology 'preprint server' Trial.

The results of the trial prior to the time of assessment (February 2011) were: 14 unique manuscripts were submitted to *JN* that had been posted to a preprint server. Of these manuscripts, two were rejected, one was withdrawn, nine were in process *JN* and the other was in press.

Press Releases and Social Media

In 2011, 47 press releases were distributed (30 in 2010). Of these, 34% (30% in 2010) were related to APS journal findings. APS journal findings continue to be picked up by top-tier mainstream media.

Publications Ethics

The number of ethical cases arising during peer review and production has increased significantly over the past few years. The overall total number of ethical cases that originated in 2011 was 251. This total marks an increase of 117 cases (87%) vs. 2010. The largest number of cases by category was figure manipulation (192 cases) followed by duplication of data (16 cases). In first quarter 2012, there have been 77 cases identified, and, therefore, the case load continues to increase.

Book Program

Comprehensive Physiology. The first issue of *Comprehensive Physiology* was published in January 2011 and included all of the Handbook content, digitized ("Classic Content") and 25 new articles. As of February, 2012, 420 articles have been invited, of which 158 have been accepted, 31 are in review or revision and 104 have been published. The invited articles are from seven of the 13 sections, covering 12 topics; "topics" correspond to a volume of the published, print Handbook.

Comprehensive Physiology is being published as a quarterly journal, and, therefore, updates are continuous. The journal has also been evaluated for inclusion in Scopus by the Scopus Content Selection & Advisory Board, which has advised that the title will be accepted for inclusion in Scopus.

Book Monograph Series. In 2011, the APS signed an Agreement with Springer for the publication of its book series, *Methods in Physiology, Clinical Physiology, and Perspectives in Physiology* (formerly, *People and Ideas*). One title, "Mechanism of Muscular Contraction" by Jack Rall is in production at Springer. Proposals for monographs continue to be submitted to the Book Committee, and four new titles are under consideration by the Book Committee and Springer. Since the existing Book Committee was functioning as the Advisory Board to *Comprehensive Physiology*, a new Book Committee Chair, Dee Silverthorn, was appointed by Publications Chair Hershel Raff.

Ethics education grant proposal

The Publications Department, in collaboration with the Education Department, submitted an Ethics Education in Science and Engineering (EASE) grant proposal to NSF (3-yr; 400K). The proposed project will develop, field-test, and widely disseminate a set of teaching modules focused on building student skills in understanding and applying the professional standards of practice for publication ethics in science and engineering. Modules will be developed and test-

ed through a proven process involving input and participation from an expert Project Advisory Board, graduate students, Responsible Conduct of Research (RCR) course directors, and three professional societies (American Physiological Society (APS), Biomedical Engineering Society (BMES) and Society for Biological Engineering (SBE) representing broad fields in biological sciences and engineering. Modules will utilize highly effective, student-centered pedagogies, including learning cycles, structured case studies, and the application of professional standards of practice for publication ethics to students' own research. The modules will be a key component in a larger collaborative effort by APS, BMES, and SBE to create and support a Publication Ethics Community of Practice (PubEth COP). The modules and PubEth COP will be widely disseminated on an ongoing basis by the partnering societies through annual society workshops and short courses, and through promotion to RCR course directors, lab group directors, and other professional societies. All materials developed will be freely available at partnering society websites and ethics websites and will be catalogued in three National Science Digital Libraries.

Committee Issues

Open Access Journal proposal. Council approved the Publication Committee's recommendation to move forward from the proposal stage towards finalizing the publication model for a new open access journal published by the APS or in conjunction with The Physiological Society. Council subsequently approved the recommendation of the option of Wiley-Blackwell acting as the publisher of the journal on behalf of both societies. The option remains that the APS will act as the publisher for both societies.

Information requirements for animal studies reported in APS journals. The National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) and the National Academies of Science (NAS) have issued guidelines for reporting in vivo experiments in scientific publications and have requested that APS adopt their particular guidelines. The ARRIVE (NC3Rs) and ILAR (NAS) guidelines have been reviewed by the APS Animal Care and Experimentation (ACE) Committee and a subgroup of the Committee drafted a document that recommends the details to include in the description of in vivo studies reported in the Methods sections of our journals. It is intended to be posted with our journals' Information for Authors. The Publications Committee agreed to link to ARRIVE and NAS guidelines, which will include a statement that reads as follows:

"The description of animal procedures in the manuscript should be sufficient to permit readers to evaluate the quality of the data presented and to replicate the experiments if needed. Authors may want to review guidelines provided by the Institute for Laboratory Animal Research (National Academy of Sciences), Guidance for the Description of Animal Research in Scientific Publications (http://www.nap.edu/catalog.php?record_id=13241) and those of the National Centre for the Replacement, Refinement and Reduction of Animals in Research, Animals in Research: In Vivo Experiments (<http://www.nc3rs.org.uk/page.asp?id=1357>) for additional guidance to determine what items are relevant to their study."

- Council accepted the report of the Publications Committee.

Section Advisory



Ann Schreihof, Chair

The Section Advisory Committee (SAC) is composed of the elected chairs of each of the APS Section. The duties of SAC include: a) assisting the Joint Program Committee in the organization of scientific meetings; b) serving as the Society's Long-Range Planning Committee; and c) making recommendations to Council regarding the strengthening of the Sections' role in programs, publication, public affairs, and governance of the Society. Below are summarized SAC's primary activities over the past year.

Awards

Sections have a New Investigator Award, Research Recognition Awards, and a Distinguished Lecturer that are sponsored by the APS. Sections vary in the criteria for their awards (e.g., professional level of awardee, primary affiliation with section). Some sections reported having increased numbers of applications, whereas others struggled with application numbers and applicants qualified to receive awards. With sections that do not require primary affiliation for application, there was some overlap with other sections on awardees. Sections continue to meet and discuss improvements to their awards criteria. Awardees are recognized at dinners, banquets, and receptions by the sections.

Engaging members in your section operations

Sections are putting out regular newsletters to inform members of activities and solicit participation in the section. ListServ notices are also used as needed for nominations, votes, and information. Some sections maintain very active ties with an APS journal, such as CAMPS with AJP:Cell, and CV with AJP:Heart, whereas others such as CNS struggle to find a suitable journal affiliation. Some steering committees have expanded to form subcommittees for tasks such as judging awards and other steering committees have expanded by including section members on other APS committees as part of their steering committee. Interactions with members in industry have been mixed. Some have expanded their steering committees to maintain international representation. Some sections have a business meeting combined with their section gathering (banquet, luncheon, dinner) to be more inclusive to all section members. All sections appear to be actively recruiting junior members to participate.

Section finances

Some sections have been very successful in soliciting donations from industry and section members for section activities, whereas others rely on APS funds (e.g., ancillary funds for interactions with Distinguished Lecturer). Several sections have expressed a decline in funding from industry sources. The Respiration Section was successful in raising \$4,000 from members for the APS matching fund program to fund a trainee highlight event. Some sections are finding their banquets/dinners to be expensive and will increase

fundraising to maintain reasonable costs for attendees. Although the APS acknowledges donations with a letter, some sections are also discussing thanking donors in their newsletters. The CV section has established a Development Committee to promote fundraising from industry to support their banquet.

Interaction with APS and other sections

Several sections are working together to minimize overlap of common interests with regards to programming at EB. Some sections are particularly active in coordinating cross-sectional programming either with cross-sectional symposia, complementary sectional programming, or joint sponsorship of featured topics. Sections are actively soliciting nominations from section members to serve on APS committees. Some sections did not report any efforts or interest to work with other sections. SAC should discuss the importance of integrating sections to enhance member networking, scientific exchange, and engagement with the APS while maintaining their unique identity and contribution to APS.

Programming for the section

Sections all sponsor a Distinguished Lecture, symposia, and featured topics. Some sections use the second hour of their Distinguished Lecture slot to further highlight the Lecturer or trainees (e.g., NCAR). Some sections have trainee specific featured topics with trainees gaining experience co-chairing a session (CEP, CV, NCAR, WEH). Others have trainee symposia and mixers that combine science and social interactions (WEH). Some sections program strictly by predetermined topics (e.g., CNS, ENDO) whereas others compose abstract-driven sessions to highlight emerging areas of science (e.g., renal, NCAR). Some sections are looking to expand their membership and participation at EB by highlighting new themes and recruiting speakers and their trainees to attend EB (CNS). Some sections have previous award winners program a session at a future EB meeting (CEP, CNS, WEH). GIL also felt their clustering at the end of the meeting hampered cross-sectional interactions, and programming of their session against the Nobel Laureate speaker was detrimental to attendance for their section. Larger sections such as CV and RESP were not affected by clustering as their programming spanned the meeting. Some sections expressed a particular effort to maintain diversity in their programming (chairs, speakers) with regard to women, international members, and members from industry (e.g., CELL, ENDO)

Recruitment and retention of section membership and leadership roles in the APS and section

Many sections are actively recruiting junior investigator membership and involvement either via TAC reps, newsletter, ListServ, letters distributed to department and center directors, and word of mouth. Sections are actively recruiting and encouraging self nominations to APS committees. Some sections include APS committee members with their section's affiliation as part of the section's steering committee to better link sections with APS committees (CNS), whereas other sections have increased their steering committee size to increase leadership opportunities and screen for future APS service (WEH). Some sections expressed interest in getting more information about members who have not renewed their membership (Cell, CEP) to recapture

them. Some sections are reaching out to members of other societies in hopes of recruiting them to the APS (e.g. CNS, CEP, RESP). Some sections are looking to expand their international membership to the section and APS committees to recruit new members (CNS, NCAR, RESP). Other sections offer a year of free APS membership to award finalists (WEH). A few sections appear to have no stated goals for recruitment or retention

Interactions with publications representative

Some sections have a natural fit with an APS journal and a good working relationship with the journal editor (CV, Cell, CEP, EEP, ENDO, GIL, NCAR, Renal, RESP). Other sections have not had an active relationship with a particular APS journal (CNS), although the Journal of Physiology has been very receptive and interactive with the CNS section. Some journal editors participate with more than one section (AJP Reg, WEH, NCAR, CEP). The journal link is also sometimes through Associate Editors (CEP; EEP). Some sections have their Distinguished Lecturers or New Investigators publish a review or lecture in APS journals. Cell is considering a Hot Topic grouping of manuscripts in coordination with an EB symposium in AJP: Cell. The editors of JAP and AJP:Heart, AJP: Reg, AJP: Cell, and AJP: Lung have been regarded as particularly friendly to sections and promoting APS member publications. The Journal of Neurophysiology does not appear to be aligned with any particular section.

Engaging trainee, industry, and international members with steering committee

Many section steering committees have members that are members of TAC, members from industry. Some sections have also been actively recruiting international members for their steering committee and APS committees (e.g. CNS, NCAR). Most sections have trainee-oriented events such as poster sessions, data sessions, travel awards, and recognition of trainee awards at receptions, dinners, and banquets. Trainees are actively included as speakers and co-chairs of sessions at EB. Trainee involvement is widely seen as a strength of the sections. Most sections have made it a priority to recruit and involve international members on their steering committee, for committee nominations, and in the programming of their sessions.

Status of SOP statements for sections: some recent changes by sections

All sections have recently updated or are in the process of updating their bylaws. Some changes include: a) generating handbooks for steering committee positions to outline duties for future members; b) expanding steering committees with at-large members, subcommittee members, international members, and trainee members; c) revising rules for existing awards including submission dates, application materials primary affiliation requirements, and goals of awards and generating new awards; and d) rules of primary affiliation for steering committee members. All sections submit their changes to full section membership for vote.

- Council accepted the report of the Section Advisory Committee.

Science Policy



**John Charles Chatham,
Chair**

Advocacy Activities

As part of our fall meeting, 12 members of the Science Policy Committee went to Capitol Hill where they met with the staff of nine Members of Congress. These meetings included staff for two members of the Joint Committee on Deficit Reduction or “super committee” that was supposed to devise a strategy to reduce the burgeoning federal deficit. Because the super committee was unable to agree on a plan, research funding agencies now face the prospect of

across-the-board spending cuts of 8-10% or more. This “sequestration,” which means returning funds to the Treasury, is set to take effect on January 2, 2013.

In our meetings, we emphasized the importance of maintaining federal funding for research, citing the health and economic benefits that result from investing in research. Advocacy for federally funded research is particularly important in the face of current economic climate and political challenges. Congressional staff were generally supportive of funding at the National Institutes of Health, National Science Foundation, VA and NASA, but many cited efforts to rein in federal spending as an impediment to budget increases.

In the spring, APS President Sue Barman, FASEB Board Member JR Haywood, Past President Gary Sieck and I joined other members of the leadership of FASEB and other member Societies for another round of Capitol Hill visits. Again we emphasized the importance of federal funding for research, and the potential harm to the research enterprise if budgets are cut by 8-10% through sequestration.

In late February of this year, an email alert went to all APS members in the United States asking them to contact their Members of Congress in support of funding for the National Institutes of Health. During a one-month period, some 762 APS members responded—about 12.6% of US members. This produced a total of 2,286 email messages to Congress: 766 to Representatives and 1,520 to Senators.

The SPC will continue efforts to encourage support for research funding. Members of the committee are working on a pilot project that involves making visits to their Members of Congress in their district offices.

To maximize our effectiveness by collaborating with other organizations, the APS participates in these advocacy coalitions:

- Ad Hoc Group For Medical Research. APS supports the Ad Hoc Group, which is recommending \$32 billion for NIH in FY 2013.
- Coalition for Science Funding. APS supports the CNSF recommendations for the National Science Foundation.
- Friends of VA. APS supports the Friends of VA’s recommendations for VA medical and prosthetic research.
- Coalition for Health Funding.

Enhancing communication with the APS Sections

ACE Committee Chair Bill Yates and I recently asked the APS Section chairs to identify a representative to serve as a

liaison between the SPC and ACE committees and the Sections. This individual will receive the “Science Policy News,” a monthly electronic newsletter from the Office of Science Policy that focuses on policy issues of importance to physiologists. The liaisons are being asked to forward items deemed relevant to the members of the section, thus providing a customized flow of information. The first edition of the Science Policy News was sent in June.

Communicating with funding agencies

On October 19, 2011, APS President Joey Granger, President-elect Sue Barman, Past President Peter Wagner and I met with leadership at NHLBI, NIGMS, CSR and the Division of Program Coordination, Planning and Strategic Initiatives. We invited the NIH officials with whom we met to speak at a special session at EB 2012 where they highlighted programs and policies of interest to our members. They have also contributed articles based on their presentations for publication in The Physiologist. These articles will be published in the August and October 2012 issues of The Physiologist.

As part of ongoing efforts to establish closer communication with the NIH leadership, we invited NIH Director of Extramural Research Sally Rockey to our fall SP Committee meeting. Her remarks focused on four main topics:

- Coping with limited resources at the NIH
- Evaluating the future of the biomedical workforce
- Creating the National Center for Advancing Translational Sciences
- Diversity among NIH grantees

Action items

The APS 2010 Strategic Plan established the goal of increasing efforts to ensure awareness of, and advocacy for, the discipline of physiology. In keeping with that objective, the Science Policy Committee (SPC) proposed three action items to the Council.

1. Chapter Advocacy Partnerships

The SPC and ACE Committees want to work with interested Chapters to provide advocacy programming. Advocacy was one of the priorities of the Strategic Plan, and the need to work more closely working with APS Chapters was identified as a cross-cutting theme. The SPC and ACE would like to offer the Chapters the option of having a speaker from one of the committees make a presentation on animal research or funding advocacy.

2. APS Early Career Advocacy Fellows

The SPC would like to increase the involvement of trainees and early career members in advocacy activities through the creation of an Early Career Advocacy Fellow Program. The SPC would select three to five fellows annually, and these individuals would be invited to a special session at the Experimental Biology meeting to learn about the Society’s advocacy efforts and receive preliminary training for Capitol Hill visits. The Fellows would then participate in the SPC’s fall meeting in Bethesda, including going on Capitol Hill visits along with SPC members who are experienced advocates.

3. Peer Review at the NIH

Identifying APS members to serve as peer reviewers for

the NIH has been a continuing challenge. Recently the Center for Scientific Review asked for help to identify early-stage investigators and underrepresented minorities to participate in its Early Career Reviewer program. At EB 2012 APS provided a forum for CSR Acting Director Dr. Richard Nakamura and also invited him to contribute an article for the October 2012 issue of *The Physiologist*. To further facilitate the recruitment of APS members as peer reviewers, the SPC proposed working with the Sections to identify various ways to establish lines of communication with NIH staff.

- Council accepted the report of the Science Policy Committee.
- Council approved a motion to provide funding for speakers to attend two-three chapter meetings per year to advance advocacy efforts.
- Council approved the establishment of an APS Early Career Advocacy Fellows program to help trainees become involved in advocacy efforts.

Senior Physiologists



Margaret Anderson, Chair

Five senior physiologists (William Dantzer, Frank Knox, David Osborne, Philip Posner and Margaret Anderson) comprised the Senior Physiology Committee in 2011. One of the primary duties of each Committee member is to “develop and maintain liaison with emeritus members and members about to retire.” This liaison is accomplished by submitting, on behalf of the Society, a personal 70th, 80th, 90th, or 100th birthday greeting. Thus, each committee member makes about three dozen

mailings in the course of the year. Each greeting includes an invitation for the senior recipient to inform APS about his or her current activities, interests and whereabouts, and requests “words of wisdom” for younger colleagues. The historical and philosophical commentaries evoked by this invitation provide the material subsequently published in “Senior Physiologist’s News” in each issue of *The Physiologist*. By the end of 2011, the Senior Physiologist Committee members sent birthday wishes to 131 members reaching age 70, to 56 members reaching age 80, 26 members reaching age 90, and to four members reaching the age of 100! Fourteen response letters were received and published in *The Physiologist*.

Responses from recipients of these birthday greetings are extremely positive and enthusiastic. Whether retired or still working in their labs, the majority of seniors obviously retain their passion for science. They express in innumerable ways how fulfilling they have found life and how important APS has been during their careers.

Another responsibility of the Senior Physiologists Committee is to review applications and recommend to

Council the annual awardees of the \$500 G. Edgar Folk, Jr., Senior Physiologists Award. This award is designed to support the scientific activities of a senior member. In 2011, one award was made to George Tanner to help defray costs associated with attendance at two international meetings and expenses associated with preparing new Power Point slides for two invited talks.

At their spring 2012 meeting, the APS Council discussed ways to encourage more members to self-nominate for membership on this Committee. The Council approved a motion to change the name of the committee to the “Distinguished Physiologists Committee” in hopes of encouraging more applications. The new name is now being used.

- Council accepted the report of the Senior Physiologists Committee.
- Council approved changing the name of the Committee to the “Distinguished Physiologists Committee.”

Trainee Advisory



Jennifer Mayberry Sasser, Chair

TAC Trainee Survey

A full analysis of the 2010 survey results, analyzed by educational level, was provided to Council last fall. A TAC subcommittee is working on a manuscript to publish the 2010 survey results. At the fall 2012 TAC meeting, the Committee will begin planning for the 2013 survey, including discussion of topics and objectives.

EB Symposia

The 2012 TAC Symposium was entitled, “E-media Tools for the Professional Scientist,” and was organized by Erica Dale and Jennifer Bomberger. It included presentations highlighting many new, exciting technologies in locating funding, teaching, online science communication, and communication with social media. It also included some of the ethical implications of social media including: scientific ghostwriting for Facebook, Twitter or blogs, getting paid for science writing in the social media, and ethical implications to consider when putting work online.

In 2013, the TAC symposium will focus on skills needed for translational research. Committee members Julie Rennison and Annie Whitaker are organizing the session which will include talks on what “translational research” really entails, funding opportunities for translational research, perspectives from established translational investigators, and a panel discussion with both invited speakers and new investigators.

Trainee Web Page

The new APS website provides “front page” links for trainees, with separate pages for early career professionals, postdocs, graduate students and undergraduate students. Education Office staff have created basic information and

links on each page. The Committee will continue to discuss further enhancements needed on these information pages.

APS Trainee Facebook site and Twitter

(www.facebook.com/apstraineess, @apstraineess)

The APS Trainee Facebook page currently has 232 Facebook "Likes." Postings come from staff, TAC members, and APS Twitter feeds, providing regular communication to the trainee Fans from the APS and the TAC. At the fall meeting, TAC establishes monthly topics relevant to trainees and assigns members responsible for posting materials.

Dale J. Benos Early Career Professional Service Award

The TAC received 17 completed and highly competitive applications for the 2012 award; this was a record number of applicants. The Committee selected Jennifer Uno, Assistant Professor, Department of Biology, Elon Univ., was the awardee. Uno has a remarkable level of service within the APS, as well as with students at the graduate, undergraduate, and K-12 levels. Her service includes participating in institutional and APS policy and programming committees, teaching/mentoring, leadership and outreach. This service was visible during her time as a graduate student and post-doctoral fellow and continues now as a faculty member. She will prepare an article for a future issue of The Physiologist.

Outreach to New APS Trainee Members

TAC members have received numerous responses from new members asking how they can become more involved in APS. TAC is preparing a document to explain to trainees the opportunities for involvement in APS activities and governance and how to apply for them.

Outreach to Undergraduates

TAC members continue to use social media tools (Facebook and Twitter) along with the APS website and newsletter to engage both undergraduate students and physiology trainees. TAC business cards were distributed again at EB 2012 to increase awareness of these social media websites. TAC members attended the EB 2012 Undergraduate Poster Session and engaged many of the undergraduate students in discussions of their research, encouraged them to become APS members, and promoted the APS social media sites. The Committee also collaborated with the Career Opportunities in Physiology Committee on the 2012 EB Undergraduate Orientation Session, presenting a portion of the orientation talk and interacting with undergraduate students at the session tables. The TAC plans to continue these activities in 2012-2013.

Communication with Sections

To gain a better idea of current Section activities related to trainees, the TAC did a brief survey of APS section chairs in April-June 2012. Responses were received from all sections. The most common trainee activities for sections were research awards for trainees and junior faculty, discounted banquet tickets for trainees, involvement of junior faculty as symposia speakers, and e-media (primarily listserv) use. About two-thirds of the sections have a trainee section in their newsletter and have trainees co-chair symposia or featured topics at EB. The remaining activities, including trainee-driven sessions and trainee subcommittees were less

common among the sections. Some sections have activities in the planning stages but, unless they indicated that these would be implemented in 2012-2013, they were not counted as current activities.

Communication with APS Committee Trainee Members

The inclusion of trainee members on APS committees and section steering committees provides an excellent opportunity for both the trainee and the committee to benefit from the perspectives of these new physiologists. Informal conversations by TAC members with trainee members on committees suggest that their role on the committees vary widely, from full committee member activities to primarily observation. Of course, the role of the trainee on the committee is influenced strongly by the committee chair. The TAC proposes several activities to promote "best practices" for trainee participation in APS committees. Specifically: 1) The development of a "best practices" document for trainees describing how to serve on an APS committee; 2) the development of a "best practices" document for committee chairs on working with trainee committee members; 3) establishment of a networking breakfast session at EB for all trainee members of committees, hosted by TAC, for the purpose of sharing what committees are doing and how trainees can be involved; and 4) a brief survey of committee chairs and trainees to learn more about the role of trainees on APS committees and to identify effective models and methods to share with committee chairs and trainees.

- Council accepted the report of the Trainee Advisory Committee.

Women In Physiology



Angela J. Grippo, Chair

Bodil Schmidt-Nielsen Distinguished Mentor and Scientist Award

Ten nominations were received for the 2012 Bodil Schmidt-Nielsen Distinguished Mentor and Scientist award. Members of the Women in Physiology Committee reviewed the nominations and selected Kim E. Barrett, Univ. of California, San Diego, as the awardee. Barrett received an honorarium of \$1,000, a plaque, and reimbursement of expenses to attend the EB 2012 meeting.

Barrett gave a talk on mentoring, entitled, "How to Believe in Others (and Other Musings on Mentoring)." The lecture was followed by a buffet reception to which APS Council members, former Schmidt-Nielsen Awardees, Barrett's nominator, Declan McCole, her mentees, awardees of the various APS award programs (tum Suden, Minority Travel Fellows, Porter Fellows, etc.), other trainees, and guests specified by the awardee were invited.

Professional Opportunity Awards: Caroline tum Suden/Frances Hellebrandt, Steven M. Horvath, Fleur L. Strand, and Gabor Kaley Awards

The Women in Physiology Committee received 123 applications for the 2012 Professional Opportunity Awards. The Committee was able to fund 38 tum Suden Awards, two Horvath Awards (given to the top two underrepresented minority applicants), one Strand Award (given to the top applicant) and two Kaley Awards for a total of 43 awards (35% of applicant pool).

Career Mentoring Resources

The Committee developed five articles in 2011 and three articles thus far in 2012 for *The Physiologist* with related bulletin board discussion topics at the mentoring website.

MentorNet Mentoring Program

The Committee launched the APS MentorNet collaboration in October 2007. MentorNet is need of both mentors and mentees from APS. The Committee will continue to recruit students and mentors in the coming year and hopes for additional program growth as students become aware of the program. The Committee plans to increase the visibility of MentorNet by sending specific emails to APS members on APS listservs and suggesting additional links to the MentorNet website from specific APS web pages.

Experimental Biology Mentoring Workshop

For EB 2012, the workshop was entitled, "Conflict Resolution: How to Keep Everyone Happy!" Forty-nine attendees completed a survey. Based on survey responses, the audience was primarily postdoctoral fellows (24%), graduate students (20%), junior faculty (16%) and senior faculty (14%). The speaker presentations were rated highly, and the audience participation in the last 30 minutes was very dynamic. For EB 2013, workshop organizers Kathleen O'Hagan, Midwestern Univ. and Anne Dorrance, Michigan State Univ. will chair a session on "The Changing Face of Tenure."

Representation of Women in APS and Scientific Community Leadership

In reviewing the membership of the APS Section Advisory Committee (SAC) and other Society committees, it was dis-

covered that the representation of women on the Society's committees continues to be very good. The WIP Committee commends the Committee on Committees for its ongoing attention to gender diversity on APS appointed committee positions. The WIP Committee is also pleased to note that, in 2012-2013, the APS Council has five women members out of nine (56%) as well as women in both the President and President-elect positions. Overall, seven (58%) of the 12 elected members of Council are women. This is a first for the APS and clearly reflects the increasing role of women in the Society as a whole and especially in both Section and Committee leadership positions which provide important visibility and service opportunities. Furthermore, it underscores the importance of encouraging all sections to involve women in their leadership positions. SAC has five women representatives (42%) and the new chair is Ann Schreihofner. Currently, all but three sections have steering committees where at least 25% of the members are women. Similarly, all but three APS committees are comprised of at least 25% women members.

FASEB Excellence in Science Award

For the 2013 award, Terry Orr-Weaver, from the Whitehead Institute for Biomedical Research in Cambridge, MA, was selected. She is a member of the National Academy of Science (NAS), American Academy of Microbiology, and American Association for the Advancement of Science. Membership in the NAS is imperative in order to win this award. The WIP Committee thanks Tish Weigand, our previous trainee representative, for compiling statistics on NAS membership. She has determined that there are 255 women in the NAS. Only six are currently members of APS. The Committee has been discussing strategies to increase the number of APS women who are NAS members, as that is a critical element for successful candidates for this prestigious award. More importantly, the Committee is very concerned about overall APS representation in the Academy (both men and women physiologists). ❖

• Council accepted the report of the Women in Physiology Committee.

The EB 2012 Symposium on
Animal Research & Public Outreach
is now online!



Featuring insights from a researcher, a laboratory animal veterinarian, and a media expert, all experienced in engaging the public about animal research

www.the-aps.org/outreach

Maria Urso Receives Presidential Early Career Award



APS Member Maria Urso received the Presidential Early Career Award for Scientists and Engineers, or PECASE, at the Smithsonian Museum of Natural History, July 31, 2012. Urso was among nearly 100 other budding scientists and engineers

Maria Urso

who received this year's award based on scientific merit, as well as involvement in the community. The PECASE is the highest honor bestowed by the US Government on science and engineering

professionals in the early stages of their independent research careers.

Urso has worked at the US Army Research Institute of Environmental Medicine's, or USARIEM's, Military Performance Division at Natick Soldier Systems Center in Natick, MA, since 2006. She received the award for her scientific contributions in the area of cellular mechanisms of musculoskeletal injury and repair and for her service to both military and civilian communities. Urso is involved in mentoring and serving the community. Her lengthy list of community outreach includes co-chair of the American College of Sports Medicine Cellular and Molecular Biology Interest group, a Fellow of the American College of Sports Medicine, program committee member for the American College of Sports Medicine and committee member for the Women in Physiology group of the American Physiological Society.

After receiving a BS and a MS in kinesiology from the Univ. of Rhode

Island, Kingston, in 1997 and 2000, Urso received her PhD in kinesiology from the Univ. of Massachusetts, Amherst, in 2006. She was then commissioned and served four years in the Army as a captain at USARIEM and has stayed on as a civilian since 2010.

Arie B.J. Groeneveld, has moved to the Intensive Care Department of Erasmus Medical College, Rotterdam, Netherlands. Prior to this move, Groeneveld was Professor of the Department Intensive Care at VU Univ. Medical Center, Amsterdam, Netherlands.

Sergry Dikalov is now Associate Professor, Department of Clinical Pharmaceutical and Division of Medicine, Vanderbilt Univ., Nashville, TN. Prior to this move, Dikalov was Associate Professor of the Department of Cardiology, Emory Univ. School of Medicine, Atlanta, GA. ❖

Distinguished Physiologists

Letters to Terry Dwyer

Michael T.C. Liang writes: "Thank you for your "best wishes" on my 70th birthday, it has been joyful and productive in pursuing my profession, research manuscript writing and teaching. My colleagues, former medical students and fellow runners/cyclists would probably like to know what happened after I left the New Jersey School of Osteopathic Medicine. I quit long distance training and running marathon races. I have not retired from California State Polytechnic Univ., Pomona. In addition, since 2001, I have volunteered to serve as a head judge of a track and field competition in southern California annually. Prior to attending graduate school I never taught physiology, yet, somehow, I have passionately taught for 30 years and have no plans to retire from my present academic career. As a college professor I empower my graduate and undergraduate students of various health professions so that each actualizes his or her unique potential and contributes to a diversified community and society. Through a system distinguished by rigorous academic discipline of physiology, my traditional academic training

began in a research laboratory at the Univ. of Minnesota in the Physiological Hygiene Laboratory, and later at NASA Ames Research Center, Bone Hormonal Research Laboratory. After many years of research proposal writing, I received a few external research supports one of which was from the National Institutes of Health SCORE SC1 Award. This important part of my academic life—research and publishing manuscripts, will continue. Regarding the annual APS events, the FASEB and the IUP meetings, I plan to attend many more in the coming years with my students, my wife and daughter. Truly, I enjoy seeing old friends and meeting new colleagues at these gatherings and listening to presentations given by outstanding physiologists from all over the world. Keeping in touch with family is important to us, so we have visited our relatives in London, Malaysia, Hong Kong and New York."

Marshall D. Lindheimer writes: "On day one of my 81st year I received both congratulations and a query from the 'Senior Physiologists Committee.' The first was appreciated, the second perplexing as they wished to know 'what

was I doing presently,' am I still active, writing, consulting, 'and the like' (How tender not to say to a geriatric species 'still doing research?!'). When asked such a question I conjured up a Woody Allen skit of a mother being asked by relatives at a barbecue, 'What is your son Yussel doing?') At any rate, here goes.

"First as requested I sent in an updated CV, now in the APS archives for any one wishing to be bored. To the chagrin of Univ. administrators I have never followed their instructions, especially omitting the listing of successful grant applications, telling those officials it never matters how much gelt you receive, it is what you produce (and I hope it is only administrator types who believe that noting grant awards really demonstrates productivity). I am the first to admit that past 80 I am no longer productive but am enjoying those privileges of old academic age; that is requests for reviews and editorial comments, as well as things one never declines, receiving awards and honors. Let me start near the beginning of this millennium.

"Old academics never die, they become emeritus. I actually did this in

2000. As a perennial delegate to my University's council I frequently spoke against using phrases like "buy out plans" stating, non mandatory retirement should never have included tenure, as Universities, like my own (one that likes to boast association with 85 Nobel laureates, unfortunately weighted favoring economists) would no longer progress if its professors were allowed to remain through their 90s, and that one should not use a term like "buy out" for those altruistic enough to give it up at an appropriate age. When I actually emeritized (and accepted my buy out!), one of my two chairs was heard to remark, 'Why is Lindheimer retiring?' When told my speeches were in the Univ. archives and I would feel a hypocrite if I did not, he said, 'Who reads the archives?' At any rate and as a result of this action I have continued what some call workaholic practices that hopefully do credit to my Univ. (but at no salary!). However, the one, perhaps, relief, has been giving up clinical work, (remember in addition to teaching, research, defending grants, the clinical scientist sees patients). The reward of this extra time has been to replace the invitation to lecture overseas with a business class ticket split into economy so wife can come and enjoy listening to you talk shop with colleagues in Parisian cafés, for true vacations, and here too scientific enquiry has triumphed. I discovered most Universities sponsor alumni trips, sometimes a few combine. A faculty lecturer is often on board, and there is always a representative from the alumni association, of course looking for the million-dollar donor (not me). The make up of these groups is fantastic (the only boring people are the doctors!).

"That was my free time, now for 'accomplishments.' Shortly before emeritizing I handed the last year of a grant to a younger collaborator hoping the renewal would help his career (it did not work). As my Swiss wife owned a house near Geneva, I thought we would return and enjoy the scenery, while I tried a new career, as an external advisor to World Health Organization, throwing my skills into their trials principally held in developing nations. Unfortunately, and in part due to a serious auto mishap the European sojourn did not last long, however, the main reason for returning to Chicago was that Hyde Park in

Chicago, the home of my Univ., is an amazing intellectual and international community (except again for we doctors!). However my associations with WHO has lasted till this day.

"One policy I introduced and believe succeeded was insisting that because these studies were performed in developing countries they need not be confined to giving a medication or recording observations, but ancillary and other studies could be performed that aim at explaining basic mechanisms as well. Other of my roles this past decade have included encouraging house officers in clinical department to undertake basic and translational research and steering them to understanding cosponsors who have the facilities and green support. One might guess which ones through my CV. I also continued editing Chesley's Hypertensive Disorders in Pregnancy, but insisted on giving up the reigns this year after writing in the last preface the a scholarly reference text should not continue to be edited by someone over 80 (the reader is requested to vote on the sagaciousness of that decision!) Finally, let me end with a recap of other achievements (awards and honors to some), especially this last decade and end with what I considered the research and other achievements I feel most proud of.

"Prior to the 1990s I had only received the Chesley award for 'distinguished research in hypertension of pregnancy,' but as productivity declined the awards proliferated, with a fellowship ad eundem, from the Royal College of Obstetricians and Gynecologists (London), 1993, honorary membership in the Society for Maternal Fetal 1998, a Univ. of Chicago Alumni award, 2001, Lifetime Accomplishment awards from both the Preeclampsia Foundation and the National Kidney Foundation of Illinois, 2006, the Belding Scribner award from the American Society Nephrology, 2008, Chicago Lying in hospital's Board of Directors' Joseph Bolivar De Lee Humanitarian award (with a "Dear Marshall" congratulatory note from President Obama) in 2009. Most recently, however, (December 2011), I enjoyed receiving an honorary medical doctorate (Honoris Causa) from Bern Univ. I must admit the presentation was in Swiss German and the diploma in Latin so I am not so sure why I received it. I was told they noted some

of my relationships with investigators studying preeclampsia in Bern, but failed to mention my sabbatical in Geneva many years ago with a renowned hypertension investigator, Michel Vallotton (whose uncle Felix also did well as a painter). It reminded me a bit of my sabbatical as the Franqui Professor in Leuven Belgium, the Flemish speaking part of the country where I was made to lecture in English, though I could have in French!

"Well so much for recounting the accolades. Let me end by reminiscing over a few research accomplishments and one act that ought to be dear to the hearts of fellow members of the American Physiological Society. I have published basic, translational, and clinical research, but the basic studies performed primarily as an integrated physiologist remains most dear to my heart. These include early studies on renal sodium handling in pregnancy including the role of Na K ATPase (transport being a bit simpler back then). I am most proud of our work on vasopressin in pregnancy, including explanations regarding the resetting of osmotic thresholds for drinking and secretion of vasopressin, (It actually led to predicting and finding a new disorder, 'transient diabetes insipidus of pregnancy'). Lastly were studies explaining renal handling of protein excretion during gestation using dextran-sieving methodology. Finally some pride in one of my few "administrative" achievements.

"I seem to have that bad habit of saying what I thought (though never with malice) especially to Univ. and NIH officials, one reason why most Executive Secretaries refrained from inviting me again! Once many years ago I was consulted regarding a career development application at another institution that was in two institutes NIDDK and NICHD. It missed the funding level in the latter institute but not the former (the hypertensive complications of gestation always do poorly in research dollars in terms of DALYs (Disability Adjusted Lost Years). I called up one institute official saying if it had two institute designations why could it not be transferred to the one with funding potential and it was. The recipient of the award then a young Kirk Conrad went on to receive the Ernest H Starling lectureship award from the American Physiological Society at their 2010 meeting.

"Enough reminiscing; that took me all the way to day three of my 81st year."

Virendra B. Mahesh writes: "I would like to express my sincere appreciation for your congratulations on my 80th birthday. In response to your inquiry about my current and planned activities I will give a brief narrative of what I have done since my retirement in June 1999 and what I plan to do in the future.

"I retired in June 1999 at age 67 after being on the faculty of the Medical College of Georgia (now Georgia Health Sciences Univ.) for 40 years. During my tenure at the Medical College of Georgia, I was Chairman of the Department of Endocrinology from 1972 to 1986 and Chairman of the Department of Physiology and Endocrinology from 1986 to 1999. Since my retirement, I have continued collaborative research with my former colleagues at the Medical College of Georgia and have published 31 articles in peer reviewed journals, the most recent being 'Hirsutism, Virilism, Polycystic Ovarian Disease, and the Steroid-Gonadotropin Feedback System: A career Retrospective' Virendra B.

Mahesh *Am J. Physiol. Endocrinol. Metab.* 304: E4-18, 2012. I attach to this letter my CV, List of Publications and the PDF of the above-mentioned article. I have also been an active member of the Faculty of 1000 and contributed commentaries on recent publications of interest. In 2011, I also published an autobiography entitled 'Virendra Bhushan Mahesh' (blurb.com/bookstore: search for Virendra Bhushan Mahesh under 'all').

"In 1999 I was elected to the Steering Committee of the Section of Endocrinology and Metabolism of the American Physiological Society and became a member of the Joint Program Committee of the American Physiological Society representing the Section of Endocrinology and Metabolism from 2001 to 2004. I then was elected as Chair and Section Advisory Committee Representative, Section of Endocrinology and Metabolism of the American Physiological Society from 2004 to 2006.

"In 1999 I took over as Editor-in-Chief of the journal *Biology of Reproduction* for a period of five years

followed by five years as Consulting Editor. I was Chair or Co-chair of the Publications Committee of the Society for the Study of Reproduction from 2004 to 2011, a member of the Societies Public Affairs Committee from 2004 to 2012 and an Ex-officio member of the Society for the Study of Reproduction Board of Directors from 1999 to 2004 and 2010 to 2011.

"I served as a member of the Board of Directors of FASEB from 2004 to 2007 and from 2008 to 2012. I also am serving on the NIH Issues of the subcommittee of the Science Policy Committee of FASEB since 2004. Currently I serve on the Editorial Board of the journal *Steroids* and the Journal of Steroid Biochemistry and Molecular Biology. I regularly write commentaries as a member of Faculty of 1000 and review papers submitted to about 15 journals. I am an active member of the American Physiological Society, Society for the Study of Reproduction and the Society for Neuroscience and regularly attend the annual meetings of these societies and the Endocrine Society." ❖

Calls for Papers

Current Calls for Papers

Physiological Genomics
Mitochondrial Metabolism

NextGen Sequencing Technology-Based Dissection
of Physiological Systems

Technology Development for Physiological Genomics

Journal of Applied Physiology
Eccentric Exercise (February 1, 2013)

Advances in Physiology Education
Teaching and Learning of Professional Ethics

AJP-Heart and Circulatory Physiology
Mitochondria in Cardiovascular Physiology and
Disease (December 31, 2012)

Pathophysiology of Hypertension (March 31, 2013)

AJP-Lung Cellular and Molecular Physiology
Bioengineering the Lung: Molecules, Materials,
Matrix, Morphology, and Mechanics

Translational Research in Acute Lung Injury and
Pulmonary Fibrosis (July 1, 2013)

AJP-Gastrointestinal and Liver Physiology
Physiology and GI Cancer

Intestinal Stem Cells in GI Physiology and Disease

Innovative and Emerging Technologies in GI
Physiology and Disease

AJP-Cell Physiology
Cellular Circadian Rhythms (December 31, 2012)

Stem Cell Physiology and Pathophysiology
(December 31, 2012)

Proteomic and Metabolomic Approaches to Cell
Physiology and Pathophysiology (December 31, 2012)

**AJP-Regulatory, Integrative, and Comparative
Physiology**
Inflammation and Immunity in Organ System
Physiology (June 30, 2013)

Integrative Aspects of Energy Homeostasis and
Metabolic Diseases (June 30, 2013)

Fetal and Neonatal Programming: Epigenetic
Modification of Phenotype (June 30, 2013)

AJP-Renal Physiology
Renal Solute Co-Transporters and Exchangers
(July 1, 2013)

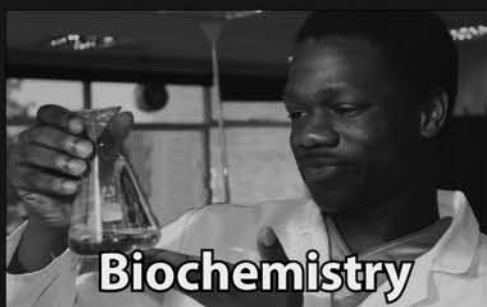
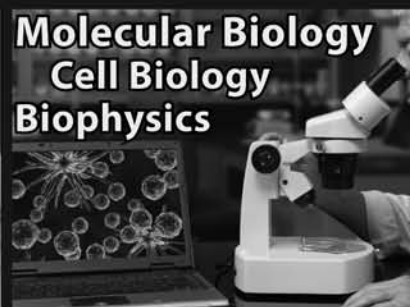
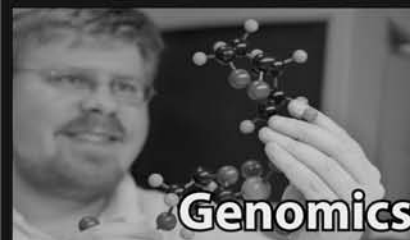
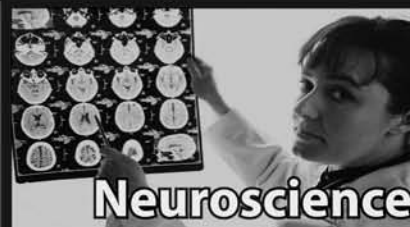
Chronic Kidney Disease and Fibrosis (July 1, 2013)

Renal Acid-Base Physiology (July 1, 2013)

Pathophysiology of Acute Kidney Injury (July 1, 2013)

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Physiology, Biophysics, and Biomedical Engineering:

Physiology, Biophysics, and Biomedical Engineering (Series in Medical Physics and Biomedical Engineering)
Edited by Andrew W. Wood
Florida, USA: CRC Press Taylor & Francis Group, 2012, 782pp, hardcover, \$99.95
ISBN 9781420065138

As an engineer who has found himself on the faculty of a medical school, I have often criticized the available medical physiology texts as having a low signal-to-noise ratio. It is not that the majority of these books suffer from many major inaccuracies or omissions. Rather, as successive editions grow well past the thousand-page mark, the signal content—in terms of physiological concepts and processes—is overwhelmed by the apparent primary purpose of these books, which is to delineate the terminology that must be memorized in order to pass the medical boards. Physiology, Biophysics, and Biomedical Engineering by Wood and colleagues has the opportunity to serve as an alternative exposition on physiology and biophysics, not

constrained by the content of the medical licensing exams, and instead focused on the mechanistic and physical underpinnings of “human biological systems” and “instrumentation...to monitor” these systems. Indeed the scope of this book suits this purpose. Yet its signal is weakened by a surprisingly high density of errors, incomplete and confusing explanations, and overall lack of organization.

While the authors draw on a great deal of experience in teaching physical and engineering concepts to physiology students, it is not clear if this book provides the most effective approach or whom the audience is meant to be. For example, the chapter on electrical circuits takes a largely descriptive approach, presenting terminology without conceptual depth. One could not apply the concepts from this chapter to analyze circuits. However, one could maybe learn some language that would be useful in talking to someone who does know how to analyze circuits. Other chapters go into greater depth with variable effectiveness, ranging from clear, concise, and organized (e.g., Chapter 3 on electrodes) to carelessly and hastily constructed.

Throughout the text careless language causes the reader a good deal of

confusion. Mathematical symbols are invoked in equations without names of definitions, making it difficult or impossible to follow what should be simple derivations. There are numerous examples in the text where terms and key concepts are applied in the text several (or several hundred) pages before the definition or explanation appears.

Yet all of this is not to say that the book is not useful. In fact, the book is full of useful material. The knowledgeable reader can fill in gaps and correct mistakes, as can the knowledgeable instructor. While the book is not likely to be suitable as a primary text or reference, a course instructor will find plenty of exercises and worked examples to supplement other teaching material. One need only use the material with proper caution.

In sum, *Physiology, Biophysics, and Biomedical Engineering* by Woods and colleagues is an ambitious and comprehensive text, covering not only physiology and biophysics, but also concepts from electrical engineering, optics, mathematical modeling, and other fields. It is perhaps not surprising that its ambition is not effectively realized. ❖

Daniel A. Beard
Medical College of Wisconsin

Positions Available

Faculty Positions

Assistant Professor: The Department of Pharmacology of New York Medical College, Valhalla, NY invites applications for two tenure-track positions at the rank of Assistant Professor. Applicants must have a PhD and/or MD degree with postdoctoral research experience. Candidates should possess strong backgrounds in the following areas: 1) hypertension and cellular/molecular renal and vascular pathophysiology; and 2) obesity, diabetes and metabolic disease. We are seeking candidates that complement existing areas of excellence in cardiovascular, renal and the pathophysiology of cardiovascular and metabolic diseases. Candidates must be able to demonstrate a high level of productivi-

ty and a strong commitment to biomedical education, and should be capable of establishing and maintaining an independent research program. We would prefer candidates that have currently funded research activities and a record of research accomplishments supported by publications in peer-reviewed journals. The Department of Pharmacology has a rich history of research and graduate education in pharmacology and is committed to providing high quality teaching. Through integrative relationships with clinical faculty, we offer an excellent opportunity to foster translational research. The department provides generous laboratory space and excellent access to equipment and core facilities. New faculty members receive competitive salaries and start up packages. Candidates to be considered should send a curriculum vitae, a statement of research plans, listings of previous and current extramural funding

and the names of three references in confidence to: Ms. Gail Anderson, Administrative Coordinator, New York Medical College, Dept. of Pharmacology, Basic Sciences Bldg., 15 Dana Road, Valhalla, NY 10595, Email: Gail_Anderson@nymc.edu. [EOE] Women and minorities are encouraged to apply.

Tenure Faculty Positions in Physiology: The Department of Physiology in the School of Medicine at LSU Health Sciences Center in New Orleans, LA seeks outstanding candidates for tenure track faculty positions at the associate professor and professor levels. Special consideration will be given to candidates with research strengths in cardiovascular physiology or alcohol-related disease states. Candidates with international distinction in cardiovascular research will be considered for the

Pfizer-Ardoin Superchair in Cardiovascular Research. The ideal candidate will lead an active, nationally funded research program, and will be expected to mentor students and fellows, and participate in graduate and undergraduate teaching programs. The department has a strong history of collaborative research programs and an NIH-sponsored training grant to recruit outstanding graduate students and postdoctoral fellows. Opportunities are available for interaction with the Alcohol Research Center, the Centers of Excellence in Alcohol and Drug Abuse, Cancer, Cardiovascular Biology, and Neuro-science, supported by a state-of-the-art infrastructure including access to core laboratories in genomics, proteomics, imaging, and flow cytometry. The institution offers generous laboratory space with competitive start-up packages and salaries. Additional information about the department and faculty is available at the web site: <http://www.medschool.lsuhsu.edu/physiology/>. The New Orleans metropolitan area is rapidly expanding and offers a culturally diverse environment with a sub-tropical climate. Applicants should send their curriculum vitae, a summary of research plans, teaching statement, and the names of at least three references in a single PDF to: physiologyrecruit@lsuhsc.edu. LSUHSC-NO is an EEO/AA employer. (REFERENCE # 95-44964-061).

Adjunct Instructor in Master of Physician Assistant Studies Program-Clinical Physiology/Pathophysiology: The Indiana Univ. Master of Physician Assistant Studies program on the Indianapolis campus is seeking a person or persons to teach clinical physiology/pathophysiology to entry level physician assistant students starting in May 2013. The instructor should have expertise in the subject matter, a master's degree or higher, and teaching experience. If interested, please contact James Zedaker, MPAS, PA-C; Academic Coordinator, PA program at jzedaker@iupui.edu or 317.278.9569. Women and minorities are especially encouraged to apply. Indiana University is an EEO employer.

Tenure/Tenure Track Faculty Position: The Indiana Univ. School of Health and Rehabilitation Sciences at

Indiana Univ. Purdue Univ. Indianapolis (IUPUI) is currently seeking an experienced educator/researcher in clinical physiology/pathophysiology to join our faculty in the graduate Physician Assistant Studies Program. Successful candidates will be appointed to a 10-12 month tenure track position at a rank, commensurate with experience and qualifications. Primary responsibilities will include teaching clinical physiology/pathophysiology to physician assistant students, student advisement, participation in research activities, involvement in admission, as well as recruitment and retention activities. Minimum qualifications: PhD, PA/PhD, or MD/PhD in Physiology or related field. Applicants with experience in teaching medical physiology and research experience are preferred. Excellent communication skills and the ability to work with an interdisciplinary team are required. Candidates should submit their curriculum vitae, a summary of past research and teaching experience, and the names of three references. Candidates will be notified before references are contacted. Women and minorities are especially encouraged to apply. Indiana Univ. is an EEO employer. All materials should be sent to: James C. Zedaker, MPAS, PA-C, Academic Coordinator-PA Program, IU School of Health and Rehabilitation Sciences at IUPUI, 2039 N. Capitol Avenue, Indianapolis, IN 46202-1221 or: jzedaker@iupui.edu.

Faculty Position: The Department of Molecular & Cellular Physiology invites applications for a tenure track position at the level of Assistant Professor. Successful applicants will be expected to develop an independent, nationally funded research program. Research areas are open, but preference will be given to individuals with an interest and record of achievement in the cardiovascular sciences. Information about the departmental research focus is available at <http://www.shreveport-physiology.com>. A generous startup package and appropriate space will be offered. Applicants should have a Doctoral degree and relevant postdoctoral experience. Applications will be reviewed as they are received until the position is filled. Send curriculum vitae and names of three references to: D. Neil Granger, PhD, Boyd Professor &

Head, Department of Molecular & Cellular Physiology, LSU Health Sciences Center, 1501 Kings Highway, Shreveport, LA, 71130-3932, FAX:318-675-6005, e-mail: dgrang@lsuhsc.edu. LSU Health Sciences Center is an Affirmative Action / Equal Opportunity Employer.

Faculty Positions: The Cardiovascular Physiology Department of Physiology at The Univ. of Tennessee Health Science Center (UTHSC) in Memphis invites outstanding scientists with PhD, MD, or equivalent degrees for two tenure-track faculty positions at the rank of Assistant or Associate Professor to begin January 1, 2013 or shortly thereafter. We are searching for creative cardiovascular research scientists who have or will establish a strong extramurally-funded research program and also excel at teaching medical, dental, and graduate students. The Department of Physiology has outstanding research facilities and is currently ranked second nationally for extramural funding based on a 2012 study by the American Physiological Society. We will consider applicants in all areas of cardiovascular research. Significant laboratory space, a substantial start up package, and a competitive salary with a generous incentive bonus are offered. Candidates should submit their Curriculum Vitae and a description of research interests and goals (not to exceed two pages) as a single PDF document to: Jonathan H. Jaggard, PhD, Maury W. Bronstein Professor, Department of Physiology. EMail: PhysiologySearch@uthsc.edu. Website: <http://physio1.uthsc.edu>. Reference letters will be requested after consultation with candidates. Applications should be submitted by September 15, 2012, although applications will be reviewed immediately upon receipt. The Univ. of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA employer.

Assistant Professor: The Department of Cellular and Integrative Physiology at the Univ. of Nebraska Medical Center is seeking applications to fill an Assistant Professor position. Priority will be given to candidates in the beginning or early stages of an extramurally funded research program. Candidates should employ modern genetic, cellular,

molecular, electrophysiological and/or integrative approaches to address questions related to physiology or pathophysiology. We are interested in individuals who apply new and innovative state-of-the-art molecular biology and/or imaging techniques to address and complement the integrative approaches already ongoing in this department. The successful candidate also will contribute to teaching medical and graduate students. Outstanding candidates in all areas of physiology will be considered, with special consideration given to investigators who will complement existing strengths of the department, which include Cardiovascular, Cardiopulmonary and Renal Physiology. Candidates should have a PhD, MD or other appropriate doctoral degree with relevant postdoctoral experience. Highly competitive salary and startup packages, including new state-of-the-art laboratory space, are available. The Department of Cellular and Integrative Physiology has a long history of national prominence in the areas of neural control of circulation, microvascular regulation, renal physiology and integrative physiology. The department is located in a new building, the Durham Research Center (289,000 sq ft) which houses 116 research laboratories. An adjacent second tower (264,000 sq ft) with 100 research laboratories further enables multi-departmental and multidisciplinary research interactions. Omaha, the nation's 42nd largest city, offers an outstanding school system, family-friendly attractions, low cost of living and numerous recreational activities. For more information about the department, please visit our website at <http://www.unmc.edu/physiology/>. Applications may be submitted online at <http://jobs.unmc.edu/postings/13657>. For additional information on the position, please contact: Harold D. Schultz, PhD, Chair, Search Committee, Department of Cellular and Integrative Physiology, Univ. of Nebraska Medical Center, 985850 Nebraska Medical Center, Omaha, NE 68198-5850. Email: hschultz@unmc.edu. Phone: 402-559-7167. The review of applications will continue until the position is filled. "UNMC is an equal opportunity employer. Individuals from diverse backgrounds are encouraged to apply."

Tenure-Track Faculty: The Department of Physiology & Pharmacology at

Des Moines University seeks to fill two open-rank, tenure-track faculty positions. The department aims to fill one position in the area of physiology and a second position in the area of pharmacology. Desirable applicants will either have preparation and expertise in physiology or pharmacology with an interest in teaching in the medical, podiatric, and health sciences curricula. Preference will be given to those candidates with demonstrated success in teaching a variety of physiology or pharmacology content areas. Applicants interested in the positions at the rank of Associate or Full Professor must have record of achievement in medical or health professions education, and a history of extramural funding. Des Moines Univ. is committed to advancing its research enterprise and fostering an environment conducive to individual and collaborative scholarly success through the cultivation of distinctive faculty and student researchers who discover and disseminate new knowledge. Therefore, desirable applicants will be able to demonstrate the potential to develop an innovative and extramurally funded research program that will augment the department's current research strengths. Applicants must have an earned PhD or equivalent and a minimum of two years postdoctoral experience. For full consideration, candidates are invited to submit a letter of application stating their interest along with their curriculum vitae, a concise statement of teaching interests and educational philosophy, a well-defined research plan including specific aims and objectives and contact information for three references using the online applicant tracking system at <http://www.dmu.edu/employment>. Review of applications will begin October 1, 2012 and continue until a successful candidate is identified and hired. Candidates with questions specific to this position may contact the Search Committee Chair, Dr. Matt Henry at Matthew.Henry@dmu.edu. For complete job description, Faculty benefit summary and/or information on Des Moines Univ., please visit <http://www.dmu.edu/employment>. "Des Moines Univ. is an equal opportunity/affirmative action employer. The Univ. seeks excellence through diversity among its administrators, faculty, employees and students. The Univ. prohibits discrimination on the basis of

race, color, national origin, creed, religion, age, disability, sex, gender identity, sexual orientation, veteran status, genetic information or any other legally protected status. Applications by members of all underrepresented groups are encouraged."

Research Scientist (Assistant/Associate Professor/Professor): The University of South Florida (USF) School of Physical Therapy and Rehabilitation Sciences, Morsani College of Medicine, Research Faculty, Center for Neuromusculoskeletal Research is a Carnegie Tier 1 Research Intensive university with 11 colleges and four campuses serving the Tampa Bay area. The Univ. enrolls more than 40,000 students annually in 79 undergraduate disciplines, 87 master's and specialist programs, and 25 doctoral programs, including the MD, DPT and Pharm.D. USF Health is a comprehensive academic health sciences center comprised of the Colleges of Medicine, Nursing, Pharmacy, and Public Health along with the Schools of Physical Therapy & Rehabilitation Sciences and Biomedical Sciences. The University's diverse population reflects the ethnic and cultural heritage of the Tampa Bay region, a community of some 2.5 million persons. The School of Physical Therapy & Rehabilitation Sciences has a Research Scientist (Assistant/Associate Professor/Professor) faculty position available within its newly created Center for Neuromusculoskeletal Research (CNMSR), part of the School's Human Functional Performance Laboratory. The successful candidate will be expected to establish and sustain an independent line of research and foster collaborations with other faculty within USF Health and across the USF Tampa campus in advancing a "cutting-edge" neuromusculoskeletal research program to benefit the state of Florida. The Human Functional Performance Laboratory currently boasts almost \$3M in extramural research funded through federal, state, and corporate sources, and is the cornerstone for the planned implementation of the School's PhD in Rehabilitation Sciences degree program. The current research portfolio focuses on spinal pain, disability and injury prevention; prosthetics technology and innovation for active and extreme environments; movement dis-

orders, and resilience in military, first-responder, and civilian populations. The Human Functional Performance Laboratory is a state-of-the-art clinical research laboratory for functional assessment in a wide range of neuromusculoskeletal clinical and translational studies. Research equipment and administrative services in the Laboratory are available for CNMSR faculty and collaborators to conduct comprehensive assessment of muscular strength and endurance, body composition, posture and joint assessment, gait, balance, cardiopulmonary testing, motion analysis, electromyography and advanced imaging, functional evaluation, and applied neurosensory testing. The USF Physical Therapy Center, the School's faculty practice, also provides the potential for patient-centered research with planned implementation of an Orthopaedic Physical Therapy residency. Faculty rank, salary, and start-up packages are highly competitive, commensurate with academic qualifications. The position is a 12-month position. Position (19081) – Research Scientist (Assistant/Associate Professor/Professor) Minimum Requirements for Appointment: Earned Post-Professional Doctoral Degree (e.g. PhD) in Epidemiology, Biostatistics, Biomechanics, Exercise Science, Rehabilitation Sciences, or Related Discipline, along with documented postgraduate expertise. Evidence of a sound background in analytical methods, clinical research study design, and biostatistics. Evidence of scholarly activity and grantsmanship as principal investigator in extramurally-funded clinical research. Evidence of successful men-

toring of junior academic researchers (e.g. postdoctoral scholars, faculty). Minimum five years academic experience at Assistant/Associate Professor rank to qualify at Associate/Full Professor rank. Application review begins immediately and will continue until this position is filled: Submit a cover letter and C.V. that includes 1) a plan for research, 2) record of extramural funding and 3) five professional references. Mail to: Search Committee, Research Faculty, School of Physical Therapy & Rehabilitation Sciences, Morsani College of Medicine, Univ. of South Florida, 12901 Bruce B. Downs Boulevard, MDC 77, Tampa, FL 33612. Link: <http://health.usf.edu/medicine/dpt/index.htm>. USF Health is committed to increasing its diversity and will give individual consideration to qualified applicants for this position with experience in ethnically diverse settings, who possess varied language skills, or who have a record of research that support/benefit diverse communities or teaching a diverse student population. The Univ. of South Florida is an EO/EA/AA Employer. For disability accommodations, contact Cindy Ippolito at (813) 974-6200 a minimum of five working days in advance. According to FL law, applications and meetings regarding them are open to the public.

Lecturer Position

Lecturer/Senior Lecturer, Physiology Ref. No. 12259: Cairns The School of Veterinary and Biomedical Sciences is seeking a Physiologist to

join the Discipline of Physiology and Pharmacology within the Faculty of Medicine Health and Molecular Sciences. Physiology is taught in a broad range of courses including integrated Medical and Veterinary Curricula; Rehabilitation Sciences; Biomedical Sciences; Sport and Exercise Science; Medical Laboratory Science; Pharmacy; Nursing; and Dentistry. The appointee will contribute primarily to teaching our Nursing, Sport and Exercise Science and Dentistry students. Collaboration between the Schools of Medicine and Dentistry; Public Health, Tropical Medicine and Rehabilitation Sciences; Pharmacy and Molecular Sciences; and the School of Veterinary and Biomedical Sciences at JCU presents unprecedented research opportunities. Employment Type: Appointment will be full-time on a continuing basis. Salary: Lecturer, Academic Level B: \$79,837-\$94,203 per annum; Senior Lecturer, Academic Level C: \$97,075-\$111,440 per annum. Level of appointment and commencing salary will be in accordance with qualifications and experience. Benefits include five weeks annual leave, generous employer superannuation contribution and attractive options for salary packaging. Applicants must follow the Method of Application procedures (including systematically addressing the Selection Criteria). Further information is available at <http://www.jcu.edu.au/jobs/> or by contacting the Recruitment Officer, Human Resources Management, e-mail jcu.recruitment@jcu.edu.au. Applications close on 12 October 2012.

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The Wine Wizard Peter Wagner

Hi all – This is what I wrote exactly 2 years ago:

“San Diego is broiling – y’all must be secretly very pleased that we are having to suffer out here just like y’all back there. It’s gonna make me cool down those crisp whites and delicious pinks and sit under the umbrella by the pool.....”. Well, we are burning up again this year.

Whites

2010 P. Boniface, Jacquere “Apremont”, Savoie, Les Rocailles \$12. The name is as much of a mouthful as the wine! And I never heard of the grape “Jacquere” before either. It has a forward nose of pear and citrus, and a palate that is very clean, bright, and more citrus than pear. High acid, but not tart, with distinct dry herbs (sage). Great on a hot day by the pool. Drink cold.

2011 Crossings Sauvignon Blanc, Marlborough, New Zealand \$8. Another good wine at a great price. At first a touch of wet wool, but that blew off. There is herbal gooseberry and lemon on the nose and palate. Acidity is on the high side even for NZSB, but now that most standard NZSB is \$12-\$15, what’s not to like here?

2010 Girard Chardonnay, Russian River valley, CA \$17. Normally, I would not advocate \$17 for a chard, but this is 2012.....The nose has butterscotch and some tropical fruit; the palate is rich and forward with citrus, honey, sweet vanilla oak, excellent acidity and it is very clean. It is very drinkable in an oaky style, but it does have the fruit and acid.

2010 Rodney Strong Chardonnay, “Chalk Hill”, Sonoma, CA \$14. This is oaky again with butterscotch on the nose, but lots of citrus too, and a clean, hi acid palate with citrus and green apples. The oak does not intrude.

2011 Willakenzie Pinot Gris, Willamette valley, Oregon \$16. While I still prefer Elk Cove PG from Oregon, this is no slouch. The nose has stonefruit and some lemon, and a leesy note as well that adds interest. The palate has tart grapefruit and peach, and is very crisp and clean, with no sweetness at all.

Reds

2010 McManis Petite Sirah, California, \$9. Gone are the days where



Peter Wagner

PS was all tanning and tasteless purple ink. This one has a floral and dark berry nose with a little hay. It takes a while to open, but then has excellent dark berry fruit, vanilla and a bit of hay. It is not tannic, rough, bitter or tart. Very slight sweetness makes it smooth.

2009 Bogle Petite Sirah, California, \$8-50. I love Bogle, What a bargain. Blueberries and vanilla oak on the nose; a lush rich mouthfeel with lots of blue-

berries, some vanilla, good length and richness, balanced acid, without being extracted or tannic.

2009 Bogle Zinfandel, Lodi, old vine \$8. Did I express my feelings about Bogle? Another winner for the price. Forward nose of red and dark berries, and a smooth fruit-driven palate of dark cherry and raspberry. There is some tobacco, medium tannins, balanced acidity, and a good finish. Not great Zin, but good; excellent value. Remember, Lodi is affectionately known as the armpit of California being positioned deep in the hottest parts of the central valley. The oven-like climate is good for very old (deep-rooted) Zin vines, with lots of flavor concentration resulting. “Fancy” grapes might cook in the heat, but Lodi Zin just tastes great.

2010 Kaiken Malbec, Mendoza, Argentina \$11. Standard grape, standard region and standard winemaker makes for a tasty wine. Interesting nose of red and dark cherry with distinct black pepper. The palate is medium in weight with lots of dark fruit, and a softness with balanced acid and good length.

Enjoy these drops, especially the whites this summer, but serve those whites quite cold! Even the reds could use a few minutes to cool down, to say 60-70 degrees F in the frig, when it is triple digits outside. Like it is now in San Diego. ❖

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April 20-24, 2013

Abstract Deadline: Thursday, November 8, 2012
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Boston Convention & Exposition Center

October 5-6

Pittsburgh International Lung Conference, Acute Lung Injury: New Mechanism, Future Therapies and the Translation to Clinical Care, Pittsburgh, PA. Information: Internet: <http://www.strategicresults.com/upitt>.

October 10-13, 2012, Westminster, CO

APS Intersociety Meeting: Integrative Biology of Exercise VI. Information: <http://www.the-aps.org/mm/Conferences/APS-Conferences/2012-Conferences/Integrative-Biology-of-Exercise>.

October 22-25

2nd International Neural Regeneration Symposium (INRS2012), Shenyang, China. Information: Internet: http://www.crter.org/E_Journal/e-images/meeting1.jpg.

October 18-21

Pan American Heart Failure Congress (PAHF 2012), Panama City, Panama. Information: Mrs. Tali Ogorek, Conference Secretariat, Paragon-Conventions, 18 Avenue Louis-Casai, 1209 Geneva, Switzerland. Tel.: 41 22 5330 948; Fax: 41 22 5802 953; Email: secretariat@pahfcongress.com; Internet: <http://www.pahfcongress.com>.

October 28-30

45th Annual Meeting of the Society for Leukocyte Biology, Maui, Hawaii. Information: Society Management Services, 9650 Rockville Pike, Bethesda, MD. Tel.: 301-634-7814; Fax: 301-634-7455; Email: slb@faseb.org; Internet: <http://www.leukocytebiology.org>.

November 14-18

XVI Latin American Congress of Pediatrics (ALAPE 2012), Cartagena de Indias, Columbia. Information: Ms. Tali Ogorek, Paragon Conventions, 18 Avenue Louis-Casai, 1209 Geneva, Switzerland. Tel.: 41 22 5330 948; Fax: 41 22 5802 953; Email: secretariat@congresosalape.org; Internet: <http://www.congresosalape.org/>.

November 22-25

The 2nd International Multidisciplinary Forum on Palliative Care, Florence, Italy. Information: Conference Secretariat, Paragon-Conventions, 18 Avenue Louis-Casai, 1209 Geneva, Switzerland. Tel.: 41 22 5330 948; Fax: 41 22 5802 953; Email: mfridenzon@paragon-conventions.com; Internet: <http://www.imfpc.org>.

December 2-4

Innovations in Cardiovascular Interventions (ICI 2012), Tel Aviv, Israel. Information: Shirley Dinenson, 60 Medinat Hayehudim St., Herzliya 46766. Tel.: 972-3-5767739; Email: secretariat@icimeeting.com; Internet: <http://www.icimeeting.com>.

December 5-7

The 32nd Annual Meeting of the Israel Orthopaedic Association, Tel Aviv, Israel. Information: Michael Keinan, Conference Secretariat, Medinat hayehudim 60, Herzeliya, Israel. Tel.: 972-3-5767738; Fax: 972-3-5767738; Email: mkeinan@paragon-conventions.com; Internet: <http://orthopedics.doctorsonly.co.il/2012/06/41181/>.

December 6-9

The World Congress of Clinical Lipidology, Budapest, Hungary. Information: Paragon-Conventions, 18 Avenue Louis-Casai, 1209 Geneva, Switzerland. Tel.: +41 22 5330 948; Fax: +41 22 5802 953; Email: vhymann@paragon-conventions.com; Internet: <http://www.clinical-lipidology.com>.

December 11-13

Metabolism and Endocrinology Themed Meeting, London, UK. Information: The Physiological Society, Peer House, Verulam Street, London, WC1X 8LZ. Tel.: +44 (0) 207 269 5725; Email: events@physoc.org; Internet: <http://www.physoc.org/me2012/>.

December 22-23

International Conference of Physiology, Ahmedabad, India. Information: BJ Medical College, Ahmedabad, Civil Hospita, Ahmedabad, Gujarat. Tel.: +919825768604.

2013

March 7-10

The 6th International Conference on Ocular Infections (ICOI), Santa Monica, CA. Information: Shirley Dinenson, Conference Secretary, 18 Avenue Louis-Casai, 1209 Geneva, Switzerland. Tel.: +41 22 5330 948; Fax: +41 22 5802 953; Email: sdinenson@paragon-conventions.com; Internet: <http://www.ocularinfections.com/>.

March 10-13

The Jerusalem International Conference on Neuroplasticity and Cognitive Modifiability, Jerusalem, Israel. Information: Internet: <http://www.brain-conference.com/en/>.

April 22-23

The 60th International Conference of the Israel Heart Society, Jerusalem, Israel. Information: Michal Keinan, 60 Medinat Hayehudim St., Herzliya 46766. Tel.: 972-3-5767738; Email: secretariat@icimeeting.com; Internet: <http://www.israelheart.com>.

July 15-19

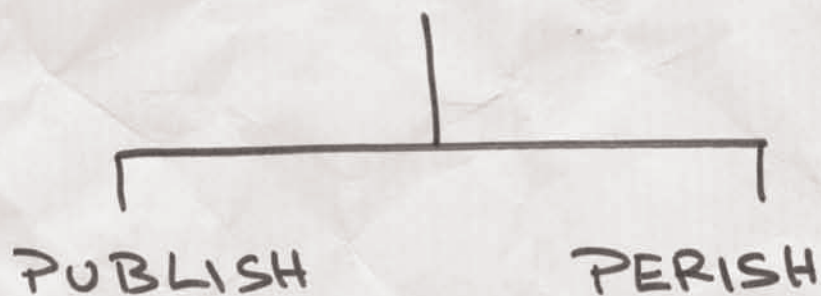
10th World Congress on Neurohypophysial Hormones, Bristol, England. Information: Internet: <http://www.vasopressin.org/#/wcnh-x/4014208>.

July 21-26

37th Congress of the International Union of Physiological Sciences (IUPS 2013), Birmingham, United Kingdom. Information: Internet: <http://www.iups2013.org/>.

September 6-9

45th European Brain and Behaviour Society Meeting, Munich, Germany. Information: Internet: <http://ebbs2013.com/>.

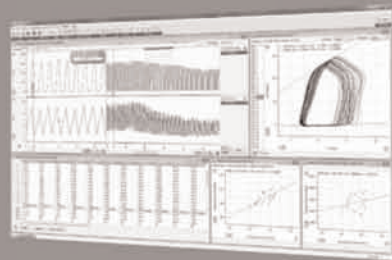


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