



The Physiologist

Douglas C. Eaton

78th President of APS



Douglas C. Eaton

“May you live in interesting times”

I would like to thank all the members of APS for the honor and privilege of serving as the 78th President of the APS. This is a particularly singular honor for me since I view myself as a physiologist by choice rather than by training. Despite starting my scientific life as a marine biologist and neuroscientist, I have now carried the banner of physiology for almost 33 years, most of that

time as an APS member. As Mark Twain suggested, “I never let my schooling interfere with my education.” After I “had seen the physiological light,” APS was important in developing my career, as well as the careers of many others, through its meetings, publications, and education programs. Serving as APS President is a great challenge because of the complexity of the Society and its many programs but also because of the rapid changes and challenges facing the discipline of physiology in this era of increasing national fiscal deficits and reduced federal support for science, in general, and physiology, in particular.

It is both an opportunity and a responsibility of each incoming APS President to write a “President’s Message” to the membership. As I pon-

der the content of this message, I am reminded of the variously attributed old folk curse, “May you live in interesting times.” As an incoming President, I must say that the crystal ball that I keep handy is particularly cloudy and unclear about the future, but there are some “interesting” things floating around in there. It would be a lot easier, hindsight being what it is, to write a farewell message

after my year as President. Nonetheless, looking forward, the APS is faced with a number of challenges in the near future: our approach to publishing the APS journals is being called into question by the “Open Access” movement; the possibility of actual reductions in the NIH budget (despite the recent period of budget doubling) has the potential to put a new generation of young physiologists at risk; animal rights advocates are pressing strongly to make research on animals impossible; and politically-based restrictions on some forms of scientific research and foreign researchers threatens to push bright minds and bright ideas off-shore.

(continued on page 52)

INSIDE

**APS 2006
Election Results**
p. 55

**NIH Announces
Voluntary Public
Access Program**
p. 64

**FY 2006 Research
Budgets**
p. 64

**Hay Named
University of Iowa
President for
Research**
p. 69

**Benos Named
First Holder of
UAB’s Endowed
Professorship in
Physiology**
p. 70

The Physiologist

Contents

Douglas C. Eaton		USDA to Phase in E-FOIA	
78th President of APS	49	Inspection Reports	66
Introducing Douglas C. Eaton	51	Book Reviews	67
APS Election Results	55	Books Received	68
Membership		People & Places	69
New Regular Members	56	Meredith Hay Named	
New Student Members	57	University of Iowa President	
New Affiliate Members	58	for Research	69
Recently Deceased Members	58	Peter C. Agre to Join Duke	
APS News		University Medical Center as	
Introducing Gregory L. Florant	59	Vice Chancellor for Science and	
Introducing Lisa M. Harrison-Bernard	60	Technology	69
Introducing Kim E. Barrett	61	Benos Named First Holder of	
Introducing Patricia Molina	62	University of Alabama-	
Introducing Chahrzad Montrose-Rafizadeh	63	Birmingham's Endowed	
Public Affairs		Professorship in Physiology	70
NIH Announces Voluntary Public Access Program	64	Positions Available	72
FY 2006 Research Budgets	64	Senior Physiologists' News	81
NIH Issues Conflict of Interest Rules for Intramural Scientists	65	Announcements	85
		Scientific Meetings and Congresses	86
		APS Membership Application	87

Published bimonthly and distributed by
The American Physiological Society

9650 Rockville Pike
Bethesda, Maryland 20814-3991
ISSN 0031-9376

D. Neil Granger
President

John A. Williams
Past President

Douglas C. Eaton
President-Elect

Martin Frank

Editor and Executive Director

Councillors

Carole M. Liedtke, Thomas E. Lohmeier, Virginia M. Miller, Helen E. Raybould, Jeff M. Sands, Charles M. Tipton, Irving H. Zucker

Ex Officio

Sue Barman, Kim E. Barrett, Robert G. Carroll, Curt D. Sigmund, Peter D. Wagner

Publications Committee: *Chair:* Kim E. Barrett; *Members:* Eileen M. Hassler, Martin F. Kagnoff, Mark A. Knepper, Ronald L. Terjung. *Director of Publications:* Margaret Reich. *Design and Copy Editor:* Joelle R. Grossnickle.

Subscriptions: Distributed to members as part of their membership. Nonmembers in the USA (print only): individuals \$60.00; institutions \$95.00. Nonmembers in Canada: individuals \$65.00; institutions \$100.00. Nonmembers elsewhere: individuals \$70.00; institutions \$105.00. Single copies and back issues when available, \$20.00 each; single copies and back issues of Abstracts issues when available, \$30.00. Subscribers to *The Physiologist* also receive abstracts of the Conferences of the American Physiological Society. The online version is available free to all worldwide.

The American Physiological Society assumes no responsibility for the statements and opinions advanced by contributors to *The Physiologist*.

Please notify the APS Membership Department as soon as possible if you change your address or telephone number.

Headquarters phone: 301-634-7118

Fax: 301-634-7241

Email: info@the-aps.org

<http://www.the-aps.org>

Printed in the USA

Introducing Douglas C. Eaton

Douglas C. Eaton is a Distinguished Professor and Deputy Chairman of Physiology and Professor of Pediatrics at Emory University in Atlanta, GA. He received a Masters in Marine Biology from Scripps Institute of Oceanography in 1969 and his PhD in Neuroscience from the University of California, San Diego, in 1971. He spent one year in the Marine Corps at the very end of the Vietnam era, but was released early because of the end of the war. He subsequently did post-doctoral work with Susumu Hagiwara and Jared Diamond at the University of California, Los Angeles, and with Felix Strumwasser at California Institute of Technology in Pasadena, CA. He became an Assistant Professor at the University of Texas, Medical Branch, in Galveston, TX, in 1973, an Associate Professor in 1978, and was appointed a full Professor of Physiology in 1985. In 1986, Eaton moved to Emory University in Atlanta where he became Professor and Deputy Chair of Physiology. In 1990 he was appointed as Professor of Pediatrics. In 1995 he established and became the Director of the Research Center for Cell and Molecular Signaling at Emory University and in 2002 he was appointed Distinguished Professor of Physiology.

Eaton's research has seemingly varied over his career. However, the central theme has been how membrane ion channels are regulated to produce cellular and organismal electrolyte homeostasis. When Eaton was scientifically growing up in the late 1960s and early 1970s, the ion channels to study were in nerve cells but, at that time, there were no mammalian preparations accessible for work on the single cell biophysics of ion channels. Therefore, most work was done on invertebrates, marine animals, or insects. These investigators euphemistically called themselves the "squishys" or the "crunchys." Eaton was a "squishy" working on the properties of potassium channels in neurons of the sea snail, *Aplysia*. He subsequently worked extensively on squid giant axon ion channels at Marine Biological Laboratory at Woods Hole. To this day, he keeps in touch with his

neuroscience roots by working on potassium channels in central neurons. This background helps to explain his degrees in Marine Biology and Neuroscience. However, new electrophysiological methods allowed an examination of the regulation of ion channels in other tissues. In the early 1970s, he began an examination of ion channels in sodium transporting epithelia, an area he has pursued for the last 30 years. His early work in this area was promoted by a Research Career Development Award from the National Institute of Arthritis and Metabolic Diseases (1978-1983). This award led to his use of single channel and patch clamp methods to examine the properties of sodium and chloride channels in both renal cells and lung alveolar cells. This work focuses on signaling cascades that regulate sodium and chloride transport with an emphasis on regulation by heterotrimeric and small G proteins and inositol lipids and inositol lipid kinases and the role steroid hormones play in this regulation. He has been continuously supported in this work and currently has a Merit Award from NIDDK. More recently, Eaton has begun an examination of salt and water transport by lung epithelial cells since it is critical for normal clearance of fluid from the lungs at birth and in the post-natal lung for maintaining a thin fluid layer on the surface of the airways to promote pulmonary gas exchange and clearance of foreign particulates from the lung. This work focuses on assembly, trafficking, and degradation of ion channels and how this affects the normal physiology and pathophysiology of the lung.

In addition to his research, Eaton directs the FIRST Program (Fellows in Research and Science Teaching), an NIH-funded initiative that pairs Emory University with the three minority-serving institutions, Spelman College, Morehouse College, and Clark-Atlanta University. The Program allows qualified postdoctoral fellows the opportunity to complete a traditional postdoctoral research program while also providing training in teaching methods and an opportunity for classroom experience. The Program

is also designed to increase the number of under-represented minorities in academic research careers. Eaton has over 120 research papers including papers in the Renal, Lung, Cell, and GI sections of the *American Journal of Physiology*. He has recently published a monograph for graduate and medical students on renal physiology. He has been an Associate Editor for *American Journal of Physiology-Cell Physiology* and is currently an Associate Editor for *American Journal of Physiology-Renal Physiology*. He is also on the editorial board of the *Journal of Biological Chemistry*. He served on National Science Foundation Neurobiology Advisory Panel from 1980-1983. He has been a regular member and Chairman of three NIH Study Sections: the Physiology Study Section (1985-1988); National Institutes of Digestive Diseases and Kidney Special Grants Study Section (1989-1993); and the General Medicine B Study Section (1994-1998). He also served on the NIH General Medical Sciences: Large grants (Glue) review panel (1999-2000). Besides the regular membership on NIH study sections, he has served on over 40 Ad Hoc Review Panels and Site Visit Teams for NIDDK, NHLBI, NIGMS, NCRR, and NCI since 1975. He also served on the National Institute of Standards and Technology Review Board from 1985-1999 and as a member Signal Transduction Review Panel for the American Heart Association.

Eaton became a member of the APS in 1981. In addition to his editorial work for *AJP-Cell Physiology* and *AJP-Renal Physiology*, Eaton has served the APS in several capacities. He was the Chair of the Epithelial Transport Group from 1988-1992 and continued on the Steering Committee until last year. He served on the Program Advisory Committee (1988-1991) and served on the Porter Physiology Development Committee promoting the development of minority physiologists (1990-1993). He has been on the Executive Committee of the Cell Section (1987-1990) and the Executive Committee of the Renal Section (1996-present). He was an APS

(continued on page 52)

(continued from page 51)

Symposium Organizer/Co-organizer at the Experimental Biology Meetings in 1986, 1991, 1995, 1996, 2000, 2002, and 2003 and an APS Specialty Meeting Organizer in 1992, 1997, and 2003. He was an APS Councilor from 2000-2003. He has participated in the APS *Frontiers of Physiology* hosting

K-12 science teachers.

Besides his service to APS, Eaton has been a Council Member, Secretary, and President of the Society of General Physiologists. He is a Fellow of the American Society of Nephrology and a charter member of the Society for Neuroscience. He is also a member of Sigma Xi, the Biophysical Society,

the American Association for the Advancement of Science, the American Society of Cell Biology, the American Society of Biochemistry and Molecular Biology, the American Society for Hypertension Research, and the American Thoracic Society. ❖

(continued from page 49)

Despite these dark clouds in the crystal ball, there appear to be some fair weather clouds as well. Never before have we had the methods to understand the physiological basis for disease: to investigate so thoroughly the complexities of living organisms. We can relate specific processes to molecular structures using recombinant DNA technology and by expression of proteins in cells and whole animals. Physiology is the discipline that allows an understanding of the transition from the function of genes and gene products to the responses of these whole animals. Besides the positive scientific challenges, the APS is faced in the upcoming year with its ongoing redefinition of itself: it is time to develop a new APS Strategic Plan for the next five years. This offers us a real opportunity to examine and capitalize on our strengths and recognize and correct our weaknesses in a way that allows our organization to respond to the opportunities and threats in the larger community of science and the world.

The challenge of support for science.

There can be little question that physiologists, along with other biomedical scientists, benefited enormously from the recently completed five-year doubling of the NIH budget. In a more global context, the American people also benefited from the substantial advances in health care and drug discovery made possible by biomedical research. Unfortunately, these past opportunities are set against a current shortage of resources. The

NIH budget increased by only two percent in fiscal year 2005, which is substantially less than the Biomedical Inflation Index. On top of the modest increase, additional funds were diverted from the NIH to other Public Health Service programs, leaving even less to be spent on programs at the NIH and leading to significant reductions in pay lines for new grants. The President's FY 2006 budget request to Congress for the NIH is for \$28.7 billion and contains a spendable increase of \$146 million (as reported in (1)). The good news is that spending for R01 grants received a \$52 million increase, more than a third of the \$146 million increase NIH has to spend in FY 2006. That achievement likely can be credited to NIH Director Elias Zerhouni, who

as responsive as they have been in the recent past, the current political climate and the state of the economy may make it difficult. I hope that, because of my familiarity and experience with funding agencies and review groups, I will be able to guide the APS at this time of serious questions about the funding base for research in the "post-doubling era" of NIH.

The APS journals and "Open access."

Central to the mission of the APS is the promotion and dissemination of scientific knowledge. Our 14 journals are a critical component of this mission. The journals have had a long history of excellence and innovation and by any of the measures of journal success (subscriptions, impact factor, time to print, submissions, or hits on the website) remain among the best of the biological journals. The transition to electronic editing and publishing is essentially complete and has been very successful (the publications component of the APS website received over 35 million hits last year). Anecdotally, I can say

The movement to promote open or free access....for online professional publishing is a fundamental threat to Society-sponsored publication programs.

from a personal standpoint, having been an Associate Editor for *AJP-Cell Physiology* in the pre-electronic days and acting now as an Associate Editor for *AJP-Renal Physiology* with electronic submission and review, I would never even think about going back. The journal formerly known as *NIPS (News in the Physiological Sciences)* has undergone a remarkable sea change transforming itself into *Physiology* under the direction of the Editor-in-Chief, **Walter Boron** and his editorial board. The new title reflects the emphasis of the journal on the discipline of physiology. *Physiology* contains

from a personal standpoint, having been an Associate Editor for *AJP-Cell Physiology* in the pre-electronic days and acting now as an Associate Editor for *AJP-Renal Physiology* with electronic submission and review, I would never even think about going back.

The journal formerly known as *NIPS (News in the Physiological Sciences)* has undergone a remarkable sea change transforming itself into *Physiology* under the direction of the Editor-in-Chief, **Walter Boron** and his editorial board. The new title reflects the emphasis of the journal on the discipline of physiology. *Physiology* contains

short review-type articles but also include several new features such as culled abstracts from other important papers, short articles on emerging topics and technologies, reviews of websites and occasional historical perspectives. The new look and content of the journal have been very positively received.

Launching what amounts to a new journal underscores the importance of the journal program to the overall health of the APS. The journals are critical for the dissemination of the latest, peer-reviewed, copy-edited, new, physiological science. The movement to promote open or free access ("free" used here in the sense of free-range chicken) for online professional publishing is a fundamental threat to Society-sponsored publication programs. The concept of "open access" was originally ascribed to the rapidly escalating costs of subscriptions to many leading journals produced by for-profit publishers and the poor access to the science in these journals even long after the original journal publication date. More recent reasons given for "open access" have been a desire to provide the general public with free access to scientific reports that were funded by the tax paying public and a suggestion that it represents a mechanism for NIH to "monitor" grant recipient productivity. In fact, the APS journals meet the objectives of the open access model (i.e., available free online to any individual) within one year of publication. APS has played a major role in establishing the "DC Principles," a statement of commitment to providing free, online access to our journal content an appropriate period after publication of the original article. More than 60 other not-for-profit publishers representing over 125 journals have signed the "Principles." In collaboration with Stanford University's HighWire Press, the DC Principles signatories have transformed their print journals to online journals that allow the scientific community and the public access to nearly 850,000 free full-text articles and the abstracts of over 15 mil-

...our strategic plans have had an enormous impact on the way APS conducts itself on a day-to-day basis because there is a commitment to review, revise, and implement components of the plan on a regular basis.

lion articles in more than 4,500 Medline journals.

Nonetheless, as I write this article, I am examining a statement I received recently as a Principal Investigator on an NIH grant that provides guidelines for depositing all articles that are a product of grant related research in the PubMed Central (PMC), a Public Access initiative of the NIH which will potentially divert a minimum of \$4 million from research at a time of diminishing resources. The crystal ball I referred to earlier is particularly unclear on the implications of the new policy both for me as an individual investigator and for the APS journal program as a whole. There are several problems with the proposed plan. First, it is unclear who will control the copyright to the published material and, therefore, how it may be copied and distributed. Second, it is unclear whom the gatekeeper and quality assurance monitor for the articles will be: if I, as a P.I., am responsible for depositing the material, who will check that I have deposited only the peer-reviewed material? And third, and possibly most important, is the proposed transfer of costs for publications from subscribers to authors? The advocates for open access maintain that this would enable researchers living and working in developing countries to have access to the information generated by scientists in wealthy nations, access that is already being provided by publishers through Hinari. However, little attention has been given to the question of how scientists in the US (let alone those in developing nations) will obtain funds to publish their work. Open access is not free as pointed out in a commen-

tary by APS' Executive Director, **Martin Frank** (2); and these new costs are particularly unappealing at this time of reduced NIH budgets and restrictions on grant funds. The present business model used by the APS shares the costs of publication between the authors (page charges, submission fee) and the subscribers. The open access model assigns the cost of publishing entirely to authors or through a fee paid by the authors' institution. Over and above the implications for individual members of the APS, the journals represent the major source of revenue used to support a variety of programs and activities of the Society. In this regard, APS is unlike many other scholarly societies, since other organizations rely nearly equally on revenue generated from their annual meetings and their publications program. For example, the ASCB generates about 35% of its total revenue each year from publications and meetings, while in the Society for Neuroscience, journal revenue accounts for 25% and its meetings for 45% of total revenue (3). For the APS, meetings represent less than five percent while publications account for about 85% of the total revenue. Thus, the APS is very dependent on the financial success of our publications program and any threat to our publication revenue represents a serious threat to the Society as a whole.

Where are we going, where have we been? APS strategic planning.

The APS has always encouraged its members to participate in evaluating the past programs of the Society and in developing a vision for the future of the organization. Usually, members have done this by working through their Sections or through Society committees on which they serve. Occasionally, however, we as a Society engage in a more structured and deliberative approach to examining direction, the development of a multi-year strategic plan. The first such plan was developed in 1992, and it became a benchmark for the Society's ability to set both short- and long-term goals, to implement new programs (or modify

existing ones), and most importantly, to monitor progress towards achieving those goals. A similar strategic planning effort was developed in 2000 and it represents a set of goals that guide the current efforts of the APS (4). However, a strategic plan is only as good as the commitment to implement it; a strategic plan developed for an organization that lacks the will to implement the plan is little more than empty rhetoric and worth about as much as the paper it is printed on. In contrast, our strategic plans have had an enormous impact on the way APS conducts itself on a day-to-day basis because there is a commitment to review, revise, and implement components of the plan on a regular basis. On the other hand, the process of responding positively to the plan must finally render the plan dated or obsolete. Therefore, recent APS presidents have emphasized the need to continue strategic planning on an ongoing basis (5, 6, 7). The Society's leadership will be developing a new Strategic Plan in 2005 that will be used to guide the Society over the next five years. To the end of providing input from as many APS members as possible in the strategic planning process, the Council and staff of the Society have distributed a member needs survey. The member input provided by past surveys has proven invaluable in previous strategic planning efforts, providing information about member satisfaction and problems with APS programs including scientific meetings, publications, public affairs and education. The character of the survey allows for an assessment of need for different groups within the Society and will help ensure that in a rapidly changing scientific environment, the APS stays at the forefront of the physiological sciences and scientists in the 21st Century. Your responses and opinions will be critical to the development of this Strategic Plan. As a member, you have received an email with your personal link to the survey. Please help the growth of the Society by participating in the survey, if you have not already done so.

Broadening our reach.

The imminent development of a new strategic plan has caused me to exam-

ine issues of contemporary physiology as I see it. I feel that physiology is at a crossroads. A decade ago, it was common to hear that "Physiology is dead." The implication was that physiology as a discipline had little relevance to the genomic initiatives that were underway at the time. It is now clear that this viewpoint is demonstrably wrong. If anything, physiology has become more important than it has ever been and is the critical discipline in interpreting the information about

The imminent development of a new strategic plan has caused me to examine issues of contemporary physiology as I see it.

the genome and more contemporary information about the proteome. One fundamental challenge to APS is to promote this idea from elementary school classrooms to clinical research laboratories. I feel well-positioned to help pursue this challenge because of insights from my own career transition from organismic physiology to the physiology of cell signaling and because of my experience with many aspects of APS ranging from Section and committee work to meeting organization.

On the other hand, I would also like the APS to adopt an aggressive approach to broadening our reach. The NIH Roadmap Initiative (8) provides us with both a unique challenge and a unique opportunity. The purpose of the Roadmap is to identify major opportunities and gaps in biomedical research that no single institute at NIH could tackle alone but that the agency as a whole can address, to make the biggest impact on the progress of medical research. The Roadmap consists of several components. Several of these components fit very well with expertise of APS members and Sections. The first is "Building Blocks, Biological Pathways,

and Networks." The overview of this area paints broad strokes, but the underlying message is that the area of cellular signaling and signal transduction will be reinforced at NIH. *Physiology in Focus* at the EB meeting in 2006 will focus on this area and I would like to see the APS journal *Physiological Genomics* issue a call for papers in this area. Not all areas of the Roadmap fit well with the APS and its members, but another area where we, as scientists and as a Society, should invest effort is in the Nanomedicine Initiative. Nanomedicine, an offshoot of nanotechnology, refers to highly specific medical intervention at the molecular scale for curing disease or repairing damaged tissues. It also provides an unparalleled opportunity to examine at close range how biological molecules and structures inside living cells operate. Nanomedicine is often considered high-risk research, but the Roadmap also contains a mechanism, the NIH Director's Pioneer Award, for funding such research. Nanomedicine is also interesting because research in this area will almost surely require interaction between physical scientists and physiologists (9) and interdisciplinary research is another component of the Roadmap and a stated goal of the APS. APS has also been at the forefront of scientific societies in promoting interaction between academic scientists and those in industry with a specific liaison committee and designated members of Section Executive Committees. We need to capitalize on this Roadmap component to foster Public-Private Partnerships and promote the APS commitment to industry-academic liaison. And finally, former APS President, **John Hall**, promoted the idea that physiology today should capture the concept of "translational" research (5). We need to reinvigorate this effort to take advantage of the Roadmap initiative that proposes to "Re-engineer the Clinical Research Enterprise."

The trick, of course, is to foster these programs in a time of budget austerity without jeopardizing our other research endeavors. Earmarking of funds should be strongly avoided, but since there is already a commitment on the part of NIH to find ways to sup-

port areas that many APS members and the Society as a whole already have an affinity for, we should actively pursue methods to promote "Roadmap" science at our meetings. I know of only one way to guarantee that we will not participate in Roadmap funding initiatives, and that is for us not to apply.

Credit where credit is due.

One thing that has become very obvious to me over the years I have been associated with the APS is that the membership plays an enormously important role in providing the soul and direction for the Society. However, a large part of the credit for the Society's success also goes to the 72 full-time staff that work each day to execute the day-to-day functions of the Society. **Martin Frank** should be commended for his management style and for his active role in providing infor-

mation and vision for Council. Marty clearly has a knack for identifying talent, as evidenced by his outstanding team of department managers, including Linda Allen (Meetings & Membership), Marsha Matyas (Education), Robert Price (Business), Alice Ra'anana (Public Affairs), Margaret Reich (Publications), and Sue Sabur (Marketing). The talent of this team and their dedication to the Society's goals are a positive force for the Society.

Finally, let me again paraphrase Mark Twain about my own commitment to the APS. I will always try to do right by the APS. This will gratify some people and astonish the rest. ❖

References

1. WASHINGTON FAX, [<http://www.washingtonfax.com>] February 28, 2005
2. Frank, M. Open does not mean free! *The Physiologist* 47: 151, 2004.

3. Miller, LP. Open Access: The future of scientific publishing: Negative implications of the movement on scientific society business models. Talk from Society of National Association of Publishers, Nov. 2003.

4. Boron, W.F. The APS Strategic Plan – A vision for the New Millennium. *The Physiologist* 43:71-74, 2000.

5. Hall, J.E. 74th President of the APS. *The Physiologist* 44:65, 74-79, 2002.

6. Horwitz, B.A. 75th President of the APS. *The Physiologist* 45:87; 96-99, 2002.

7. Williams, J.A. 76th President of the APS. *The Physiologist* 46:2, 2003.

8. The NIH Roadmap: Accelerating Medical Discovery to Improve Health. <http://nihroadmap.nih.gov/>

9. Dill, K.A. Strengthening biomedicine's roots. *Nature* 400: 309-310, 1999.

APS News

APS Election Results

The American Physiological Society announces the results of the election of officers for 2005.

Dale Benos, University of Alabama at Birmingham, is the new President-Elect.

The three newly elected Councillors taking office on April 6, 2005 are **Susan Barman**,

Michigan State University, East Lansing, MI; **Irving Joshua**, University of Louisville, Louisville, KY; and **Gary Sieck**, Mayo Clinic College of Medicine, Rochester, MN. The Councillors will serve for three years. ❖

President-Elect



Dale Benos

Councillors



Susan Barman



Irving Joshua



Gary Sieck

New Regular Members

*transferred from Student Membership

- Ann L. Akeson**
Cincinnati Children's Hosp., OH
- Cristina Maria Alberini**
Mount Sinai Sch. of Med., NY
- Cherry Ballard-Croft**
Univ. of Kentucky
- Edward James Bilsky**
Univ. of New England, ME
- Michael E. Bizeau***
Colorado State Univ.
- Harish C. Bohra**
Central Zrid Zond Research, India
- Pamela R. Bosch**
A.T. Still Univ., AZ
- Celine Boudreau-Lariviere**
Laurentian Univ., Canada
- Jatin G. Burniston**
Liverpool John Moores Univ., UK
- David R. Carrier**
Univ. of Utah
- Vivien A. Casagrande**
Vanderbilt Univ., TN
- Jiande Z. Chen**
Univ. of Texas Med. Branch, Galveston
- Sinead M. Clancy**
The Salk Inst., CA
- Barry W. Connors**
Brown Univ., RI
- Blaise Corthesy**
Univ. of State Hosp. (CHUV),
Switzerland
- Regina M. Crameri**
Concordia Univ., Canada
- David S. Criswell**
Univ. of Florida, Gainesville
- Xiaoling Dai**
Michigan State Univ.
- Brant Alan De Fanti***
Inst De Recherches Servier, France
- Patricia M. De Paula**
Univ. of Texas HSC
- Darren S. Delorey**
Medical College of Wisconsin
- James J. DiCarlo**
Massachusetts Inst. of Tech.
- Lauri J. Diehl**
Genentech, Inc., CA
- Anthony G. Doufas**
Univ. of Louisville, KY
- Yuanli Duan**
Univ. of Miami, FL
- Elia J. Duh**
Johns Hopkins Univ., MD
- Roberto Esposti**
Univ. of Degli Studi De Milano, Italy
- Jennifer R. Fagenbaum**
Univ. of Iowa
- William T.L. Festuccia***
Laval Univ. School of Med., Canada
- Jessica Andrea Filosa***
Univ. of Cincinnati, OH
- Uwe M. Fischer**
Univ. of Cologne, Germany
- Gerrit Flik**
Radboud Univ., Nijmegen,
Netherlands
- Eric Frank**
Tufts Univ. Sch. of Med., MA
- Jenny E. Freeman**
HyperMed Inc., MA
- Ellen V. Freund***
NOAA Fisheries, CA
- Frank Frisch**
Chapman Univ., CA
- Yves Y. Fromes**
Institute De Myologie, France
- Zhenxing Fu**
Univ. of California, San Diego
- Keith D. Garlid**
Portland State Univ., OR
- Roman G. Ginnon**
Albany Med. College, NY
- Maurico J. Giuliodori**
Univ. Nacional De La Plata, Argentina
- Kendra J. Greenlee***
Baylor College of Med., TX
- Hong Guo**
Univ. of North Texas HSC
- Yanlin Guo**
Univ. of Southern Mississippi
- Ossama A. Hatoum**
Med. College of Wisconsin
- Reid Hayward**
Univ. of Northern Colorado
- Katja Heinicke**
Univ. of Bern, Switzerland
- Erik D. Herzog**
Washington Univ.
- Peter J. Hespel**
FaBer-K.U. Leuven, Belgium
- Kenneth W. Hinchcliff**
Ohio State Univ.
- Andrew John Hoey**
Univ. of Southern Queensland,
Australia
- Burton F. Holmes**
East Carolina Univ., NC
- Jessica E. Huber**
Purdue Univ., IN
- Ayad Anis Jaffa**
Med Univ. of South Carolina
- Kathrine Jauregui-Renaud**
Instituto Mexicano Del Seguro Soc.,
Mexico
- Jan Kajstura**
New York Medical College, NY
- Yung-Hsi Kao**
National Central Univ., Taiwan
- Ian S. Kay**
Manchester Metropolitan Univ., UK
- Stephen J. Keely**
Univ. of California, San Diego
- Asaf Keller**
Univ. of Maryland, Baltimore
- David M. Keller***
Presbyterian Hospital of Dallas, TX
- Cynthia Jane Kenyon**
Univ. of California, San Francisco
- Sangho Kim**
Univ. of Florida
- Bela Kis**
Wake Forest Univ. Sch. of Med., NC
- Valery V. Kupriyanov**
Inst. of Biodiagnosics, NCR, Canada
- Eva L. Lacy**
Emory Univ., GA
- Gisela Lanning**
Univ. of North Carolina
- Nathan K. LeBrasseur***
Boston Univ., MA
- Stefan M. Lee**
Univ. of California, Los Angeles
- Biao Lei**
Brigham & Womens Hosp., MA
- Annarosa Leri**
New York Medical College, NY
- Hongwei Li**
Univ. of Florida
- Li Li***
Univ. of Alabama, Birmingham
- Peter Lindholm**
Center for Research & Education in
Special Education, Sweden
- Qinghang Liu***
Cincinnati Children's Hospital, OH
- Rong Liu**
Massachusetts General Hosp.
- William A. MacDonald**
Univ. of Aarhus, Denmark
- Shuichi Machida**
International Budo Univ., Japan
- Anthony D. Mahon**
Ball State Univ., IN
- Fatima Martel**
Faculty Medicine of Porto, Portugal
- Donna-Marie McCafferty**
Univ. of Calgary, Canada
- Isabella C. McMillen**
Univ. of Adelaide, Australia
- Cynthia J. Meininger**
Univ. of Texas A&M Univ.

- Luis Michea**
Univ. of Los Andes, Chile
- Carlos E. Milla**
Univ. of Minnesota, MN
- Paul C. Miller**
Elton Univ., NC
- Anna T. Moritz**
Univ. of Washington, Seattle
- Ulrich Mueller**
The Scripps Res. Inst., CA
- Nancy E. Muleady-Mecham**
Northern Arizona Univ., AZ
- Jame R. Munis**
Mayo Clinic, MN
- Yuji Naito**
Kyoto Prefectural Univ. of Medicine,
Japan
- Liomar A.A. Neves**
Wake Forest Univ. Sch of Med., NC
- Christopher B. Newgard**
Duke Univ., NC
- Heber C. Nielsen**
Tufts New England Med. Ctr., MA
- Nicola Perrotti**
Univ. of Magna Graecia
Di Catanzaro, Italy
- Ellengene H. Peterson**
Ohio Univ.
- Matthew J. Picklo**
Univ. of North Dakota
- Daniel North**
Univ. of Nebraska, NE
- Avvappan K. Rajasekaran**
Univ. of California, Los Angeles
- Timothy R.H. Regnault**
Univ. of Colorado Hlth. Sci. Ctr.
- Nancy R. Rodriguez**
Univ. of Connecticut
- Thad A. Rosenberger**
Univ. of North Dakota
- Eleni Roussa**
Univ. of Goettingen, Germany
- Mario A. Ruggero**
Northwestern Univ., IL
- Carl Y. Saab***
Brown Univ., RI
- Henning Schneider**
DePauw Univ., IN
- Pravin B. Sehgal**
New York Medical College
- Nawal K. Sharma**
Univ. of Pittsburgh Med. Ctr., PA
- Donnie E. Shifflett**
Univ. Illinois, Chicago
- Mark Shilkrut**
Technion-Israel Inst. Tech., Israel
- Scott M. Smith**
NASA Johnson Space Ctr., TX
- Anatoly I. Soloviev**
Inst. Pharmac. and Toxicol., Ukraine
- Jamie T. Stark**
Athletic & Therapeutic Inst., Joliet, IL
- Karen Y. Stokes**
Louisiana State Univ. HSC
- Vikram Sudarsan**
Stanford Univ., CA
- Gary Sweeny**
York Univ., Canada
- Kelly A. Tappenden**
Univ. of Illinois, Urbana-Champaign
- Jeffrey S. Taube**
Dartmouth College, NH
- Barbara E. Taylor**
Univ. of Alaska, Fairbanks
- Charles A. Taylor**
Stanford Univ., CA
- Florian E. Toegel**
Univ. of Utah
- Frank Tong**
Vanderbilt Univ., TN
- Karen S. Uray**
Univ. of Texas Med. Sch., Houston
- Renee F. Ventura-Clapier**
U-446 INSERM, France
- Trinity Vera**
Univ. of Mississippi
- Francois Verrey**
Univ. of Zurich Irchel, Switzerland
- James Versalovic**
Texas Children's Hosp., Houston
- David W. Walker**
Monash Univ., Clayton Campus,
Australia
- Chen Wang**
Vrije Univ. Brussel, Belgium
- Hai Wang**
Beijing Inst. of Pharmacol. &
Toxicol., China
- Jeanne Y. Wei**
Univ. of Arkansas
- John A. White**
Boston Univ., MA
- Todd D. Williams***
Emmanuel College, Boston, MA
- Michal S. Wojciechowski**
Nicolaus Copernicus Univ., Poland
- Jeffrey A. Woods**
Univ. of Illinois, Urbana
- Gary Leslie Wright**
Medical Univ. of South Carolina
- Mack H. Wu**
Univ. of California, Davis
- Xiangmin Xu**
Salk Inst. for Biological Studies, CA
- Shi Yu Yang**
Univ. College London, UK
- Jijian Zheng**
Univ. of Arkansas
- Yang Zhihong**
Univ. of Fribourg, Switzerland
- Machiel J. Zwart**
Radboud Univ. Nijmegen,
The Netherlands

New Student Members

- Anteneh Addisu**
Univ. of South Florida
- Zikiar Alvin**
Howard Univ., DC
- Robert Brothers**
Univ. of North Texas HSC
- Michael Campos**
California Inst. of Tech.
- Vanessa Castellano**
Univ. of Florida
- Shaowei Chen**
Tulane Univ., LA
- Roxanne Christie**
Howard Univ., DC
- Carl Coleman**
Univ. of Houston, TX
- Judy Creighton**
Univ. of South Alabama
- Nisa Dadjoo**
Univ. of Houston, TX
- Russell Davies**
Brunel Univ., UK
- Sabry Elnaggar**
Hollings Cancer Ctr., Charleston, SC
- Stephanie Evans**
Florida State Univ.
- Jorge Farias**
Univ. of Arturo Prat, Chile
- Zhuang Fzng**
Tulane Univ., LA
- P. Courtney Gain**
Univ. of Connecticut
- Frederick Gaskin**
Univ. of Missouri
- Nicholas Glatzer**
Tulane Univ., LA
- Jodie Haak**
Univ. of Iowa
- James Harris**
Auburn Univ., AL
- Gregory Henderson**
Univ. of California, Berkeley

Sarah Henes
East Carolina Univ., NC

Ellis Jensen
East Carolina Univ., NC

Nicole Jensky
Univ. of Southern California

Israel Kalu
Univ. of Lagos, Nigeria

Nicole Khalili
Univ. of California, Los Angeles

Dawson Kidgell
Deakin Univ., Australia

Robin Kindred
Howard Univ., DC

Michael Kueht
Univ. of Houston, TX

Youngil Lee
Univ. of Florida

Chunying Li
Univ. of Tennessee

Lymari Lopez-Dias
Univ. of Michigan

Kim Mackenzie
Univ. of Houston, TX

Daniel Mandel
Med. College of Georgia

Vera Maraes
Univ. of Evangelica, Brazil

Connie Mark
Univ. of South Dakota

Serina McEntire
Univ. of Texas Med. Branch

Waslon Metzger
Univ. of Med. & Dentistry, NJ

Ulla Mikkelsen
Univ. of Aarhus, Denmark

Sarah Mitchell
Univ. of Arizona

Stephanie Montmerle
Karolinska Inst., Sweden

Stella Nicolaou
Univ. of Cincinnati, OH

Lina Nordquist
Uppsala Univ., Sweden

Oladapo Odeyemi
Univ. of Lagos, Nigeria

Adetayo Odusanya
Univ. of Lagos, Nigeria

Mayokun Ogunbameru
Univ. of Lagos, Nigeria

Matthew Pamenter
Univ. of Toronto

Shivlal Pandey
Kathmandu Med. College, Nepal

Edgar Pelayo
Clin De Nuestra Senora del Rosario,
Mexico

Thomas Pellinger
Univ. of Oregon

Bernie Pletschet
California State Univ., Chico

Natasa Popovic
Texas A&M Univ.

Anabel Puig-Ramos
Univ. of Puerto Rico

Cole Quam
Univ. of Utah

Erion Qamirani
Texas A&M Univ.

Sitalakshmi Ramadoss
Sri Ramachandra Med. College &
Res., India

Vicky Rands
Tulane Univ., LA

Daniel Rathbun
Univ. of California, Davis

Alejandro Relling
Ohio State Univ.

Susan Roy
Morehead State Univ., Kentucky

Ibrahim Sanni
Univ. of Lagos, Nigeria

Hagit Schwimmer
The Hebrew Univ., Israel

Christiane Seddon
Univ. of Phoenix, AZ

Syed Semmal
Sri Ramachandra Med. College &
Res., India

Rany Shamloul
Univ. of Saskatchewan

Qiaoyun Shi
Tulane Univ., LA

Aimee Shrader
Florida Atlantic Univ.

Madhu Sirivelo
Michigan State Univ.

Jessica Snow
Univ. of New Mexico

Molly Sturman
Univ. of Illinois, Chicago

Joshua Swift
Texas A&M Univ.

Bryan Taylor
Brunel Univ., UK

Leyla Teos
Howard Univ., DC

Jaclyn TeRiele
Univ. of Vermont

Darla Tharp
Univ. of Missouri, Columbia

Claudia Torres-Pelletier
Univ. of California, Davis

Jason Treberg
Memorial Univ., Newfoundland

Kenneth Varian
Ohio State Univ.

Thomas Walker
Univ. of New Mexico

Emma Wallace
Medgar Evers College, NY

Amanda Waller
Univ. of Guelph, Canada

James Wampler
VA Polytechnic Inst. & State Univ.

Jennifer Wismann
Baylor Univ., TX

Mozow Yusof
Univ. of Missouri, Columbia

Xiaosun Zhou
Univ. of South Dakota

Wuqiang Zhu
Indiana Univ.

New Affiliate Members

Sarah A. Blank
Berea College, Kentucky

Emily Martini
Nike, Beaverton OR

Carey Paulin
Allegany College of Maryland

Recently Deceased Members

John H. Ashe
Riverside, CA

Roland A. Coulson
New Orleans, LA

Robert E. Dutton
York Beach, ME

Harold T. Hammel
Ellettsville, IN

Teru Hayashi
Woods Hole, MA

Frederick M. Liebman
Tuckahoe, NY

Joseph Meites
East Lansing, MI

Hisashi Sanui
El Cerrito, Ca

Harold J. Swan
Pasadena, CA

Louis D. Van de Kar
Maywood, IL

Wayne D. Van Huss
East Lansing, MI

Herman S. Wigodsky
San Antonio, TX

Introducing Gregory L. Florant

On January 1, 2005, **Gregory L. Florant** succeeded **Pamela J. Gunter-Smith** as Co-Chair of the Porter Physiology Development Committee. Florant has been a member of APS since 1979 and a member of the American Society for Nutritional Sciences since 1986. He has served on several APS committees and received an APS travel award in 1980. Florant has served as a reviewer for the *American Journal of Physiology-Regulatory, Integrative, and Comparative* section and is currently an associate editor for the journal *Physiological and Biochemical Zoology*.

Florant is a Professor in the Department of Biology at Colorado State University, Fort Collins, CO and also has a research affiliation with the Center for Human Nutrition (CNRU) at the University of Colorado Health Science Center. He received his bachelor's degree in physiology from Cornell University in Ithaca, NY and then went on to do his PhD at Stanford University (1973-1978) under the direction of **H. Craig Heller**. He did a NIH postdoctoral Fellowship with Elliot Weitzman (1978-1980) at Albert Einstein College of Medicine and Montifore Hospital and Medical Center in the Bronx, NY. His first academic position was an assistant professorship in the Biology Department at Swarthmore College where he was promoted to associate professor (1980-1990). In 1990, he moved as a full professor to the Biology Department at Temple University in Philadelphia, PA and remained there until 1995 at which time he moved to Colorado State as a full professor.

Florant was a Ford Foundation Fellow as a graduate student at Stanford University, and during his time at Swarthmore College, selected as one of six outstanding young investigators in Physiology by the Philadelphia Physiological Society. He received a DAAD Fellowship (1986-1987) to be a visiting scientist at the



Gregory L. Florant

University of Marburg, Germany, and he has twice been the recipient of Fulbright Research Fellowships (1983-1984; 2000-2001). He was elected an AAAS Fellow in 1989.

Florant's research focuses on the mechanisms that animals use to regulate energy stores under various environmental conditions. Specifically, his research has centered on using mammals that hibernate to investigate obesity, fat metabolism, and insulin regulation of energy stores. Florant's laboratory studies mammals that hibernate (e.g., marmots: genus *Marmota* and ground squirrels) and undergo a doubling of body mass in the form of fat. This weight gain is associated with a profound hyperinsulinemia, and marmots display all of the characteristics of peripheral insulin resistance. Before this insulin resistance develops into frank diabetes, however, the animals begin hibernation, where they have a suppressed appetite and rely almost exclusively on fat stores for energy. During this period, insulin resistance is apparently reversed, as the circulating insulin levels return to normal. None of the insulin signal transduction pathways have been evaluated

during the astonishing period of weight gain, nor have they been investigated during the animal's subsequent conversion into this lipolytic state. Research in Florant's laboratory is aimed at characterizing the effect of this rapid weight gain on insulin's ability to activate known signaling intermediates. Studies could uncover important information about the molecular events associated with the development of insulin resistance. Moreover, by correlating the concentration of fat-derived circulating factors (e.g., free fatty acids, leptin, diponectin, and resistin) with the degree of insulin resistance, the research might uncover novel information about the contribution of these factors to the pathogenesis of type II diabetes mellitus and obesity. Ultimately, the exaggerated characteristics of hibernators could assist us in the identification of abnormalities relevant to the human condition.

Florant's duties as Chair of the Porter Development committee include:

- supervising the administration of the Porter Physiology Development funds, including soliciting applications for the Porter Physiology Development Fellowship Awards and overseeing the review and selection of Porter Fellows.

- supervising the selection of NIDDK minority travel fellows.

- providing annual written reports to Council and the William Townsend Porter Foundation and soliciting outside funds for support of the program.

Over the next several years, the committee hopes to review and update its charge, increase the number of minority scientists entering academia, develop a mentorship program with senior faculty and researchers, and provide a network for fellows to communicate among themselves and younger beginning minority scientists. The committee will also work with other APS committees to increase the participation of minority and female physiologists within the APS. ❖

Introducing Lisa M. Harrison-Bernard

The Council of the APS accepted the recommendation of the Committee on Committees to appoint **Lisa M. Harrison-Bernard** to serve as Chair of the Membership Committee for a three-year term from January 1, 2005 through December 31, 2007. Harrison-Bernard succeeds **Rauf A. Khalil** in this position. Prior to becoming Chair, Harrison-Bernard was a member of the Membership Committee for two-years (2003-2004) and recently completed a three-year term as a member of the Women in Physiology Committee (1999-2001). She has been an active member of the APS since 1988, first joining as a graduate student. She serves as a member of the Editorial Boards of the *American Journal of Physiology: Heart and Circulatory Physiology* (2000-Present) and *Hypertension* (2004-Present). She has participated as a mentor for the APS NIDDK Minority Travel Fellowship since 2000.

Harrison-Bernard is an Associate Professor in the Department of Physiology at Louisiana State University Health Sciences Center (LSUHSC) in New Orleans, LA and an Adjunct Associate Professor in the Department of Physiology at Tulane University Health Sciences Center in New Orleans, LA. She received her doctoral degree in Physiology from Tulane University in New Orleans, LA in 1990 and continued with four years of postdoctoral training under the direction of **Pamela K. Carmines** and **L. Gabriel Navar**. She was appointed as an Instructor in the same department in 1994, and then as an Assistant Professor (1996) and Associate Professor (2003). She joined the Physiology department at LSUHSC in New Orleans on January 1, 2004. She has had continuous research funding as a principal investigator since 1991 from the National Kidney Foundation, NIH-NIDDK Individual National Research Service Award, Louisiana American Heart Association, National American Heart Association Scientific Development Grant and is currently funded by the NIH-NIDDK through an RO1 entitled "AT1 Receptors in Renal Microvascular Physiology."



Lisa M. Harrison-Bernard

Harrison-Bernard's integrative approach to the study of physiology encompasses assessment of whole animal cardiovascular and renal hemodynamics, direct assessment of renal microvascular function, and identification and regulation of multiple components of the renal renin-angiotensin system in a variety of hypertensive rat and transgenic mouse models. Her research over the past several years has focused on 1) assessment of the functional and molecular mechanisms linking the physiology of hypertension with the altered renal expression of critical components of the renin-angiotensin and kallikrein-kinin systems, and 2) direct assessment of vasoconstrictor and vasodilator control mechanisms on the pre- and post-glomerular renal microvasculature. Highlights of this work include the demonstration that the angiotensin type one (AT1) receptor is widely distributed throughout the vascular and tubular structures of the kidney, post-varietomy hypertension and diabetes are linked to increased renal AT1 receptor protein expression, glomerular AT1 receptor expression is down-regulated while proximal tubule receptor is unaltered in angiotensin II-dependent hypertension, and functional evidence for angiotensin II responses on afferent arterioles of the mouse being mediated by both AT1A and

AT1B receptor subtypes, while efferent arteriole responses are mediated only by the AT1A receptor subtype.

She has published 38 scientific papers and reviews in journals such as the *American Journal of Physiology*, *Hypertension*, *Journal of the American Society of Nephrology*, *Kidney International*, *Physiological Genomics*, and *Physiological Reviews*. Memberships are held in the American Heart Association Council on Kidney in Cardiovascular Disease, American Physiological Society, American Society of Nephrology, Fellow of the Council for High Blood Pressure Research, International Society of Nephrology, and Women in Nephrology professional societies. She is a Fellow of the American Heart Association (FAHA) and of the American Society of Nephrology (FASN). She received the 2004 American Society of Hypertension Young Scholars Award and presented a lecture entitled "Angiotensin II in the Regulation of the Renal Microvasculature: Lessons from Genetic Mouse Models" at the past American Society of Hypertension Annual Meeting. She currently serves on the American Heart Association Council on the Kidney and Cardiovascular Disease and Women in Nephrology Programming Committees.

As Chair of the Membership Committee, Harrison-Bernard will oversee the review of applications by the Membership Services Department for regular membership. Her goal is for the committee to identify innovative strategies to recruit new members to the Society and to retain regular members, with special emphasis on assuring that student members become regular members after obtaining their professional degree. The Membership Committee is also working toward increasing the visibility of APS members, which now total approximately 10,000, at the Experimental Biology meetings. The Membership Committee would be grateful for the efforts of all of our members in sponsoring and recruiting new members to the Society. ❖

Introducing Kim E. Barrett

On January 1, 2005, **Kim E. Barrett** succeeded **Dale Benos** as Chair of the Publications Committee, a position appointed by the APS leadership. Although she has not served previously on the Publications Committee, Barrett has had a long-standing interest and involvement in the Society's publications program. She was editor of *AJP-Cell Physiology* from 1996-2002, and remains a member of the editorial board of that journal, as well as of *AJP-GI and Liver Physiology*, and was able to keep abreast of publications matters during a recent three-year term as a member of the APS Council (2001-2004). She also now returns to Council as an *ex officio* member.



Kim E. Barrett

Barrett is a proud native of London, England, and received her undergraduate and graduate training there, receiving her PhD in Biological Chemistry from University College London in 1982. Her thesis work, under the supervision of **Fred Pearce**, elucidated aspects of the functional heterogeneity of mast cells from different organs and tissues, yielding information that was relevant to the understanding and treatment of allergic diseases. Wanting to broaden her horizons before settling into a permanent position in the UK, she came to the US for postdoctoral training in the laboratory of Dean Metcalfe at the National Institutes of Allergy and Infectious Diseases. However, despite her original plan to head home, she was seduced by an offer to join the laboratory of the late Kiertisin Dharmasathaphorn at the University of California, San Diego, and has been in sunny California ever since. Appointed initially as an Assistant Research Physiologist, she has risen steadily through the ranks to attain her current position of Professor of Medicine in 1996. In 1999, she was also appointed as Vice-Chair for Research in the Department of Medicine, and she has held a variety of additional leadership roles in the School of Medicine and in the university as a whole.

Barrett's current research program focuses on the physiology and pathophysiology of the intestinal epithelium, particularly with respect to its ability

to transport water and electrolytes, and to serve as an interface between external factors and the host immune system. She has mapped signaling pathways that regulate epithelial chloride secretion, both positively and negatively, focusing in recent years on the central role played by the epidermal growth factor receptor in this process. Another area of interest is in understanding the pathophysiological correlates of infection of the intestinal epithelium with invasive bacteria, studies that may help improve treatments for infectious diarrhea. In a related vein, Barrett's group is identifying mechanisms that may underpin the ability of so-called probiotic bacteria to exert beneficial effects in a variety of intestinal diseases. Finally, she is studying how defects in intestinal barrier function may promote bowel inflammation and, thus, lead to diseases such as ulcerative colitis, as well as the role of sex steroids in mediating gender differences in the severity of intestinal injury. Barrett's research program has been funded continuously by the NIH, and she has also enjoyed support from the Crohn's and Colitis Foundation of America.

The Publications Committee is charged with oversight of all aspects of the Society's publication program. The committee reviews journal progress, selects new editors for each of the Society's journals, resolves ethical issues that arise during the editorial process, and recommends overall

strategies for the Society's publishing ventures to the APS Council. Given the central role played by the vitality of the publications program in the financial situation of the APS, the committee's charge is pivotally important to the well-being of the APS as a whole. Barrett also takes the helm of the Publications Committee at a particularly challenging time, as society publishers such as the APS are being forced to evolve new models for journal financing given outside efforts to promote "open access" and "author pays" modes of publication. The APS has been at the forefront of national efforts to underscore the value added to scientific publications by scholarly societies, particularly through the leadership of APS Executive Director Martin Frank and Director of Publications Margaret Reich. Barrett looks forward to working for this cause along with the Publications Committee and getting the message out to colleagues about the real costs of sustaining a first class publications program that publishes truly innovative physiological science.

Barrett's goals in her new position are to sustain the enviable position and reputation of the Society's publications programs, to establish a dialogue with key stakeholders (editors, authors and readers) as to what can be done to further enhance the visibility and prestige of physiology as a discipline (particularly as embodied in research published in the APS journals) and to serve as a resource for editors and their staff. She also hopes to provide considered input to the APS Council on behalf of the committee as the Society leadership develops a new strategic plan that will guide APS programs in the next five to 10 years. Finally, she would like to continue outreach to more junior members of the APS by providing them with the tools and insights they need to become successful authors and reviewers for APS journals. She is eager to hear from the membership as to how the publications program can better serve them, and invites them to contact her with their thoughts. ❖

Introducing Patricia Molina

On January 1, 2005, **Patricia Molina** succeeded **Hector Rasgado-Flores** as chair of the International Committee of the APS. Molina is Professor of Physiology at Louisiana State University Health Sciences Center, New Orleans, LA. Molina received her BS in Biology and MD degrees in Guatemala from the Universidad Francisco Marroquin. Following completion of her medical training, Molina joined the graduate program in Physiology at the University of South Alabama in Mobile, transferring after completing her first year of coursework to the Department of Physiology at LSU in the summer of 1987. Molina received her PhD degree in Physiology in 1990 from LSU under the combined mentorship of **John J. Spitzer**, **Charles H. Lang** and **Gregory J. Bagby**. Her research focused on the impact of acute alcohol intoxication on carbohydrate metabolism, particularly in response to lipopolysaccharide challenge. From 1990 to 1992 Molina was a research instructor in **Naji N. Abumrad's** laboratory in the Division of Surgical Research at Vanderbilt University. Her work expanded into the field of protein metabolism and its regulation during stress. Molina joined the faculty of the Department of Surgery at the State University of New York, Stony Brook in 1992 where she progressed from assistant professor to associate professor and established her research interest in neuroendocrine modulation of counter-regulatory responses to traumatic injury. After a short tenure at North Shore University Hospital and Brookhaven National Laboratory, she returned to New Orleans to join the faculty of the Department of Physiology in 1999. She was promoted to professor in 2004.

Current research in her laboratory is focused on neural control of hemorrhage-induced tissue cytokine production and how acute alcohol intoxication impacts on the hemodynamic and inflammatory responses to shock. In addition, since returning to LSUHSC, Molina has interacted with scientists at the Alcohol Research Center and developed research interests on the



Patricia Molina

impact of chronic alcohol intake on the course and progression of AIDS-associated muscle wasting. Joining the faculty at LSUHSC has allowed Molina to contribute to the teaching of physiology to medical and graduate students, particularly the area of endocrine physiology. Her teaching interests in this area led to the publication in 2003 of *Endocrine Physiology*, a McGraw-Hill Lange series monograph that follows the learning objectives of the APS and is directed at medical students and residents. In parallel to Molina's growth in her academic career, she has actively participated in several APS-related activities, most notable as Councillor for the Endocrine section and as member of the International subcommittee of APS. As part of her interest in developing and fostering scientific interactions with Latin American countries, Molina was successful in organizing and conducting a two day meeting in Guatemala in November 2003 entitled: "Advances in Physiology; Impact on our Understanding of Health and Disease." The success of the meeting relied on the active participation of APS members from LSUHSC in New Orleans and Shreveport, as well as Tulane Physiology Departments and on the enthusiastic support received from the Facultad de Medicina, Universidad Francisco Marroquin. This activity, funded through the Latin American Initiative of the APS, was a clear, demonstrable, example of the powerful impact that APS

researchers and teachers can have in bringing physiological sciences closer to the Latin American students, teachers, and researchers.

The International Physiology Committee is responsible for establishing communication and facilitating interchange between the APS, other physiological societies, and their individual members (maintaining and strengthening relations with IUPS). Among its functions are to encourage the formation of international interest groups to promote scientific interactions in particular geographic areas. To maximize success, the Latin American geographical area was selected as the focused target for most of the activities under the International committee. In this effort, the committee seeks to develop mechanisms for promoting interactions and exchanges of APS members and Latin American scientists. One of the approaches that has shown success is the organized symposia and/or workshops bringing high caliber scientists to Latin America with the goal of fostering their interest in the physiological sciences. Current political stability in several Latin American countries has brought forth a renewed interest in the growth and development of the academic capacity of students and faculty throughout the region. The pursuit of knowledge and establishment of collaborative agreements, as well as the advantages of improved communications systems with the availability of on line journals and constant access to information, has allowed science to enter regions previously isolated from scientific progress. Several newly instituted medical schools and research institutes are now searching for the appropriate ties and collaborative agreements that will allow them to move their initiatives forward. From curriculum revisions, to implementation of experimental laboratories, now more than ever the expertise of APS members is widely sought and needed by these developing countries. Members of APS serve as bridges for several Latin American initiatives with the scientific community here in the United States, as well as in the

European and Asian continent. During the tenure of **Rasgado-Flores** as chair of this committee, much progress was made towards bringing physiologists in Latin America closer to members of APS. The innovative approach of the committee culminated

in funding of Latin American attendees to the upcoming IUPS with the goal of using the opportunity to build stronger relations with our neighboring scientists. My goal is to stimulate creative and innovative thinking among the committee members to

encourage greater participation both by members of APS and Latin American colleagues to ensure full appreciation and utilization of resources and opportunities to strengthen the physiological sciences throughout the region. ❖

Introducing Chahrzad Montrose-Rafizadeh

On January 1, 2005, **Chahrzad Montrose-Rafizadeh** succeeded **Glenn Reinhardt** as Chair of Liaison With Industry Committee (LWIC). Prior to becoming Chair, Chahrzad Montrose was a LWIC Committee member for the last three years representing the Cellular and Molecular Physiology Section. Chahrzad Montrose has organized and chaired numerous symposiums sponsored by LWIC over the last two years.

Chahrzad is a Research Advisor at Eli Lilly and Company in Indianapolis, IN. She received her doctoral degree in 1988 from University of Lausanne, at the Institute of Pharmacology, Lausanne, Switzerland, where she studied mechanisms of organic cation transporters function across kidney tubules. She then completed a three-year postdoctoral fellowship sponsored by the National Kidney Foundation at John Hopkins University, where she studied the molecular biology and function of ion channels involved in kidney disease and in cystic fibrosis. In 1991, she joined the Diabetes Section of National Institute on Aging in Baltimore as Senior Staff focusing on molecular mechanisms of glucose homeostasis. At NIH, she has played a pioneering role in the understanding of Glucagon-Like Peptide-1 mechanisms of action in pancreas. She moved to Eli Lilly and Company in 1998, working on nuclear hormone regulation of genes. At Lilly, she has contributed to drug discovery research



Chahrzad Montrose-Rafizadeh

in the field of Diabetes, Obesity, Cardiovascular and Osteoporosis. Her current research interest is in the development of nuclear hormone receptor modulators for a number of therapeutic indications. She has led the effort to improve the quality of hits, leads, and clinical candidates by formulating assay development and validation guidelines. These guidelines are currently being incorporated in an NIH Roadmap of Molecular Libraries Initiative for National Human Genome Research Institute.

LWIC is committed to continue enhancing interactions between Industry scientists and APS, raising the profile and participation of Industry scientists to APS as new members and/or as new APS committee members. LWIC is poised to bring

further understanding of innovation in science conducted in Industry by sponsoring symposiums at EB meetings and fostering scientific presentations by scientists from industry and academia. Another goal for the LWIC committee is to enhance the understanding of drug discovery and drug development processes by Industry, educating interested academic scientists on the processes used in drug discovery, from the basic science of target identification and validation through various mechanisms including high content biology/system biology, through the use of quantitative biology, in vivo pharmacology, and clinical physiology to discover and validate leads. To this end, LWIC would like to partner with the Education committee to plan these educational sessions at the EB meetings. Similarly, LWIC has a goal of interacting closely with the Career committee to solve common issues around defining and advancing careers in physiology. This includes helping students in the physiological sciences understand the potential of developing a career in science in the industrial sector. By partnering with the Career committee, LWIC would like to bring forward these educational sessions. LWIC will hope to be a voice for APS in the industrial sector, and will seek avenues to bring a better understanding to the scientists in industry of the APS's goals and roles in physiological sciences and education. ❖

NIH Announces Voluntary Public Access Program

On February 3, 2005, the NIH announced a new policy (NOT-OD-05-022) to enhance public access to publications resulting from NIH-funded research. The policy and background information are available at <http://www.nih.gov/about/publicaccess/index.htm>.

The policy establishes a voluntary program in which funded investigators will be asked submit to the National Library of Medicine's PubMed Central (PMC) an electronic copy of the author's final manuscript of articles based upon NIH-funded research. The policy will go into effect on May 2, 2005 and will apply only to primary research articles based upon NIH-funded research that have been accepted for publication in peer reviewed journals after that date. The purpose of the policy is to create a permanent archive of NIH funded research that can be used to improve portfolio management. Once in the archive, however, manuscripts will be made accessible to the public 12 months after publication, or sooner if the author agrees. It is the access provision of the policy that has provoked controversy.

Despite NIH claims to the contrary, its new policy has copyright implications. Although copyright practices differ among publishers, when articles are accepted for publication in an APS journal, authors (unless they are government employees) assign their copyright interest to the journal. This means that the author grants the journal exclusive publication rights in exchange for the services the journal has provided to peer review, copy edit, format, publish, and disseminate the article. Acquiring exclusive publication rights permits the journal to sell the article and thus recover its investment in the article. This arrangement has shown to be an effective way to ensure rapid dissemination of high quality peer reviewed research.

Once copyright transfer has taken place, the NIH must have the permission of the journal as copyright holder to disseminate the manuscript. It

should be noted that the APS and many other not-for-profit publishers already provide free public access to their content after 12 months or whatever period of subscription sales makes it possible to recoup publication related costs. The APS does not believe that the NIH Policy offers better public access than what the Society already provides. Moreover, since half the manuscripts APS publishes could be subject to the policy, the Society is justifiably concerned about the potential financial implications for its journals.

Nevertheless, the APS has decided to modify its copyright agreement to grant NIH-funded authors permission to submit their manuscripts to PMC for public dissemination after 12 months. Providing access after 12 months is consistent with the existing APS free public access policy and would enable authors to comply with the funding agency's request without violating their copyright agreement with the journal.

Since the policy was announced, questions have arisen about whether or not participation is truly voluntary. On the day the policy was published, NIH Director Elias Zerhouni sent a letter to all extramural scientists and their research institutions describing the policy and urging them to participate. Although Zerhouni stated that the policy is a request, many researchers as well as university offices of sponsored programs and even some NIH program officers have interpreted it as a mandate for grantees. However, in public statements, Zerhouni and other NIH officials have repeatedly underscored that it is voluntary and there will be no repercussions for those who choose not to participate. Funded investigators can still fulfill their progress report requirements by providing print copies of their publications with their annual progress reports.

The APS has been at the forefront of online publishing. The Society began putting its journal content online as early as 1994 and developed one of the first online manuscript submission and review systems. The APS has also underwritten the scanning of its journal content back to 1898 and was an early adopter of the policy of making

all final content freely accessible to the public 12 months after publication. These were costly efforts that the Society undertook to enhance access to physiological research in the Internet age. Although the APS still has reservations about the NIH approach to public access, if authors who choose to participate would select public access after 12 months as specified in the revised copyright agreement, this will fulfill NIH's request while still protecting the viability of the APS journals.

FY 2006 Research Budgets

On February 8, 2005, the administration submitted its FY 2006 budget requests to Congress. Below is a summary of the proposed funding for the National Institutes of Health (NIH), National Science Foundation (NSF), Veterans Affairs (VA) and National Aeronautics and Space Administration (NASA).

FY 2006 is the third consecutive year in which lawmakers will try to keep non-defense discretionary spending flat in order to restrain rising deficits, and this is reflected in the proposed budgets for federal science agencies. The current budget season not only promises tight budgets, but also a potentially more complex approval process in Congress. Appropriations Subcommittees have reorganized in both houses of Congress, placing the NSF, NASA and VA in new subcommittees for funding allocation. Although both the House and Senate have reduced the number of subcommittees, the configuration of subcommittee responsibilities are no longer the same, and this has the potential to complicate approval of individual funding bills.

The National Institutes of Health

For the second year in a row, the proposed NIH's budget increase fails to keep pace with the rate of biomedical research inflation index, which is currently 3.3%. For FY 2006, the NIH is slated to receive an increase of \$196 million, which would increase its budget by 0.7% to \$28.845 billion.

Of that increase, \$50 million is des-

ignated for research into biological and chemical countermeasures as part of the Public Health and Social Services Emergency Fund. This would leave only \$146 million for the rest of NIH, an overall increase of just 0.5%. This increase is well below the \$30.07 billion recommended by FASEB and other research advocacy groups. If enacted, it would result in 402 fewer research project grants (RPGs) in 2006. Most individual institutes and centers can expect a budget increase of 0.3-0.7%. The largest percentage increase would go to the Office of the Director, which would receive 7.6% increase of \$27 million over its FY 2005 of \$358 million to fund high-risk basic research and the NIH Roadmap.

In the current environment, prospects for NIH are grim because although the NIH continues to be a priority for some in Congress, others on Capitol Hill say they want to see the results of a doubled NIH budget along with increased transparency from an agency plagued with negative reports about conflict of interest.

The National Science Foundation

On the heels of a budget cut in FY 2005, the administration's proposal for NSF would give the agency a 2.4% increase to \$5.61 billion. However, this sum still falls below NSF's FY 2004 funding and is short of the FASEB recommendation of \$6.4 billion. The NSF budget is also subject to a \$48 million transfer to the US Coast Guard to cover the cost of icebreakers to provide access to NSF facilities in Antarctica.

Within the NSF, Research and Related Activities will receive an increase of 2.7%, with the Biological Sciences Directorate receiving an increase of 0.9%. The grant funding success rate is expected to remain steady at approximately 21%, down from 30% in the late 1990's. NSF Director Arden Bement plans to increase success rates while maintaining grant size and duration by sharply focusing solicitations for proposals, which will have the effect of attracting fewer applicants. Education and Human Resources will be cut by a proposed 12.4% overall, with a 24% reduction in the Math and Science Partnership Program and 12% cut in

undergraduate programs. While some of these programs have received increases within the Department of Education, attention in Congress has focused on finding a way to maintain these exemplary education programs at the NSF.

Department of Veterans Affairs

The recommended funding level total VA R&D budget is up slightly in FY 2006 to \$786 million, an increase of 0.3%. This represents a proposed consolidation of accounts, and thus is not comparable to the Medical and Prosthetic Research Account for FY 2005. Of the \$786 million, \$452 million would be designated for biomedical laboratory science and is intended for investigator-initiated research projects.

National Aeronautics and Space Administration

The FY 2006 budget proposal includes a 2.4% increase in the overall NASA budget to \$16.456 billion. The recent NASA reorganization created the Human Systems Research and Technology theme (HSR&T), which has a proposed budget of \$806.4 million. This represents a 20% decrease over FY 2005 levels. The new HSR&T theme focuses on ensuring the health and safety of humans in the course of solar system exploration, with an emphasis on advancing knowledge and technology necessary to support human survival and performance in space. Included in this theme are physiology-based initiatives exploring bone, cardiovascular, and renal function.

NIH Issues Conflict of Interest Rules for Intramural Scientists

On February 1, 2005, the Department of Health and Human Services (HHS) issued an Interim Final Rule on ethical conduct and financial disclosure requirements for employees of the Department of HHS, including those at the NIH. These new regulations are primarily intended to restore public trust in the wake of address the recent widely publicized

accusations of conflict of interest issues involving senior NIH scientists at the National Institutes of Health (NIH). Under pressure from Congress, NIH director Dr. Elias Zerhouni issued sweeping reforms that broadly limit NIH employees with respect to their financial holdings and outside activities.

The APS understands the need for an organization such as the NIH to have ethics rules that serve to protect the integrity of this important research institution. Rules concerning conflict of interest must protect the public, NIH employees and the integrity of the science they produce. At the same time, the rules should not be so onerous as to deter government service, or to restrict participation of government employees in research activities sponsored by universities and scientific societies. The rules cover three broad areas: outside activities, financial holdings, and awards.

Outside Activities

The new regulations have prompted considerable uncertainty in the scientific community, and there are concerns about how NIH investigators will maintain meaningful relationships with non-NIH scientists and professional organizations.

Under the new conflict of interest rules, NIH employees are prohibited from compensated or uncompensated consulting, teaching, speaking, editing and writing for an outside organization. Outside organizations include pharmaceutical and biotechnology companies, health care providers and insurers, educational institutions that receive NIH funds and trade and professional organizations.

Ethics officials at NIH have indicated that scientists will be allowed to maintain interactions with their scientific societies if they obtain exceptions on a case-by-case basis. The NIH anticipates that many of these activities will be excepted/exempted from the rules based on byon being classified their classification as part of an employee's official duties. Employees will still be required to seek approval from ethics officials for each such activity, and anything performed as an official duty will be ineligible for compensation. Examples include

activities such as speaking about their research, teaching as part of a course, editing for their society's journal, and writing book chapters. In certain cases, an employee's interaction with a society may be considered an outside activity instead of an official duty. For example, as part of an NIH employee's official duties, they may not hold a leadership position that where they would have requires fiduciary responsibility to a scientific society. However, the NIH employee may might still be able to hold that position if it is were approved as an outside activity.

Financial holdings and awards

In addition to limiting outside interactions, the conflict of interest rules also impose restrictions on employees' financial holdings and awards they are allowed to accept. Under the new regulations, senior employees are no longer allowed to own stock in "substantially affected organizations," such as pharmaceutical companies. Non-senior employees are limited to \$15,000 worth of stock in such companies. Employees are required to divest any prohibited financial holdings within 150 days of the rules taking effect.

Newly imposed restrictions on awards include a ban on senior scientists accepting any award worth more than \$200, and require case-by-case approval for acceptance of all awards. Awards are subject to a two-step approval process. The first step evaluates the award and certifies that it is a bona fide award for meritorious service. The second compares the individual award recipient's job description with the award to ensure that there is no potential conflict.

The impact of the rules

Prior to the new conflict of interest rules being issued, the NIH did have ethics rules in place. It appears now that the existing system was inadequate to protect the integrity of the institution. While the new rules are meant to delineate what is known as a

"bright line" to prevent even the appearance of conflict of interest, it will be critical to evaluate how the rules affect the NIH. With new restrictions on outside activities, awards and financial holdings, it is possible that retention and recruitment at the NIH will be negatively impacted.

The Interim Final Rule was published in the Federal Register on February 3, 2005 with a 60-day window for comments to be submitted. The APS will submit comments strongly urging the exemption of scientific societies from the conflict of interest rules.

It is important to note that while the regulations issued on February 1 apply only to intramural NIH employees, there have been calls to extend similar policies to NIH reviewers and grantees in the future. Members of the House of Representatives Government Reform Committee have written to NIH raising concerns about controlling conflicts of interest for grant recipients and reviewers. NIH Director Zerhouni has indicated that conflict of interest in the extramural community is an issue that needs to be addressed.

The complete rule and related documents are available at: http://www.nih.gov/about/ethics_COI.htm.

USDA to Phase in E-FOIA Inspection Reports

The USDA's Animal and Plant Health Inspection Service (APHIS) announced that as of March 15 it would resume the posting of "regularly requested" Animal Welfare Act (AWA) inspection reports to its web site under the Electronic Freedom of Information Act or E-FOIA. The USDA's previous effort to post these reports under E-FOIA was begun in late 2001 and suspended in early 2002. Research facilities were concerned that this posed a security risk

because some reports included identifying information about research personnel and locations where animals were housed or procedures conducted. The Justice Department subsequently reviewed USDA's E-FOIA policies in terms of both the government-wide FOIA requirements and the threat posed by disclosing information that animal rights extremists could use to plot attacks against research facilities. In January it was decided that the online posting of inspection reports should resume.

The USDA inspects research facilities, zoos, circuses, breeders, and dealers of animals whose use is regulated under the AWA. Animal activist organizations often request FOIA inspection documents to determine whether these facilities are in compliance with the AWA and to obtain information about the use of the animals. Even before the implementation of E-FOIA, these inspection reports were available upon written request.

In an Email message to stakeholders, APHIS Deputy Administrator for Animal Care Chester Gipson indicated that the agency intends to review every inspection report to ensure that personal and confidential information is removed. This is expected to include the redaction of identifying information such as the names of individuals and where animals are housed or procedures are conducted. APHIS is also developing a new database that will enable the APHIS FOIA staff to review and redact information electronically, but it is not expected to be fully operational until FY 2006.

"While initially only regularly requested reports will be accessible, the goal is to eventually make all inspection reports available," Gipson said in his message.

Due to the potential threat from extremists remains if sensitive information is disclosed, research institutions are encouraged to obtain a copy of their own inspection report through E-FOIA to verify what it contains. ❖

Principles of Gender-Specific Medicine, Vol. 1 & Vol. 2

Marianne J. Legato (Editor)
New York: Elsevier Acad. Press, 2004,
1396 pp., illus., index, \$279.95
ISBN:0-12-4409059.

Until late into the 20th century, except for reproductive function, human physiology was defined in terms of the “typical 70 kg man.” Exclusion of female animals from basic science studies or women from clinical trials was justified by the rationale that ovarian cyclicity complicated the data and increased expense of the study. However, this view of human physiology changed with the Government Accounting Office audit of the National Institute’s of Health policy for inclusion of women in clinical trials (2). A series of governmental and activist initiatives culminated in a report by the Institute of Medicine (IOM) in 2001, “Exploring the Biological Contribution to Human Health: Does Sex Matter?” This IOM report concluded that sex does matter in prevention, diagnosis and treatment of disease and those barriers to the advancement of knowledge about sex differences in normal physiology and disease must be eliminated (3).

Eliminating barriers in medical knowledge requires changes in the teaching of physiology. Teaching materials must be developed and revised to incorporate new concepts of sex-based physiology/medicine. To that end, the two-volume set edited by Marianne Legato, brings together experts to review the current state of knowledge about sex-based differences in systems

medicine. The choice of the “Gender-Specific” rather than “Sex-based” medicine for the title is unfortunate in that conventions developed by the Office of Women’s Health Research suggest that the term “gender” be used to describe how an individual perceives their interaction in the world, while “sex” is used to define the genotype of XX or XY chromosome. The text addresses sex-based differences.

Authors of each chapter are well-respected clinician-scientists who are building the discipline of sex-based medicine. Because most of the authors come from a medical background, each chapter represents more of a review of the current clinical literature than basic physiological principles causal to the differences (i.e., molecular and cellular actions of sex steroids on various tissue and processes). The layout of the text follows a system approach. However, not all chapters are of equal depth or are all topics covered to the same extent. This uneven representation of some systems is to be expected as sex-based medicine is an evolving discipline and not all systems have attracted the same enthusiasm of research investment. For example, chapters of bone/osteoporosis have a substantial background of basic research while those related to dermatology are categorized as an area for future development. Chapters on cardiovascular disease reflect the editor’s expertise and focus on cardiology and coronary artery disease. Sections on pulmonary hypertension and reproductive function are excellent and provide detail not usually included in traditional medical texts.

Most chapters lack diagrams that could be adapted for the classroom or

didactic teaching materials at the undergraduate or graduate level as are provided in other less comprehensive texts on sex-based physiology [see (1)]. However, as medicine moves to a more individual approach of genomics for prevention, diagnostic and treatment of disease, principles of sex-based medicine must be incorporated into teaching materials at all levels of science (K-12, undergraduate, graduate, post-graduate). Until the day comes when principles of sex-based differences become a natural part of how physiology is researched and taught, texts such as these volumes edited by Legato make perfect companion materials to traditional physiology texts for graduate and post-graduate students of physiology. ❖

References:

1. Bittar, EE, series ed. *Principles of Sex-Based Differences in Physiology*. Volume 34: *Advances in Molecular and Cell Biology*. 2004. Elsevier Publishing Company.
2. Marts, SA and Keitt, S. Foreword: A historical overview of advocacy for research in sex-based biology. In: *Principles of Sex-Based Differences in Physiology*, Miller VM and Hay M (eds). Volume 34: *Advances in Molecular and Cell Biology* (Bittar EE, series ed). Elsevier Publishing Company, 2004, p. v-xiii.
3. Wizemann, TM and Pardue, M-L, eds. *Exploring the Biological Contributions to Human Health: Does Sex Matter?* 2001. Board on Health Sciences Policy. Institute of Medicine, Washington, DC.

Virginia M. Miller
Mayo Clinic College of Medicine

Lake Cumberland Biological Transport Group Meeting

Make plans to attend the 2005 Lake Cumberland Biological Transport group Meeting (affiliated with APS). The theme is focused on biological transport systems and/or mechanisms. Presentations from all related areas are welcome. The meeting provides an outstanding forum for principal investigators, postdoctoral fellows, and graduate students alike to present data and get feedback. Scientific sessions are scheduled Sunday evening June 19, through Wednesday

morning, June 22, with afternoons free for informal interactions that allow all to enjoy the many amenities available in the picturesque setting provided by the Lake Cumberland State Resort Park in Jamestown, KY. Further details can be obtained at the meeting web site (<http://iupucbio1.iupui.edu/cumberland/>).

Contact: Sne ana Petrovic, Meeting Chair, Assistant Professor, Division of Nephrology and Hypertension, University of Cincinnati, College

of Medicine, PO BOX 670 585, Cincinnati, OH 45267-0585, Tel.: 513-861-3100 x4440, Fax: 513-475-6415, Email: snezana.petrovic@med.va.gov or Donald B. Thomason, Vice Vice chair, Associate Professor, Department of Physiology College of Medicine, University of Tennessee, Health Science Center, 894 Union Ave, Memphis, TN 38163, Tel.: 901-448-7224, Fax: 901-448-7126, Email: is.thomason@physio1.utmem.edu or dthomas@utmem.edu. ❖

Nutritional Aspects of Osteoporosis, 2nd Edition

Peter Burckhardt, Bess Dawson-Hughes and Robert P. Heaney, editors. Elsevier, Acad. Press, 2004, 458 pp, illus., index, \$99.95. ISBN: 0-12141704-2.

This book contains the proceedings of the fifth international symposium of nutritional aspects of osteoporosis. As a result, many of the 32 chapters deal with very specific topics that might not otherwise be discussed in separate chapters. The editors are aware of this and tried to classify individual chapters under such general rubrics as *Vitamins*, *Flavonoids*, or *Nutrition and Bone Health Miscellaneous*.

Nevertheless, the general reader searching for a systematic approach to nutrition and osteoporosis may experience frustration when looking for established information. One example of the kind of specialized information is a paper that shows that dietary supplementation of boys and girls with calcium carbonate led to higher levels of the insulin-like growth factor (IGF-1), but it is not clear whether that rise was the cause or the result of a previously reported increase in bone mineral content. Another paper reports that an increase in dietary protein and energy each independently increased bone mass in sedentary girls, but not in gymnasts. These are but two examples of the type of information that would deserve a sentence or a paragraph, but not a chapter in a book that

would deal with the general relationship between nutrition and osteoporosis. Yet, the book contains chapters of interest. For example, six chapters deal with vitamin D from a fairly broad viewpoint, with the seventh reporting a general consensus to raise the recommended vitamin D intake to between 800 and 1000 IU per day per person so as to reach the optimum plasma level of 80 nmol/L of 25(OH)D. Other chapters deal with the vexing problem of the effect of acid-base balance on mineral metabolism and bone mass. The book is well produced, moderately priced, and will interest specialists in the field. ❖

Felix Bronner
Univ. of Connecticut Health Center

Books Received

Gravity and the Behavior of Unicellular Organisms.

Donat-Peter Hader, Ruth Hemmersbach, and Michael Lebert. New York: Cambridge Univ. Press, 2005, 258 pp., illus., index, \$95.00. ISBN: 0-521-82052-9.

Methods in Insect Sensory Neuroscience.

Thomas A. Christensen, (Editor). Boca Raton, FL: CRC Press I LLC, 2005, 435 pp., illus., index, \$139.95. ISBN: 0-8493-2024-0.

Motor Cortex in Voluntary Movements: A Distribution System For Distributed Functions.

Alexa Riehle and Eilon Vaadia, (Editors).

Boca Raton, FL: CRC Press I LLC, 2005, 426 pp., illus., index, \$139.95. ISBN: 0-8493-1287-6.

Oxygen Uptake Kinetics in Sport, Exercise and Medicine.

Andrew M. Jones and David C. Poole, (Editors).

Basingstoke, Hampshire, UK: Routledge Taylor & Francis Group, 2005, 405 pp., illus., index, \$46.38. ISBN: 0-415-30561-6.

Pathological Pain: From Molecular To Clinical Aspects.

Novartis Foundation Symposium 261. Hoboken, NJ: John Wiley & Sons, Ltd., 2004, 271 pp., illus., index, \$135.00. ISBN: 0-470-86910-0.

The Scientific Basis of Integrative Medicine.

Leonard A. Wisneski and Lucy Anderson.

Boca Raton, FL: CRC Press I LLC, 2005, 279 pp., illus., index, \$89.95. ISBN: 0-8493-2081-X.

Shu Chien: Tributes on His 70th Birthday.

Lamping Amy Sung and Kuang-Chung Hu Chien, (Editors).

Hackensack, NJ: World Scientific Publishing Co, 2004, 573 pp., illus., index, \$103.00. ISBN: 981-238-383-2.

Meredith Hay Named University of Iowa Vice President For Research



Meredith Hay, assistant to the vice president for academic affairs at the University of Missouri System, has been named the new vice

president for research at the University of Iowa.

"We look forward to Professor Hay joining our team," said **David Skorton**, UI president, who held the vice president for research position before assuming the presidency in 2003. "She has an outstanding combination of experiences in performing, overseeing and advocating research that will make the University of Iowa's research program even stronger."

Hay is a faculty member in the School of Medicine of the University of Missouri and is a past associate director for research at the University of Missouri Nuclear Research Reactor.

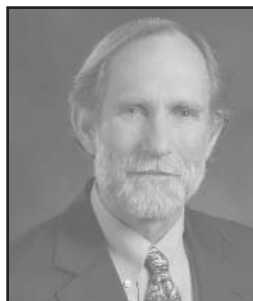
"Professor Hay can help move the University of Iowa forward," said Leslie Schwalm, associate professor of history and search committee member. "She will be a dynamic, skilled and responsive leader who brings a deep commitment to the most inclusive vision of university research."

While at Missouri, Hay established such large interdisciplinary teams as the Center for Gender Physiology and the University of Missouri Homeland Security Task Force Initiative.

As a researcher, Hay is internationally known for her work on the understanding of central nervous system mechanisms regulating blood pressure. She is currently responsible for over \$2.4 million per year in external funding and is leading a multi-investigator grant from NASA to study sex differences in disease and physiology. She is also principal investigator or co-investigator on awards from the National Institutes of Health and the National Science Foundation.

The vice president for research provides the central leadership to the university's research, scholarly and creative programs and reports directly to the president. Working collaboratively with faculty, staff and students, the vice president for research champions and facilitates research, scholarship and creative activity; strengthens relationships with public and private agencies that support research and other scholarly endeavors; assures the integrity of the research enterprise; advances the role of the university in economic development and technology transfer; and oversees the formulation and implementation of research-specific policies related to regulatory compliance, research integrity and intellectual property management.

Peter C. Agre to Join Duke University Medical Center as Vice Chancellor for Science and Technology



Peter C. Agre, winner of the 2003 Nobel Prize in Chemistry, will join Duke University Medical Center in July 2005 as vice chancellor for

science and technology.

In this newly created leadership post, Agre will help guide the development of Duke's biomedical research enterprise in ways that will further enhance its efforts to support and attract the world's top scientists and students. In addition, Agre will lead an effort to assess health care needs on a global scale, and ensure that Duke's research programs are positioned to address those needs.

Agre's appointment was announced by **Victor J. Dzau**, chancellor for health affairs at Duke and president and CEO of the Duke University Health System.

"Peter is one of the most accomplished physician-scientists of our

era," said Dzau. "But he is even further distinguished by his passion to improve the lives of people throughout the world. His interests span not only science and medicine, but also human rights and the education of children in math and science. His world view is perfectly matched to Duke's aspirations, and we are delighted that he will help us shape the future of this institution and medicine worldwide."

In his role as vice chancellor for science and technology, Agre will work closely with the chancellor for health affairs, the deans of the medical and nursing schools, and with the faculty to develop strategies for the future direction of science as well as the opportunities that will be enabled by rapidly evolving technologies.

"After many years as a bench scientist, I've become increasingly interested in contributing to science in a broader way," said Agre. "The work I'm about to begin at Duke will help to shape the next generation of scientists, who will determine whether our nation will continue to lead the world in science and medicine."

In 2003, Agre shared the Nobel Prize in Chemistry for revealing the molecular basis for the movement of water into and out of cells. His 1992 paper in the journal *Science*, with Johns Hopkins physiologist Bill Guggino, documented the discovery of the first water-channel protein—called an aquaporin—which facilitates the movement of water molecules into and out of cells through the cell membrane. Since then, Agre and his colleagues have found aquaporins to be part of the blood-brain barrier and also associated with water transport in skeletal muscle, lung and kidney. Researchers worldwide now study aquaporins, and have linked aberrant water transport to many human disorders.

One of the issues Agre says he will address early on is the urgent need to improve science and mathematics education in the nation's primary and secondary schools.

"In the 20th century, America led the world in producing important advances in medicine," said Agre. "We spawned new industries, such as biotechnology. But today, the state of science and math education in our public schools is in crisis, and it poses

a threat to America's leadership in science. The need to reinvigorate science and math education must become a national priority."

Benos Named First Holder of University of Alabama's Endowed Professorship In Physiology

Dale J. Benos, APS President-Elect and professor and chair of the Department of Physiology and Biophysics at the University of Alabama at Birmingham (UAB), has been named the first holder of UAB's Endowed Professorship in Physiology. The University of Alabama System Board of Trustees announced the appointment at last week's meeting. Benos is internationally recognized for his contributions to the field of physiology and biophysics. His research focuses on better understanding the movement of sodium ions present in the membranes of surface and nerve cells. The process is relative to the progression of certain diseases such as cystic fibrosis. Prior to joining UAB in 1985 as associate professor of physiology and biophysics, Benos was an associate professor of physiology and biophysics at Harvard Medical School. He was named a professor of physiology and biophysics at UAB in 1987 and appointed chair of the department in 1996. He also holds professorships in the departments of Cell Biology and Neurobiology. ❖

Shinji Asano has accepted a position of Professor with Ritsumeikan University, Information Science & Engineering, Kusatsu, Japan. Asano had been formerly associated with the Life Science Research Center as an Associate Professor, Toyama Medical and Pharmaceutical University, Toyama, Japan.

Jon C. Ashmead is a Graduate Student pursuing Physical Therapy, University of Alberta, Edmonton, Canada. Previously, Ashmead was a student with the Department of Kinesiology, University of Calgary, Calgary, Canada.

Keith Baar has accepted the position as Lecturer, University of Dundee, Dundee, United Kingdom. Prior to his new position, Baar had previously been the Assistant Research Scientist, Institute of Gerontology, University of Michigan, Ann Arbor, MI.

David Patrick Basile is currently affiliated with the Department of Physiology, Indiana University School of Medicine, Indianapolis, IN. Formerly, Basile was associated with the Department of Physiology, Medical College of Wisconsin, Milwaukee, WI.

Jerome W. Breslin has joined the Department of Surgery, M.I.N.D. Institute, UC Davis Medical Center, Sacramento, CA as a Postdoctoral Scholar-Fellow. Breslin had previously been a Postdoctoral Research Associate, Department of Surgery and Medical Physiology, Texas University Health Science Center, Temple, TX.

Mark L. Burleson has joined the Department of Biological Sciences, University of North Texas, Denton, TX, as a Research Fellow. Burleson was formerly an Assistant Professor, Department of Biology, University of Texas at Arlington, TX.

Margot S. Damaser has accepted a position with the Department of Biomedical Engineering, Learner Research Institute, Cleveland Clinic Foundation, Cleveland, OH. Damaser was previously associated with the Department of Research Service and Urology, Hines VA Hospital, Loyola University School of Medicine, Hines, IL.

Susan DeMesquita has accepted the position of Professor of Neuroscience, Department of Neuroscience, American University of the Caribbean, Netherlands, Antilles. Prior to her new position, DeMesquita was Professor and Chair, Department of Physiology, Ross University School of Medicine, Portsmouth, Roseau, Dominica.

Patricia Lee Gordon has moved to the Department of Physiological Nursing, University of California, San Francisco, CA, as an Adjunct Assistant Professor. Gordon previously had been with the Department of Nephrology,

San Francisco VA Medical Center, San Francisco, CA, as a Staff Research Associate III.

Margaret J. Gutilla is currently a Student at Williams College, Williamstown, MA. Gutilla was previously a student with the Department of Sport and Exercise Science, Ohio State University, Columbus, OH.

Mark Hargreaves has affiliated with the Department of Physiology, The University of Melbourne, Melbourne, Australia. Prior to his new position, Hargreaves had been Professor of Exercise Physiology, Deakin University School of Health Sciences, Burwood, Victoria, Australia.

Steven B. Heymsfield has accepted the position of Executive Director, Department of Clinical Research and Metabolism, Merck & Company, Rahway, NJ. Heymsfield was formerly Professor of Obesity Research Center, St. Luke's Roosevelt Hospital, New York, NY.

Chuan Hu has affiliated with the Department of Physiology & Pharmacology, West Virginia University Health Sciences Center, Morgantown, WV. Hu was previously associated with the Department of Cell Biochemistry and Biophysics, Memorial Sloan-Kettering Cancer Center, New York, NY.

Michael Gregory Janech, an Assistant Professor, has affiliated with the Division of Nephrology, Department of Medicine, Medical University of South Carolina, Charleston, SC. Janech had previously been a postdoctoral student with the University of Montpellier, Montpellier, France.

Nikki Jernigan has affiliated with the Department of Cell Biology and Physiology, University of Mississippi Medical Center, Jackson, MS. Jernigan was formerly associated with the Department of Cell Biology and Physiology, University of New Mexico, Albuquerque, NM.

Dennis William Koch recently has affiliated with Canisius College, Buffalo, NY as a Graduate Student. Koch previously was associated with

the Department of Physiology, Pennsylvania State University, University Park, PA.

Bryan Mackenzie recently moved to the Department of Molecular & Cellular Physiology, University of Cincinnati College of Medicine, Cincinnati, OH. Mackenzie was previously affiliated with Harvard Medical School, Brigham & Women's Hospital, Department of Medicine and Membrane Biology Program, Boston, MA.

Marli Cardoso Martins Pinge has been appointed Adjunct Professor, State University of Londrina, Brazil. Pinge was previously a postdoctoral student, Department of Veterinary Biomed Sciences, University of Missouri, Columbia, MO.

Ronald Otterstetter recently moved to the Department of Sport Science and Wellness Education, The University of Akron, Akron, OH. Otterstetter previously was associated with the School of Exercise, Leisure, and Sports, Kent State University, Kent, OH.

R. Dustan Sarazan is the Director of Safety Pharmacology, Covance Laboratories, Inc., Madison, WI. Prior to his new position, Sarazan was the Senior Research Scientist, Department of Cardiovascular Toxicology, Lilly Research Labs, Eli Lilly and Company, Greenfield, IN.

Sarah Y. Yuan is currently the Pearl Stamps Stewart Professor and Director of Research, Department of Surgery, University of California Davis Medical Center, Sacramento,

CA. Yuan previously held the position of Professor, Department of Surgery and Medical Physiology, Texas A&M University Health Science Center, Temple, TX.

Weirong Zhang has affiliated with the University of Texas Health Science Center, San Antonio, TX. Zhang previously was affiliated with the Department of Physiological Sciences, University of Florida, Gainesville, FL.

Noah Paul Zimmerman is presently a Postdoctoral Researcher, Department of Marine Science, University of Southern Mississippi, Ocean Springs, MS. Zimmerman was previously affiliated with the Department of Comparative Biosciences, University of Wisconsin, Madison, WI. ❖

Postdoctoral Positions

Postdoctoral Fellow: An NIH-funded, two- to three-year postdoctoral position is available immediately in the laboratory of Bruce M. Damon. The aims of the project are to understand the biophysical mechanisms influencing NMR relaxation in skeletal muscle and to develop novel applications of this knowledge in physiological studies. The ideal candidate will have an earned doctorate in biomedical engineering or physiology and would preferably have research experience involving NMR imaging or spectroscopy; however, all independently motivated and quantitatively inclined persons are encouraged to apply. Our lab is a component of the Vanderbilt University Institute of Imaging Science (VUIIS; <http://vuiis.vanderbilt.edu>). The VUIIS has more than two dozen core and affiliated faculty with areas of expertise that include imaging physics, development and applications of physiological MRI, MR spectroscopy, engineering, image processing, and chemistry. The VUIIS has outstanding instrumental resources, including a 3.0T whole-body MR imager; a 7.0T whole-body MR imager arriving in December 2005; three small animal MR imagers (4.7, 7.0, and 9.4 T); small animal CT, PET, ultrasound, and in vivo optical imaging systems; EMG; and human and animal near-infrared spectroscopy systems. In addition, there are extensive facilities and technical support for electronics, mechanical fabrication, and computing applications. Interested persons should send a cover letter, vita, statement of research interests, and names of three professional references to: Bruce Damon, PhD, Department of Radiology and Radiological Sciences, Vanderbilt University Medical Center, 1161 21st Ave S, CCC-1121 MCN, Nashville, TN 37232; Email: bruce.damon@vanderbilt.edu; Tel.: 615-322-8355; Fax: 615-322-0734. Materials sent electronically should be in pdf format, if possible. Applications will be considered until the position is filled. All qualified persons are encouraged to apply. [EOE/AA]

Postdoctoral Fellows: The Clinic for Small Animal Internal Medicine and Institute for Veterinary Physiology, Vetsuisse Faculty, University of Zurich, Switzerland is looking for experienced postdoctoral fellows (age limit 40 years) with strong record in physiology, biochemistry and/or endocrinology. The fellows are invited to apply for a position dedicated to promoting clinically oriented research, which will be conducted in collaboration with the clinic for small animal medicine and the institutes of veterinary physiology and virology. The research will be focused on diabetes mellitus in cats, with emphasis on physiology and pathophysiology of beta-cells. Initially, the position is offered for a period of three years. During that time, completion of a Habilitation as a requirement for tenure is strongly encouraged. We offer an excellent infrastructure in a collaborative environment in a newly formed "diabetes group" within local and international networks. This includes collaboration with human endocrinologists, due to the similarity between human and feline diabetes. Requirements: diploma and PhD or equivalent in veterinary medicine, medicine, or natural sciences. Previous postdoctoral experience and proven skills in cell biological and molecular biological techniques is mandatory. Documented success in acquisition of research funding would be advantageous. The successful candidate is expected to establish and manage a strong research program in collaboration with senior clinicians and researchers from the clinic and the two institutes. Further networking is also encouraged. In addition, he/she is encouraged to guide postgraduate and PhD students. After an initial phase, she/he is expected to contribute with acquisitions from competitive funding. A progress evaluation will take place twice per annum, during which the successful candidate will report to the joint directors of the appointment. Start date: July 2005 or upon mutual agreement. Please send, within six weeks from publication of this advertisement, your CV (including publication list and final marks), research outline, and three letters of reference to: Prof. Dr. Claudia Reusch;

Endocrinology & Diabetes; University of Zurich, Vetsuisse Faculty, Winterthurerstrasse 260, 8057 Zurich. Prof. Claudia Reusch (Clinic for Small Animal Internal Medicine), Prof. Thomas Lutz (Institute of Veterinary Physiology), Prof. Mathias Ackermann (Institute of Virology); Email: msekey@vetclinics.unizh.ch.

Postdoctoral Fellows: Clinic for Small Animal Internal Medicine and Institute for Virology, Vetsuisse Faculty, University of Zurich, Switzerland. Experienced postdoctoral fellows (age limit 40 years) with strong record in immunology and interest in endocrinology are invited to apply for a joint position dedicated to promoting clinically oriented research, which will be conducted in collaboration with the clinic for small animal medicine and the institutes of virology and veterinary physiology. The research will be focused on the pathogenesis and treatment of diabetes mellitus in dogs and cats, with emphasis on immunological and genetic aspects involved. We offer an excellent infrastructure in a newly formed "diabetes group" within local and international networks. Initially, the position is offered for a period of three years. During that time, completion of a Habilitation as a requirement for tenure is strongly encouraged. Requirements: diploma and PhD or equivalent in Veterinary medicine, medicine, or natural sciences. Previous postdoctoral experience and proven skills in cell biological and molecular biological techniques as well as a strong record in immunology is mandatory. Documented success in acquisition of research funding would be advantageous. The successful candidate is expected to establish and manage a strong research program in collaboration with senior clinicians and researchers from the two institutes. Further networking is also encouraged. In addition, he/she is invited to participate in teaching activities, i.e., clinical immunology, and encouraged to guide own diploma and PhD students. After an initial phase, she/he is expected to contribute with acquisitions from competitive funding. A progress evaluation will take place twice per annum, during

which the successful candidate will report to the joint directors of the appointment. Documentation: Please send, within six weeks from publication of this advertisement, your CV (including publication list and final marks), research outline, and three letters of reference. Starting date: July 2005 or upon mutual agreement. Send applications to: Prof. Dr. Mathias Ackermann, "Immunology & Diabetes," Institute of Virology, Vetsuisse Faculty, University of Zurich, Winterthurerstrasse 266a 8057 Zurich. Contact: Proff. M. Ackermann (Virology) C. Reusch (Small Animal Internal Medicine) and T. Lutz (Physiology); Email: email@vetvir.unizh.ch.

Postdoctoral Positions: The University of Texas Southwestern Medical Center is seeking two Postdoctoral Fellows to study the effects of free radicals on the sympathetic neural control of skeletal muscle blood flow during exercise. One Fellow will be responsible for performing in vivo rat and mouse experiments and in vitro cell culture experiments. Applicants for this position should have prior experience in small animal surgery or microsurgery. The second Fellow will be responsible for performing clinical studies in healthy volunteer subjects and select patient populations. Applicants for this position should have a background in human physiology; experience with non-invasive techniques to measure limb blood flow is highly desired. For both positions, ample opportunity will be provided to learn a broad range of research methodologies including molecular and cellular techniques, integrative whole animal procedures, and translational human approaches. Current research areas in the Division include neural control of the circulation in hypertension, obesity, muscular dystrophy, and renal failure. A PhD and/or MD, one to two years relevant experience in cardiovascular or exercise physiology, and excellent communication skills in English are required. These NIH-funded positions are available immediately. Salaries are competitive and will be based on prior experience. Please send a letter of interest, curriculum vitae, and the names of

three references to: Gail D. Thomas, PhD, Hypertension Division, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390-8586; Email: gail.thomas@utsouthwestern.edu. [EOE/AA]

Postdoctoral Position: A postdoctoral position in integrative physiology of digestion will be available in May in the laboratory of Dr. Stephen Secor at the University of Alabama (<http://www.as.ua.edu/biology/secor.htm>). The research involved will investigate the underlying mechanisms responsible for the regulation of intestinal performance in pythons. Pythons possess the unprecedented capacity to widely regulate intestinal performance with each meal and are an exciting new model to explore mechanisms of tissue regulation. Studies will be aimed at understanding how postfeeding increases in luminal surface area contribute to the upregulation of intestinal function, and the mechanisms by which intestinal microvilli can increase rapidly (4-fold within 24 hours) after feeding. Applicants should have a PhD prior to starting the position, strong research background, and a keen interest in integrative approach ranging from the organismal to the molecular level. Preference will be given to those applicants with experience in laboratory skills, including immunohistochemistry, electrophoresis, and electron microscopy, as well as working with reptiles. This is a three-year position with a starting salary of \$30,000 and includes benefits and travel support. Interested applicants should send (email is preferable) a letter of interest and research experience, curriculum vitae, and the names and contact information of three references to Dr. Stephen Secor, Department of Biological Sciences, University of Alabama, Tuscaloosa, AL 35487-0344; Tel 205-348-1809; Email: sscor@biology.as.ua.edu. Review of applications will continue until the position is filled.

Postdoctoral Position: Regulation of water movement across epithelia. A postdoctoral position is available immediately in the Section on

Epithelial and Retinal Physiology and Disease, Division of Intramural Research, National Eye Institute (NEI), National Institutes of Health (NIH), Department of Health and Human Services (DHHS) located in Bethesda, MD to study molecular, intracellular, and plasma membrane mechanisms that regulate cell volume, pH, Ca²⁺, K, Na, and water movement across epithelia. For in vitro experiments projects could involve use of conventional and double-barreled microelectrodes, fluorescence imaging, and capacitance probe techniques for measuring fluid transport. In vivo experiments involving OCT, angiography, and ERGs will be used to test the efficacy of therapeutic interventions in animal models of disease. Applicants must have a strong background in physiology, cell biology, biophysics, or bioengineering and less than five years of postdoctoral experience. Experience in imaging, animal models, histology and cell culture is also desirable. Please send CV, description of research interests, names and addresses of three references to: Jeffrey Hammer, c/o Dr. Sheldon S. Miller, SERPD, DIR, NEI, NIH, Building 10/Room 10B04, 10 Center Drive, Bethesda MD 20892-1857; Email: SERPD@NEI.NIH.GOV; Fax: 301-451-2040. [EOE/AA]

Postdoctoral Fellow Position: A postdoctoral position is available at the University of Vermont College of Medicine-Burlington, to study embryonic stem cell-derived cardiomyocytes in cell culture and to examine regeneration of the injured heart after transplantation of embryonic stem cells following myocardial infarction. The candidate should have a PhD or MD degree and experience in cell culture, immunohistochemistry and animal surgery. The candidate must be a US citizen or permanent resident. Interested candidates please send: cover letter, CV, Email addresses, names of three references and a brief statement of your previous accomplishments and your future career aims to: Dinender Kumar, PhD, Assistant Professor of Medicine, University of Vermont, College of Medicine, 208 South Park Dr Suite 2,

Room T114, Colchester, VT 05446, USA; Tel.: 802-656-8903; Fax: 802-656-8969; Email: Dinender.Kumar@uvm.edu. [EOE/AA]

Postdoctoral Fellow: Optical Recording and Neurophysiology. This NIH-funded position at Saint Louis University's Department of Pharmacological and Physiological Science is available immediately to study cerebellar processing in vitro using optical and patch recording techniques. Highly motivated individuals with interests in sensory and cellular neurobiology are encouraged to apply. Experience with whole-cell recordings in brain slices is desirable. Send curriculum vitae with names of three potential references to: Michael Ariel, PhD, Pharmacological and Physiological Science, Saint Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104-1004. <http://medschool.slu.edu/pharmphys/index.phtml?page=ariel&cat=faculty>. Saint Louis University is a Catholic, Jesuit institution dedicated to student learning, research, healthcare and service. [EOE/AA]

Postdoctoral Positions: Membrane Transport and GI Physiology. Several positions are available to study the molecular mechanisms, structure-function, and regulation of membrane transport proteins and ion channels, within the primary context of gastrointestinal physiology. We seek postdoctoral candidates with skills and experience in electrophysiology, fluorescence techniques, or molecular biology. A willingness to learn these approaches is essential. Positions are available in the laboratories of Bryan Mackenzie (molecular mechanisms of ion-coupled membrane transporters serving iron, amino acids, vitamin C; intestinal iron absorption) John Cuppoletti (structure and function of native and engineered membrane transport proteins in synthetic membranes), and Marshall H. Montrose (molecular mechanisms of Na^+/H^+ exchange activation in native tissue and cultured cell models). The city of Cincinnati offers a dynamic cultural

experience combined with a low cost of living and easy access to air travel <http://www.hr.uc.edu/working/living.asp>. Applications will be considered on an ongoing basis. Electronic applications (preferably pdf) are strongly encouraged. Please provide a cover letter, CV, and contact information for two referees to: Bryan Mackenzie, University of Cincinnati College of Medicine, Department of Molecular & Cellular Physiology, PO Box 670576, Cincinnati, OH 45267-0576, USA. Email: bryan.mackenzie@uc.edu. Informal enquiries are welcome by email or by telephone at 513-558-3627. <http://mcp.uc.edu/>. [EOE/AA]

Postdoctoral Research Scientist: At GlaxoSmithKline, scientists in Research and Development are committed to capturing this moment. They bring to it their own very considerable abilities, the resources of a parent company devoted to the scientific enterprise, and the urgency of knowing that their highest purpose is the relief of human suffering. In pursuit of this purpose, they desire to make of GlaxoSmithKline a magnet for others who share their talents, whether as prospective corporate colleagues or as collaborators in industry, academe, and government. Two-year postdoctoral opportunity: minimum requirements: PhD in biological sciences preferably pharmacology or physiology. In vivo experience, preferred electrophysiology. Track record of technical and scientific accomplishment. Excellent written and oral communication skills. Details: The Urogenital biology group in the Cardiovascular and Urogenital Center of Excellence for Drug Discovery is seeking a doctoral scientist to conduct and develop animal models of bladder function. The candidate will play a key role in developing novel ways to evaluate the effects of potential new therapies to treat Urinary Incontinence. In addition, the candidate will join a dynamic team of scientists in exploratory work using these animal models of bladder function to identify novel targets to treat Urinary Incontinence. The candidate will be involved of several exciting research projects currently being conducted in the department. Experi-

ence with working with animals is desired, preferably in animal models of disease. Strong team and communication skills are required. GlaxoSmithKline is dedicated to an innovative workplace and supports you with career long opportunities and learning. We offer a competitive benefits and compensation package designed to attract and retain the very best. We offer a competitive total compensation package as well as an environment conducive to personal and professional growth. No agency referrals please. For confidential consideration and efficient processing, please apply online at: http://careers.peopleclick.com/client40_gsk/BU1/EXTERNAL1931/newcandidate.asp?Source=APhysiologicalS&JobID=17788 [EOE/AA]

Faculty Positions

Chair, Department of Physical Education and Exercise Science: The University of North Dakota Department of Physical Education and Exercise Science is recruiting for a Chair at the Associate Professor/Professor level (tenure-track). The University has demonstrated increased successes in becoming more research-intensive and this Department actively seeks an individual with strong research capabilities in exercise physiology or a related field. The Department has diverse interests in physical education, fitness/wellness, and teaching/coaching. The Chair will have the opportunity to hire new faculty and will be expected to help forge productive collaborative arrangements with excellent faculty/researchers with complementary interests at the School of Medicine and Health Sciences, the Wellness Center, the John D. Odegard School of Aerospace Sciences, and the USDA Human Nutrition Research Laboratory. UND is one of the largest and most diversified universities in the upper Midwest, has an enrollment of over 13,500 students, is classified by the Carnegie Foundation as a doctoral/research-intensive institution, and is located in a family-oriented community of 60,000 people with excellent schools, parks and

abundant year-around outdoor recreational activities. We are currently accepting applications for this position scheduled to start August 16, 2005; application review will continue until position is filled. Please submit letter of application, current curriculum vita, statement of research interests, and names and contact information of five people we may contact for letters of recommendation to: Dr. Jonathan Geiger, Search Committee Chair, University of North Dakota, Box 8235, Grand Forks, ND, 58202-8235, Tel.: 701-777-2183; Email: jgeiger@medicine.nodak.edu.

Professor: The Department of Physiology LSUHSC, New Orleans seeks outstanding candidates for up to four tenure-track faculty positions at the Assistant to Full Professor level. The successful candidate must have a PhD and/or MD degree with a strong record of research accomplishments in one or more of the following research areas: Pathophysiology of the host defense response to oral, lung or systemic inflammation & infection; Renal physiology; Obesity and diabetes; Angiogenesis. There are excellent opportunities for collaboration at molecular, cellular, or systems levels of integration. Successful candidates will be expected to complement the existing research strengths of the department, rapidly develop an extramurally funded research program, and participate in the department's graduate and undergraduate teaching programs. An excellent start-up package, competitive salary, and state-of-the-art instrumentation are available for each position. Applicants should send a curriculum vitae that includes previous and current research funding, a statement of research plans, and the names of at least three references to: Dr. Gregory Bagby (gbagby@lsuhsc.edu), Department of Physiology, LSU Health

Sciences Center, 1901 Perdido Street, New Orleans, LA 70112-1393. [EOE/AA]

Lecturer in Molecular & Integrative Physiology: A full-time Physiology Lecturer position, (100%) is available to coordinate and present the entire first year medical physiology curriculum in the Department of Molecular & Integrative Physiology, University of Illinois at Urbana-Champaign. Qualifications: PhD in Physiology or a related science area is required. The candidate must have at least 10 years of experience in teaching physiology to medical students and that experience should not be based on one particular physiological specialty but should encompass teaching of all aspects of human systems physiology and cellular physiology. The candidate should have experience integrating physiological education into the clinical years and should have demonstrated the ability to work with clinical faculty. Experience with curriculum development is required. It is expected that the candidate will have had experience developing and supervising laboratory exercises in physiology. The candidate should have a consistent record of scholarly productivity including publications and grant support. Salary: dependent on experience and qualifications. Starting date: as soon as possible after closing date. Send applications to: Denice A. Wells, Administrative Secretary, Department of Molecular & Integrative Physiology, 524 Burrill Hall, MC-114, 407 S. Goodwin Ave., Urbana, IL 61801; Tel.: 217-333-1734; Fax: 217-333-1133; Email: d-wells2@life.uiuc.edu. For full consideration, applications (resumé and names with full contact information for three references) should be received by March 1, 2005. Interviews may be conducted before the closing

date, but all applications received by that date will receive full consideration and the final selection will not be made until after that date. [EOE/AA]

Tenure Track Assistant or Associate Professor: The Department of Physiology at Jefferson Medical College, Thomas Jefferson University, Philadelphia, PA, has a Tenure Track Assistant or Associate Professor position available for a cardiac muscle physiologist/biophysicist or an expert in the regulation of gene and protein expression in the normal or diseased myocardium. The candidate must have a demonstrated ability to establish an independent research program. The existing research strengths in muscle biophysics, ion channels, vascular and endothelial biology and cell signaling are carried out within the context of a collegial and collaborative environment. The successful candidate will also participate in the teaching of medical and graduate students. Candidates must be US citizens or green card holders. Applicants should submit their curriculum vitae, a statement of research and career goals and names of three references. Please visit our website at <http://www1.tju.edu/physiology>. Respond to: Marion J. Siegman, PhD, Department of Physiology, Jefferson Medical College, 1020 Locust Street, Philadelphia, PA 19107. [EOE]

Assistant Professor: A research assistant professor position is available in the Department of Physiology at the Louisiana State University Health Sciences Center in New Orleans. The candidate will be involved with studies investigating mechanisms of coronary dysfunction in the prediabetic metabolic syn-

Advertise your job vacancy to over 10,000 members and subscribers!

Ads are accepted for either positions available or positions wanted under all categories. The charge is only \$75. All ads are also posted on the APS Career Opportunity Web page upon receipt for a three month period.

If you would like to have your ad listed in *The Physiologist* or on the APS Career Opportunities Web page (<http://www.the-aps.org/careers/careers1/posavail.htm>),

the following items are needed: a copy of the ad, the name of a contact person, and either a purchase order number, credit card number (with expiration date and name of cardholder) or billing address. Send the information to Linda Dresser (Email: ldresser@the-aps.org; Tel: 301-634-7165; Fax: 301-634-7241).

drome. In particular, the candidate will be responsible for conducting molecular biology experiments utilizing classical and real time PCR as well as Western analyses. In addition, the candidate will be involved with experiments in conscious, chronically instrumented and anesthetized dogs and for performing functional isolated coronary microvessel studies. This research opportunity offers an integrative approach to study coronary and cardiovascular regulation in developing diabetes mellitus. The ideal candidate for this position will have a strong background in molecular biology, cardiovascular physiology, diabetes and mechanisms of vascular control. Experience with real time PCR and Western analyses is preferred. Applicants should email their curriculum vitae to: Johnathan D. Tune, PhD, Assistant Professor, Department of Physiology, LSU Health Sciences Center, 1901 Perdido Street, New Orleans, LA 70112; Tel. office: 504-568-6182; Tel. lab: 504-568-2619; Fax: (504) 568-6158; Email: jtune@lsuhsc.edu; Web: <http://www.lsuhs.edu/no/> or <http://www.physiology.lsuhs.edu/>. [AA/EOE]

Faculty Position in Exercise Science: The Department of Exercise and Nutrition Sciences at the University at Buffalo is seeking applicants for a Clinical Education Coordinator at the Clinical Instructor OR Clinical Assistant Professor level. Minimum qualifications to be hired at the Clinical Instructor level are: Master's degree in exercise science or related field, college-level teaching experience, background supervising students in a clinical setting, good organizational and communication skills and some exposure to clinical research. Minimum qualifications to be hired at the Clinical Assistant Professor level include those listed above plus a PhD degree and a track record in clinical research. Duties at the Clinical Instructor level include supervision of student internships, maintain current and establish new clinical affiliations, advise and teach undergraduate students, and contribute to the departmental research mission. At the Assistant Professor level

the candidate is expected to teach and advise graduate students and conduct clinical research in addition to those duties listed above (workload will be adjusted accordingly). Preferred start date is July 1, 2005. Send a CV and the names of three professional references to Dr. John Wilson, Chair, Dept. ENS, 405 Kimball Tower, University at Buffalo, Buffalo NY 14214-3079 or by Email: jxwilson@buffalo.edu. [EOE/AA]

Assistant Professor Position: The Department of Pharmacology and Toxicology at Michigan State University is accepting applications for a tenure-track faculty position at the Assistant Professor or Associate Professor level. We are seeking candidates with an interest and expertise in inflammation as it relates to pathophysiological mechanisms or adverse consequences of drugs or other chemicals in living systems. Preference will be given to candidates who complement existing strengths in the areas of neurodegenerative, respiratory/airway or hepatic disease. Candidates should have a PhD or equivalent in Pharmacology & Toxicology or related discipline, extensive postdoctoral research experience and demonstrated success in obtaining extramural funding. The candidate will have the opportunity to participate in dynamic and nationally-recognized interdisciplinary research and training programs including the Center for Integrative Toxicology, the National Food Safety and Toxicology Center, the Cell and Molecular Biology Program, the Center for Biological Modeling, the Genetics Program and the Neuroscience Program. The successful candidate will be expected to establish an independent and extramurally-funded research program and to contribute to teaching and other departmental activities. Interested individuals should send their curriculum vitae, statement of research interests and future research plans, and three letters of recommendation. Electronic submission to hummeld@msu.edu is encouraged; paper applications may be sent to: Chair, Faculty Search Committee, Department of Pharmacology and Toxicology, Michigan State University, B440 Life Sciences Building, East Lansing, MI

48824-1317. Review of applications will begin immediately and applications will be accepted until the position is filled. See our web site: <http://www.phmtox.msu.edu>. [EOE/AA]

Associate/Full Professor. Mercer University School of Medicine invites applications for a broadly trained Physiologist for a full-time, tenure-track faculty position at the rank of Associate or Full Professor in the Division of Basic Medical Sciences. The position will begin as early as August 20, 2005 and is hard money funded. Salary is competitive and commensurate with qualifications and experience. Applicants must have an earned PhD in Physiology from an accredited university/college, postdoctoral experience or equivalent training, and a systems-based knowledge of physiology. The successful applicant will have the ability to effectively impart knowledge and interactively teach first and second year medical students in a problem-based curriculum that is organ systems based. A strong dedication to students, excellence in education, appreciation of life long learning, and clinically-relevant physiology curriculum development experience is expected. The candidate may additionally have an opportunity to develop curriculum and teach in the new Nurse Anesthetist Program. Documented success in scholarly activities involving basic, applied, or educational research is required. Review of applications will begin on March 15, 2005 and continue until the position is filled. Additional information about Mercer University School of Medicine and the Division of Basic Medical Sciences is at <http://medicine.mercer.edu>. Interested candidates must apply online at <http://www.mercerjobs.com>. [AA/EOE/ADA]

Assistant Professor of Biology: St. Norbert College is seeking an animal physiologist for a tenure-track position as Assistant Professor of Biology. For full job description and application guidelines, please see <http://www.snc.edu/natsci/physiologist.htm> [EOE]

Instructor of Research: The Department of Pharmacology at the University of Virginia is seeking to fill an Instructor of Research position to investigate the control of mRNA translation by insulin. PhD required in Physiology, Cell Biology or Molecular Biology with at least three years of postdoctoral training, are encouraged to apply. Send resume to tjs3n@virginia.edu. Application deadline: open until filled. [EOE/AA]

Assistant/Associate Professor: The Department of Veterinary Biosciences, in the College of Veterinary Medicine at The Ohio State University is a multi-disciplinary research-intensive department with responsibility for organizing and teaching basic and selected clinical veterinary medical sciences to students pursuing the DVM degree, and for providing clinical services in anatomic and clinical veterinary pathology (<http://www.vet.ohio-state.edu/docs/biosci/index.html>). Current faculties have disciplinary expertise in microbiology (10), physiology/pathophysiology (9), endocrinology (5), and anatomy and cell biology (7). The faculty receive significant federal research funding in cancer biology, biochemical and molecular endocrinology, riskettsiology and virology and significant industrial research and development funding in physiology, pathology, and pharmacology, supporting a graduate program (MS, PhD, DVM/PhD and board certification preparation) of over 70 students. The department has an opening for a tenure-track research-intensive Assistant/Associate Professor who will develop and sustain a research program in an area that would complement existing disciplinary research strengths while contributing to the departmental teaching and service missions. Candidates with expertise in integrative physiology, veterinary pathology, or toxicology are encouraged to apply. A PhD and a commitment to graduate education are essential. Candidates holding both the PhD and DVM/VMD are preferred, as are candidates who can participate in preparing graduate students for medical specialty boards. More senior candidates should have a proven record of

extramural funding, while junior candidates should have demonstrated potential for developing an outstanding research program that would attract extramural funding. Departmental support facilities are extensive and include BSL-3 containment laboratories, four necropsy laboratories, new state-of-the-art research laboratories, a flow cytometry, confocal, and in vivo imaging facility, a surface plasmon resonance biosensor, and facilities for phenotyping genetically modified animals. Applications should include a curriculum vitae, statement of career goals, summary of current research activities, statement of teaching philosophy, and the names (with complete mailing and email address) of at least four individuals from whom letters of reference may be solicited. Academic rank, salary, and start-up package are negotiable. Application review will begin on May 15, 2005 and will continue until the position is filled. Address all correspondence to: Dr. Steven E. Weisbrode, Chair of Search Committee, Department of Veterinary Biosciences, College of Veterinary Medicine, The Ohio State University, 1925 Coffey Road, Columbus, OH 43210. [EOE/AA]

Associate/Full Professor: Faculty in Spinal Cord Research. We are now accepting applications for a faculty position at the Associate or Full Professor level in the Department of Physiology of Emory University. We seek an outstanding investigator to join a strong and established group devoted to basic research on the spinal cord and musculoskeletal systems. Research areas of interest include those at molecular, cellular and systems levels and will complement research of existing faculty. We are particularly interested in candidates who can bridge these levels of analysis. Opportunities for collaboration at Emory are to be found among the faculty of the large Neuroscience Graduate Training Program, including faculty from the Yerkes Primate Center, as well as the new Department of Biomedical Engineering. The successful candidate will be expected to establish a strong research program and participate in scholarly activities

of the neuroscience community. Interested candidates may submit a curriculum vitae, a statement of research and teaching interests, and a list of three to five references to: Dr. Richard T. Nichols, Department of Physiology, Emory University, Atlanta, GA 30322. [EOE/AA]

Assistant Professor: The Department of Exercise Science invites applications for a tenure-track assistant professor in Exercise Science, beginning Fall of 2005. The successful candidate will complement the Department's existing strengths in teaching and research. Applicants must have a PhD in Kinesiology, Exercise Science, Exercise Physiology or a related discipline, and a primary interest in teaching undergraduate students at a liberal arts and science institution. Teaching experience is highly desirable. Evidence of a successful independent research program is required; postdoctoral experience is preferred. Teaching responsibilities may include the following courses: Human Anatomy and Physiology, Principles of Nutrition for Health and Performance, Neuromuscular Aspects of Human Performance, and specialty courses in the candidate's area of expertise. The successful candidate may also be asked to offer courses in the First Year Seminar and interdisciplinary science programs. Establishment of a strong research program that involves undergraduate students is expected; excellent teaching and research facilities and support are available. Preference will be given to candidates who have research expertise in cellular and molecular aspects of exercise science. Send curriculum vitae, statements of teaching and research interests, and three letters of recommendation to: Denise Smith, Chair, Department of Exercise Science, Skidmore College, 815 North Broadway, Saratoga Springs, NY 12866. Review of applications will begin immediately and continue until the position is filled. [AA/EOE]

Biology Faculty: The Division of Natural Science and Mathematics at Roberts Wesleyan College is accepting applications for a tenure-track posi-

tion in the Biology Department starting fall 2005. A PhD is required. Teaching experience is preferred. Those with ongoing, transferable research projects that can include students are also preferred. Candidates with strengths in content areas of Anatomy and Physiology/Microbiology are encouraged to apply. Candidates must be energetic, creative, and have strong interpersonal skills. A completed application is required and can be downloaded at: [http://www.roberts.edu/Visitors & Community/Working at Roberts](http://www.roberts.edu/Visitors%20&%20Community/Working%20at%20Roberts). Send completed Application for Faculty Position, letter of interest, and vita to Dr. Barbara Rose, Chair, Division of Natural Science and Mathematics; Roberts Wesleyan College; 2301 Westside Drive; Rochester, NY 14624; or Email roseb@roberts.edu. Roberts Wesleyan College is a Christian liberal arts college with approximately 1,500 students and is accredited by The Middle States Association. Roberts Wesleyan College complies with all applicable non-discrimination laws and is committed to the enhancement of human dignity and workplace diversity.

Faculty Position: Due to increased enrollment, Xavier University of Louisiana (<http://www.xula.edu>) has an opening for a full-time, tenure track faculty position in physiology. PhD and postdoc required. Expectations include teaching, active, student-involved, scientific and/or pedagogical scholarship, student-advising and service. Experience teaching histology preferred. Send curriculum vitae, transcripts, teaching philosophy, research plan and names of three references to Dr. S. K. Ireland, Chair, Search Committee, Department of Biology, Xavier University of Louisiana, 1 Drexel Drive, New Orleans LA 70125 [skale@xula.edu]. Review of applications will begin immediately and continue until the position is filled. Xavier is an historically Black, Catholic University nationally recognized for its pre-med program. Biology (with 1100+ majors) is the largest department. [EOE]

Research Positions

Graduate Research Opportunity: Opportunities for studying Exercise Physiology or Biomechanics are available at the University of Southern California. In Exercise Physiology, our research focuses on metabolism (carbohydrates, lipids, proteins) and its regulation during exercise, with aging and in pathophysiological conditions (Type I Diabetes, Type II Diabetes, Obesity). In Biomechanics, our research focuses on the mechanisms humans use to generate and control momentum during multi-joint movements (athletic, ergonomic, and clinical populations). We currently have several positions open for highly motivated graduate students. Courses for doctoral students are offered within and outside the department in areas such as biomedical engineering, computer science, integrative and evolutionary biology, physiology, gerontology, and statistics. Doctoral students will enter one of two interdisciplinary degree programs available at USC: Biomedical Engineering Biomechanics, or Integrative and Evolutionary Biology (Biomechanics and Exercise Physiology). Students are encouraged to apply for Graduate Fellowships, and Teaching and Research Assistantships. Recipients receive stipends, health benefits, and tuition remission as part of their assistantships or fellowships. If you are interested in learning more about the programs, please contact Dr. Jill McNitt-Gray at mcnitt@usc.edu if you are interested in Biomechanics; or Dr. Lorraine Turcotte at turcotte@usc.edu if you are interested in Exercise Physiology.

Assistant Research Scientist: The University of Iowa Carver College of Medicine, Department of Internal Medicine, Division of Allergy/Immunology, is seeking an Assistant Research Scientist to perform basic research to advance knowledge of cellular and molecular mechanisms involved in the development and differentiation of embryonic stem cells in vitro and in vivo. The work will require expertise in cellular immunology, molecular biology and transplan-

tation immunobiology and to identify and select problems to be studied, the approach to them and the results obtained. Requires a person in this classification has the academic knowledge of a discipline that is generally associated with a Doctoral degree (PhD) in biomedical science, or an equivalent professional degree, i.e., MD, DDS or DVM. In addition, the person will have had postdoctoral research training and demonstrated the ability to plan and execute a research study through some progressively responsible independent research work. Requires completion of postdoctoral training. Requires extensive experience in basic immunology and experience in teaching and training laboratory personnel. Requires evidence for successful independent experimental design and execution including teaching and presentation skills. Highly desires a PhD degree in Immunology, Biochemistry, Molecular biology, or any other Bioscience discipline; research experience in the areas of molecular biology, including PCR, cell culture, biochemistry; immunology and in vivo experimental models. Highly desires evidence for success in seeking and acquiring external funding and evidence for success in publishing manuscripts in well-recognized journals as first author. Please send resume and cover letter indicating #51078 to: Carol Wehby, Human Resources, Internal Medicine, E400 GH, 200 Hawkins Drive, Iowa City, IA, 52242-1081. [AA/EOE]

Assistant Research Scientist: The University of Iowa Carver College of Medicine, Department of Internal Medicine, Division of Cardiovascular Diseases, is seeking an Assistant Research Scientist to perform basic research to understand the molecular mechanisms of epithelial ion transport using biochemical, molecular, and electrophysiological methods; identify and select the problems to be studied, the approach to them and the results obtained. A person in this classification has the academic knowledge of a discipline that is generally associated with a Doctoral degree, or an equivalent professional degree, i.e., MD, DDS or DVM. In addition, the person will

have demonstrated the ability to plan and execute a research study through some progressively responsible independent research work. Requires completion of postdoctoral training. Requires previous research experience in the biology of epithelial ion channels. Requires previous experience investigating ion channel biology using techniques of molecular biology (including PCR, cloning, transfection, and mutagenesis), biochemistry (including western blots, immunoprecipitation, immunofluorescence, and biotinylation), cellular electrophysiology (including Ussing chamber and *Xenopus* oocyte recording), and tissue culture. Highly desires a record of research accomplishment as evidenced by publication of research results in peer-reviewed scientific journals and presentations at national meetings. Please send resume and cover letter indicating #51117 to: Carol Wehby, Human Resources, Internal Medicine, E400 GH, 200 Hawkins Drive, Iowa City, IA, 52242-1081. [AA/EOE]

Research Physiologist (2): The US Army Research Institute of Environmental Medicine Thermal & Mountain Medicine Division invites applicants for two permanent (Tenure-Track) civilian Research Physiologist positions (\$76,000 to \$117,000). Successful candidates will develop human research programs regarding thermoregulation, physical performance, and adaptations to heat exposure. Unique facilities include environmental chambers (heat, cold, altitude, water immersion) and well-equipped physiological, biochemical and molecular laboratories. Applicants must have postdoctoral experience with a strong record of publications and grant writing and a strong background in systems/integrative physiology, temperature regulation and fluid balance and exercise physiology; familiarity with physiological modeling is desirable. Applicants must be citizens of the United States. Women and minorities are strongly encouraged to apply. Send resume to Dr. Michael N. Sawka, Chief, Thermal & Mountain Medicine Division, US Army Research Institute of Environmental Medicine, Kansas Street, Natick, MA 01760-5007; Tel.: 508-233-5665; Email Michael.Sawka@us.army.mil).

Sr. Research Scientist II: One important accomplishment leads to another at Wyeth. We discover, develop, manufacture and market innovative medicines that are leading the way to a healthier world. We currently seek an experienced Research Scientist, In-Vivo Pharmacology, to join us at our Cambridge, MA facility. Your role will be critical to the successful completion of discovery efforts to aid in the identification, characterization and development of new therapeutic agents for Reno vascular diseases, Reno vascular complications of metabolic syndrome, and diabetic nephropathy. Responsibilities will include the coordination of in vivo studies of animal models to determine the natural history of disease progression and correlate that progression to changes in gene and protein expression in the vasculature and in the kidney. In addition, you coordinate in vivo studies of novel therapeutic agents in animal models of Reno vascular hypertension, metabolic syndrome and diabetic nephropathy. The correlation of pharmacological response with changes in gene and protein expression in the vasculature and kidneys of said animal models will be explored to aid in the understanding of the therapeutic agents' mechanism of action and to aid in the identification of potential biomarkers for use in future clinical trials. You will also combine pharmacology studies with molecular biology techniques such as RT/PCR, gene chip analysis, etc. Qualified candidates will be PhD level scientists with training/experience in in vivo pharmacology with molecular biology expertise. 3-5 years of in vivo pharmacology experience following the PhD are required. Please email your resume along with a cover letter that includes the Job Code: GNC05910743 in the body of the text. Please include the Job Code and the following Source Code: OIAMPS in the subject line of your email to: Wyeth@TrackCareers.com. Wyeth offers competitive compensation and benefits programs including flex-time, business casual attire and professional development programs. For more information, visit our website at <http://www.wyeth.com>. [EOE/AA/M/F/D/V]. Principals only.

Assistant Research Scientist: The University of Iowa Carver College of Medicine, Department of Internal Medicine, Graduate Program in Molecular Biology, Division of Nephrology/Hypertension is seeking an Assistant Research Scientist to perform basic research to advance knowledge of cellular and molecular mechanisms involved in regulation of ion transport in the kidney. The work will require expertise in cell biology, molecular biology and an understanding of molecular genetics, and to identify and select problems to be studied, the approach to them and the results obtained. A person in this classification has the academic knowledge of a discipline that is generally associated with a Doctoral degree, or an equivalent professional degree, i.e., MD, DDS, DVM or PhD. In addition, the person will have demonstrated the ability to plan and execute a research study through some progressively responsible independent research work. Requires completion of postdoctoral training. Requires extensive experience in cellular and molecular biology and experience in teaching and training laboratory personnel. Requires evidence for successful independent experimental design and execution including teaching and presentation skills. Highly desires a PhD degree in Biochemistry, Molecular biology, Cell Biology or any other Bioscience discipline; research experience in the areas of molecular biology, and biochemistry. Highly desires evidence for success in seeking and acquiring external funding and evidence for success in publishing manuscripts in well-recognized journals as first author. Please send resume and cover letter indicating # 51205 to: Carol Wehby, Human Resources, Internal Medicine, E400 GH, 200 Hawkins Drive, Iowa City, IA, 52242-1081. [EOE/AA]

Research Physiologist: The US Department of Agriculture, Agricultural Research Service, Swine Odor & Manure Management Unit, Ames, IA is recruiting a permanent scientist to join their research team. The successful applicant will serve as an independent investigator conducting

research to gain new insights into how reformulation of existing dietary ingredients or incorporation of novel ingredients, will affect intestinal and/or whole-animal nutrient metabolism. Methods selected for these studies will require innovative adaptation of the principles of molecular biology and cell or organ culture. Knowledge of experimental animal growth, development, physiology, and nutrient metabolism is also required. The incumbent will also serve as a team member investigating the interaction between nutrition and animal physiology/nutrient metabolism. Salary is fully funded and commensurate with experience (\$60,576–\$110,662). The research program will fully support the incumbent's independent research and salary for a technician. US Citizenship required. PhD preferred. Comprehensive benefits package includes paid annual and sick leave, life insurance, health insurance, and a savings and investment plan, in addition to a Federal retirement plan. For further information on this position contact Dr. Brian Kerr at 515-294-5993; Email at kerr@nsric.ars.usda.gov. Vacancy announcements and application information can be obtained by ARS DIAL-A-VACANCY at 301-504-1482, Janae Lentz at 515-663-7277 or at website <http://www.afm.ars.usda.gov/divisions/hrd/>. Applications in response to this ad must reference vacancy announcement number ARS-X5W-0182 and be postmarked by closing date of announcement. ❖

Equipment Wanted

PDP-12 Computer Wanted. I'm looking for a Digital Equipment Corporation PDP-12 lab computer, working or nonworking, to purchase for a computer restoration project. Do you know of one that's sitting somewhere idle and unused, or soon to be retired? If so, please contact O. Sharp at ohh@drizzle.com and let me know more about the machine's location and condition. I'll be happy to pay a fair price, and it'll have a good home. \$100 reward offered as thanks to whoever introduces me to the PDP-12 I end up buying.

FASEB Summer Research Conference New Insights in Polycystic Kidney Diseases: Molecular Pathways, Pathogenic Mechanisms, and Translational Applications

Conference Topics:

- The Functional Role of Cystoproteins in Epithelial Differentiation
- Epithelial Polarity, Transport, and Cell Signaling: The Role of Cystoproteins
- Cilia/Centrosomal Dysfunction and PKD Pathogenesis
- PKD Pathways: Lessons from Comparative Genomics
- PKD as a Complex Trait
- Other Cystic Diseases and Convergent Pathways
- PKD: Extra-Renal Disease
- Biomarkers for Disease Progression
- Innovative Targeting in PKD Therapeutics.

Dates: August 6-11, 2005 in Saxtons River, VT

Information: <http://src.faseb.org>

Letters to G. Edgar Folk

Maurice L. Kelley, Jr. writes: "A belated thank you for your note regarding my 80th birthday on June 29, 2004. I am pleased to report that I am doing well and continue to participate in the operations of the Gastrointestinal Motility Laboratory here at the Dartmouth Hitchcock Medical Center. It has been an honor and a privilege for me to have been a member of the American Physiology Society. Thank you once again for your interest. With best wishes and regards."

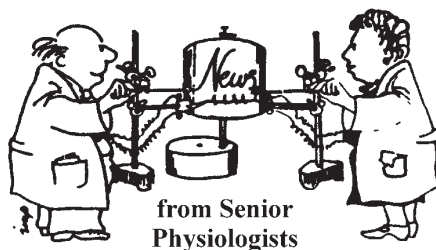
Hiroshi Kita writes: "Thank you for your letter recommending me to report what I am doing now. I have to apologize for a long interval between your letter and my reply. One of the reasons for the delay is my feeling of hesitation in writing a letter in this section among many distinguished physiologists."

"At the time of my retirement in March, 2003, I stopped my laboratory work on the mechanism for neurotransmitter release on cricket neuromuscular junctions in which we had been interested for about ten years."

"In Japan, we usually cannot keep a laboratory for research after a retirement age, which is determined by the regulation of each university or institution, so as to make space for a successor. It is also difficult for retired faculty members to get research grants, because there are many excellent young researchers seeking grants. Therefore, only work left to me is to complete papers on cricket neuromuscular junctions."

"During 1968 to 1976, I collaborated with Bill Van der Kloot and Ira S. Cohen at NYU and then SUNY at Stony Brook to work on the mechanism of the release of neurotransmitter mostly at frog neuromuscular junctions. Thanks to their warm friendship, my wife and I could spend happy days in Manhattan and Stony Brook where our only daughter was born. Their friendliness is a treasure in my life and I feel like the U.S. is my second native land."

"I think everyone wants to leave a proof or trace that shows he or she



lived on this earth. Biologically we can leave it by producing offsprings. But we further wish to leave a cultural, or civilized one that is, I think, more valuable. Fortunately we, physiologists, can do it by publishing papers in international journals, which are preserved forever as cultural human products in the libraries of universities and institutions all over the world. University people often say that sooner or later positions disappear and only papers go down to coming ages. Following the above-mentioned thought, we tried to send papers to first-class journals and some of them were published in such journals as *Journal of Physiology*, *Journal of Neurophysiology*, *Nature* and so on. In this respect, I feel a kind of self-satisfaction, although people think differently and have different views of value.

"My current plan is to study the history of physiology, especially neurophysiology, and the achievements of Leonardo da Vinci as a physiologist. I continue teaching physiology at a university of medical welfare and an institute of medical professions two or three times a week, depending on the semester as a part-time faculty member. To learn physiology with young people gives me a pleasure of life."

Paul Hill writes: "Thank you for your letter. I apologize for the delay in replying but having recently broken my ankle I have not been able to get to my computer easily until now."

"Apart from the fracture, I'm keeping fit and well. I took early retirement from the Department of Physiology of the University of Auckland here in New Zealand about 10 years ago after 10 years as its head. My wife and I came down here to the centre of the North Island where we

have a 10-acre property. Looking after this has kept me busy and active."

"I took up clinical practice again working part time in the casualty department of the small local hospital. That was a fairly steep learning curve! But I found the return to medicine rewarding."

"Until 2001 I also kept busy as the Executive Director of the body set up to plan and run the 34th IUPS Meeting in Christchurch in 2001. The most enjoyable part of that meeting for me was my involvement with young investigators. We were able to fully fund a substantial number from all over the world who would otherwise not have been able to attend the meeting. They were a delightful and lively group."

"Currently, I am no longer involved in physiological activities but still enjoy keeping in touch through the APS."

Abba Kastin writes: "I appreciate your invitation to discuss my life. Although you didn't ask me to do it while standing on one leg, I can condense the years into one page (in three brief sections)."

"In the professional part of my life, I have introduced several concepts in the peptide field. This section can be summarized by copying the printed citation that accompanied the last award I received:

'Abba Kastin was born in Ohio and educated at Harvard College and then Harvard Medical School. After starting his work on neuropeptides at NIH, he moved to Louisiana where he still resides. Dr. Kastin is an honorary member of seven medical societies outside of the United States, has received two honorary doctorates (1 USA and 1 foreign), and has won national and international awards. Author of over 800 papers, he has been listed among the 100 researchers most cited in the scientific literature (now almost 23,000 citations). He is Editor-in-Chief of *Peptides*: an International Journal and President of The International Neuropeptide Society. Dr. Kastin is honored for his numerous contributions in neuropeptide research.'

"My other interests, the second sec-

tion, have changed little over the years: As I've done since grade school, I continue to swim and play the viola. I also collect Melanesian art, most of it located in my home in New Orleans overlooking the lake, with several pieces at the New Orleans Museum of Art. I currently serve on the advisory board of the Louisiana Philharmonic Orchestra and Visual Arts Visiting Committee of Loyola University.

"The third and most exciting section for me involves my recent move. Beginning August 1, 2004, I accepted an Endowed Chair at the Pennington Biomedical Research Center in Baton Rouge where I live in this ideal environment during the week. Our lab is located in a new building with a 5-story glass atrium resembling that of a Hyatt hotel. We overlook a lake and a couple hundred acres with many trees. The staff not only try to be most helpful, but they have the ability to do so. I'm in the first year of one of my R01 NIH grants (1.8 percentile score), so I hope to continue my research on peptides and the blood-brain barrier for as long as possible. I'm very grateful for the good fortune that has enabled me to enjoy life so much and wish the same to all of you."

Hartmut Kirchheim writes: "Since during and after the christmas season I was pretty much involved with family reunions, my answer to your greetings for my 70th birthday is very late but my thanks are not less warm. Please transmit my thanks to the Senior Physiologists Committee.

"Since I am an old friend of Ulla and Jerry DiBona and have been visiting the University of Iowa several times, I looked at the homepage of the University and at your photograph, but I am not sure, whether we ever met at any of these occasions?

"Depending on the position held, some professors are allowed to stay until they are 68 years old, my retirement occurred as usual in Germany exactly after my 65th birthday with the year of 2000. The "Rektor" of the University of Heidelberg asked me to go on serving as his "Prorektor" (pro-vice chancellor for Medicine), but the ministry of education of Baden-Württemberg decided that there

should be no exemption to the rule, so they considered with over 65 years I was too old for that job. So, to be honest, I told my American friends and colleagues that I have been retired.

"At first I considered, to follow the invitation of several American colleagues to come to the States for some time for research activities and tutoring students, but unfortunately my family situation did not allow this: My wife, who suffers from a late form (primary chronic progressive) of multiple sclerosis since 1990 increasingly needs help and above that has stronger family bonds (a 91-year-old mother) than I have, so we decided to stay in Heidelberg.

"Beside learning household skills now ('old dogs can learn new tricks'), I did go on publishing until 2003. As a member of the editorial board of *AJP (Int.&Comp. Physiology)* I am still busy as a reviewer for this and occasionally for several other European Journals. Above that I am busy in the editorial board of a multidisciplinary research magazine (Ruperto-Carola) of the University of Heidelberg. Furthermore it is fun to keep intensive contacts to my former students in Germany and many friends in the United States.

"Since I lost my major hobby (work in a laboratory) I have more time now to play basketball in a senior sports group and participate in the University seminar activities especially in fields outside of physiology.

"With warm regards and many thanks for your greetings."

Gerhard Malnic writes: "Thank you for your invitation to write about my life at the opportunity of reaching the age of 70, which I did in September 2003. I am answering your kind letter only now stimulated by reading the section on 'Senior Physiologists' News' in *The Physiologist*. Here in Brazil, reaching 70 leads to mandatory retirement, but my Department invited me to continue working in my laboratory, which I was very happy to do. The Brazilian Senate has passed recently a law to allow people in the Universities to retire only at 75, which still has to be approved by Congress (equivalent to the American House of

Representatives), which however will not reach me. But it is also very good to go on with laboratory work without worrying about teaching and administration. I still have two graduate students working for their PhD, which should finish their work this year (2005). Then there are a few younger colleagues with their students in our group, which creates an attractive environment. It is also stimulating to be able to follow the work of my younger daughter, Bettina, who works in Biochemistry at our University, and is struggling to establish herself as a good scientist. Although she has to cope with a lot of competition, I believe that the life of a scientist these days is easier than during the days when I started a lab, since support for Science has improved a lot since then in Brazil, particularly in the State of Sao Paulo, where we have an efficient supporting agency. Bettina did her post-doc training with Linda Buck at Harvard, last year's Nobelist in Physiology, and was invited by her to come to the ceremony in Stockholm, obviously a very exciting occasion.

"I am working presently in two areas, one of them renal "in vivo" micropuncture and microperfusion to investigate mechanisms of potassium and hydrogen excretion, an area which I started during my post-doc in the early sixties of last century (!) with Gerhard Giebisch at Cornell in New York and later at Yale. This collaboration is going on, and last year I spent some time at Yale to study potassium excretion in Romk (a potassium channel) knock-out mice, which was possible due to my experience in "in vivo" studies, which not so many Physiologists are doing today, as very well analysed by Allen Cowley in the present issue of *The Physiologist*. The other area concerns studies on intracellular pH regulation in cells in culture, using fluorescence microscopy, which we have installed in the last years in our lab, with my long-time collaborator Margarida de Mello-Aires. So, as long as health permits, I plan to still have a few years of productive work, passing along some of my experience to a younger generation. At the same time, enjoying life with my wife Margit and our dog, we spend some

time at our little beach cottage near Sao Paulo, especially when my older daughter Beatriz, a fine music teacher and performer, who lives in southern Florida, visits us with her two daughters, our grandchildren."

Letter to Martin Frank

Paola S. Timiras writes: "It gives me great pleasure to communicate to my fellow Senior Physiologists some events concerning physiology at the University of California, Berkeley (UCB) and some of my own activities. First, some bad news: the Department of Physiology, founded around 1900 by Jacques Loeb and then extended to include Anatomy, was disestablished in 1989 and the members of the department were incorporated in the Department of Molecular and Cell Biology (as was my case) or that of Integrative Biology. The one-year course of Mammalian and Human Physiology that Dr Walter J. Freeman and I had taught for many years was cancelled. The good news is that, after my official retirement in 1994, I was "recalled" to continue teaching my two other courses, Physiology of Human Development and Physiology of the Aging Process, which remain popular to this day.

"UCB offers a unique challenge to research and training in physiology. It provides the opportunity to integrate various areas of biology currently flourishing on our campus - from cell and molecular biology to public health - without the strictures, but also unfortunately without the eventual support, of a medical school curriculum. This integrative role is well rooted in physiological tradition but it is often difficult to achieve. My major focus is to teach my two courses on development and aging on a multidisciplinary basis, the physiological approach serving as an effective link integrating the various biomedical disciplines. This approach has inspired the writing of several books on these two topics, the latest being the 3rd edition of *Physiological Basis of Aging and Geriatrics* (CRC Press, 2003) and, written in French, *Stress, Adaptation, Longévité*, (Editions Economica, 2004). A similar multidis-

ciplinary approach is also emphasized in a five-year NIH grant (NIA Academic Career Leadership Award) which I received in 2001 to promote integrative research and education in aging and longevity at UCB.

"My research has followed a more tortuous path than my teaching. When I first retired, I was allowed to retain a small laboratory space on the merit of my teaching two classes and of still having funds for research and students eager to be trained. However, after many transfers to progressively smaller quarters, I was informed that laboratory space was no longer available to me, given the pressure of providing space for new faculty. Indeed, the establishment of policy for emeriti laboratory space is currently being debated on our campus. I was lucky to have the support of colleagues who helped me to obtain laboratory space close to campus (at the Lawrence Berkeley National Laboratory) and of students, whose collaboration reflects their excellent academic preparation and maturity as well as a source of personal satisfaction.

"A first group of experiments shows that in the mouse hypothalamus, caloric restriction reduces the loss of estrogen receptors with aging. Given the association between suppression of Insulin/IGF-1 receptors and longevity in invertebrates and mice, we are currently studying the effects of caloric restriction on the mapping of IGF-1 receptors in the hypothalamus. In another group of experiments, growth factors added to neuroglia cultures not only stimulated cell proliferation, as expected, but also produced progressive de-differentiation of both astrocytes and oligodendrocytes and their transformation into 'precursor' cells. We are now investigating under which conditions these precursor cells may give rise to neuroblasts, as suggested by other investigators. A brief presentation of these studies can be found at: <http://www.citeulike.org/user/ladygoat/article/72294>."

Letters to Gabor Kaley

Ed E. Daniel writes: "Thank you for writing and asking what I am doing now. First let me say that I am in gen-

eral good health. In 1945, while in the US 63 Inf. Div. in Germany, I stepped on a mine along with two others when German fire drove us into a mine field. This resulted in a lower left leg prosthesis which has hardly limited my activities. However, I am a severe asthmatic, but that is now well-controlled.

"After getting my PhD in Pharmacology at the University of Utah in 1952, I moved to Canada under pressure from the McCarthy-McCarran paranoia about peace activists like me. It was a move I have never regretted. My first job was at the University of British Columbia in Vancouver, where I stayed until 1962.

"I recently returned to Edmonton, Alberta and the University of Alberta, where I became the first Chair of the new Department of Pharmacology in 1962. I was at McMaster University from 1975 until 2001 when I returned to Alberta. I had three goals: 1) get out of the air pollution of Hamilton and Southern Ontario; 2) continue with research and teaching which I enjoyed very much, but which were increasingly difficult at McMaster; and 3) move closer to my family, all of whom are in Alberta or British Columbia.

"The move was a great success and I am now Adjunct Professor of Pharmacology at the University here. I have a laboratory, even eight Graduate Student, who will, I think, be the last PhDs that I train. I try to be environmentally careful and use public transit to and from the University to keep Edmonton with liveable air pollution despite the high proportion of SUVs with single passengers.

"At McMaster, I became involved in Problem Based learning (PBL) and decided that it was the best way to educate students of an types. PBL is not so well established at the University of Alberta as it was at McMaster. I started an Honours/Graduate course on Drug Therapeutics using PBL, which has become popular with students and is fun to tutor. It also requires me to keep up my knowledge of drug usage using evidence-based medicine.

"My research is going along well. We have just started study of the effects of

caveolin 1 knockout on gut function and we are continuing study of the pacing systems of the gut and the origins and transmission of pacing activities. We have published several manuscripts in the last year in the *American Journal of Physiology, Gastrointestinal and Liver Physiology*.

"I remain a committed peace activist and have recently been very active against Canadian involvement in the war on Iraq and most recently in keeping Canada out of the so-called Ballistic Missile Defense system. We are celebrating that apparent victory now. My wife is a member of the Raging Grannies, a fun group that dress up in their Granny outfits and sing at protests. Canada has a multicultural society and this makes social and cultural life lively and fun.

"My wife's family all live in Florida and we have a condominium there, which we visit every year. We are planning several travels in 2005; to Sicily, to the Yucatan and to visit family. Clearly life is full and remains much fun. Thank you for asking about it."

John R. Pappenheimer writes: "I don't suppose that there are many surviving members of the American Physiological Society who were born in 1915—Knut Schmidt-Nielsen and I are among them.

"My most recent original research paper was published in *Journal of Physiology* (London) in December of 2003 under the title Role of villus microcirculation in intestinal absorption of glucose: coupling of epithelial with endothelial transport. It comes 67 years after the first that was published in 1936 with Jeffries Wyman in *J.Amer. Chem.Soc.* under the title "The surface tension of aqueous solutions of dipolar ions". Editors of *J.Physiol.* evidently liked the 2003 paper published with Charles Michel because they asked for a watered-down, non-technical version for publication as a feature article in *Physiology News* in 2004."

"In 2004, also, two of my papers on

Capillary Permeability that were originally published in *Amer. J. Physiol* in 1948 and in 1951 were republished as part of the "Legacy Series" and our early papers on Neurohumoral Regulation of Sleep in *PNAS* and in *J.Physiol.* were given a "Pioneer Award" by the International Society for Sleep Research. Of course, I am pleased that these contributions are still cited 40-50 years after their publication.

"I now reside in an assisted living environment isolated from laboratories and I can promise not to burden referees of physiological journals with any more manuscripts. My scientific activities will henceforth be to read chapter by chapter through *The Molecular Biology of the Cell* by Bruce Alberts & Co. However, the residual storage capacity of my 90-year-old memory bank is now so small that as I read Chapter (N+1) I forget the contents of Chapter N. Never mind, I find the story thrilling and I can understand why the Harvard Medical School decided to dismantle its famous 120 year old Department of Physiology in favor of Cell Biology. I have an uneasy feeling, however, that some of the 20 or so full Professors in the replacement department would be unable to explain to a 12 year old child how urine is formed, how body temperature is regulated, how the composition of body fluids is maintained approximately constant, how breathing is linked to exercise, etc. In fact, I am very glad not to be one of those cloned investigators who dissect a tiny piece of DNA in a cloned cubicle of a lab using cloned (very expensive) instruments and who publish results in three-page papers in *PNAS* having acronymal titles with 10 co-authors

"nuf said."

Letter to Alan Hofmann

Mordecai Popovtzer writes: Still active in research and paper/chapter writing. Retired as chief of Nephrology at Temple University in

Philadelphia, and recently Chief of Nephrology at Hadassah, Jerusalem. Still active member in American Society of Clinical Investigation ("YOUNG TURKS"). I am concerned that physiologists today know more and more about less and less. Adopting and mastering new advanced technologies takes precedence over original intellectual creativity. Still confronting biased referees that control the leading journals. In most cases there is obvious inevitable conflict of interest as the referees are concerned about competition and their own research being challenged. The truth however is pervasive and eventually ends up in less prestigious journals. When I challenged the concept that NaPi-IIa might not be the only major tubular cotransporter it obviously was rated down, but eventually it was published in *Eur J Endocrinol* (vide last ref in CV). I would strongly advise younger people not to give up if their convictions are based on truth.

Letter to Beverly Bishop

Horacio E. Cingolani writes: "I am so sorry for the delay in answering your kind letter. Maybe the delay was due to a Freudian slip by which I would like to negate the fact that I am 70 years old.

"Yes, I am continuing my scientific activity in spite of the fact that I am not any longer the Chairman and Director of the Cardiovascular Research Center. I am proud that my former postdoctoral fellow, Alicia Mattiazzi, is the Director of the Center. Everybody was very kind with me; I am in the same office (this bothers me a little bit) with a part-time secretary, and surrounded by 'empty spaces' that I am filling with research and by forming part of the Editorial Board of *Circulation Research* and *Journal of Molecular and Cellular Cardiology*.

"Again, it is my pleasure to have your letter on behalf of the American Physiological Society." ❖

Call for 2005 AAMC Awards Nominations

Each year at its annual meeting the Association of American Medical Colleges presents its major awards honoring individuals and programs making significant contributions to our community. Nominations for these awards are currently being solicited:

The Abraham Flexner Award for Distinguished Service to Medical Education is granted annually to an individual for extraordinary contributions to the medical education community. For information, contact 202-828-

0472. Nomination Deadline: **May 6, 2005.**

The Alpha Omega Alpha Robert J. Glaser Distinguished Teacher Awards recognize the significant contributions to medical education made by gifted teachers. For information, contact 202-828-0680. Nomination Deadline: **May 31, 2005.**

The Award for Distinguished Research in the Biomedical Sciences honors outstanding biomedical research related to health and disease.

For information, contact 202-828-0472. Nomination Deadline: **May 6, 2005.**

The David E. Rogers Award is granted annually to a member of a medical school faculty who has made major contributions to improving the health and health care of the American people. For information, contact 202-828-0472. Nomination Deadline: **May 6, 2005.** ❖

15th Annual Clinical Care of the Patient with HIV Infection

April 18-19, 2005
Renaissance Harborplace Hotel
Baltimore, MD

Presented by: Johns Hopkins University School of Medicine

This course is to provide an up-to-date overview of the clinical care of HIV-infected patients for practicing clinicians and other health professionals. The course will include discussions of HIV epidemiology, clinical management and treatment, and longitudinal care. The material will be clinically-oriented with a focus on the latest pertinent data from clinical trials and basic research. Participants can expect to become more familiar with the primary care of the patient with HIV infection and the management of clinical complications of HIV disease.

Objectives:

To describe the epidemiology and pathogenesis of HIV infection;

To be familiar with current anti-retroviral therapy for HIV infection and recognize potential new antiretroviral treatment modalities;

To initiate chemoprophylaxis for opportunistic infections;

To diagnose and manage opportunistic complications of HIV infection;

To recognize neuropsychiatric complications of HIV infection;

To recognize manifestations of tuberculosis and sexually transmitted diseases in the context of HIV infection.

Registration:

April 18, 2005 7:30-8:15 am
Fifth Floor Foyer; Renaissance Harborplace Hotel; 202 East Pratt Street; Baltimore, MD 21202

Registration Deadline: April 11, 2005

Fees: Physicians \$425
Residents*, Fellows*, Nurses and Other Health Professionals
*with verification of status \$225

The Johns Hopkins University designates this continuing medical education activity for a maximum of 14.25 category I credits toward the AMA Physician's Recognition Award. Each physician should claim only those credits that he/she actually spent in the educational activity.

Contact: Office of Continuing Education; Johns Hopkins University; Turner 20, 720 Rutland Avenue; Baltimore, MD 21205-2195; Tel.: 410-955-2959; Fax: 410-955-0807; Email: cmenet@jhmi.edu; <http://www.hopkinscme.net>. ❖

Integration of Complementary and Alternative Medicine into Clinical Practice: Evidence-Based Medicine

June 8-10 2005
Johns Hopkins University School of Medicine; Baltimore, MD

Complementary and Alternative Medicine (CAM) has been used for centuries to treat a wide variety of ailments. Recently, the American public is opting to use CAM in lieu, or along with, conventional medicine, fostering the outgrowth of a multi-billion dollar industry. The course is directed towards oncologists, internists, primary-care providers, orthopaedists, rheumatologists, CAM practitioners and students interested in these fields. It is imperative for health-care

workers to recognize this growing demand for CAM and to identify the different modalities that have therapeutic and/or palliative value. Technological advancement in preclinical and clinical studies is beginning to offer science-based CAM strategies. This symposium provides an overview of the approaches to CAM and its application in clinical practice. It also presents state-of-the-art technology and models to evaluate the safety, efficacy and utility of these CAM modalities for clinical use.

Fees: Physicians \$450
Allied Health Professionals \$400

The Johns Hopkins University designates this continuing medical education activity for a maximum of 23 category I credits toward the AMA Physician's Recognition Award. Each physician should claim only those credits that he/she actually spent in the educational activity.

Contact: Office of Continuing Education; Johns Hopkins University School of Medicine; Turner 20, 720 Rutland Avenue; Baltimore, MD 21205-2195; Tel.: 410-955-2959; Fax: 410-955-0807; Email: cmenet@jhmi.edu; <http://www.hopkinscme.net>. ❖

May 1-5

Workshop on Phenotyping New Mouse Models For Heart, Lung, Blood and Sleep Disorders sponsored by The Jackson Laboratory, and supported by the NHLBI, Bar Harbor, ME. *Information:* Erin McDevitt, Event Coordinator, The Jackson Laboratory, Courses and Conferences, 600 Main Street, Bar Harbor, ME 04609-1500. Tel: 207-288-6659; Fax: 207-288-6080; Internet: <http://www.jax.org/courses/>.

May 9-12

16th Conference for the International Society of Arterial Chemoreception (ISAC), Sendai, JAPAN. *Information:* Internet: <http://www.isac-web.org/files/sendai1.htm>.

May 9-13

The Association Francaise contre les Myopathies Scientific Meeting, Nantes, France. *Information:* Internet: <http://www.myology2005.com>.

May 12-13

Stem Cell Strategies 2005, Anaheim, CA. *Information:* Internet: <http://www.nsti.org/StemCellStrategies/>.

May 22-26

15th Humans in Space Symposium, organized by the International Academy of Astronautics, Graz / Austria. *Information:* Internet: <http://www.uni-graz.at/space2005/>.

May 31-June 4

International symposium on Mechanisms of Vasodilatation, Antwerp, Belgium. *Information:* Internet: <http://www.mechanisms-antwerp.be/>.

June 16-22

Minority and Indigenous Fellows Program, Philadelphia, PA. *Information:* http://www.biotechinstitute.org/documents/Fellowsapp_PHILA_final.pdf.

June 18-23

19th American Peptide Symposium: Understanding Biology Using Peptides, San Diego, CA. *Information:* <http://www.AmPepSoc.org>.

June 24-29

31st FEBS Congress, Molecules in Health and Disease, Istanbul, Turkey. *Information:* <http://www.febs2006.org/>.

June 25-July 2

Vascular Endothelium: Translating Discoveries into Public Health Practice, Crete, Greece. *Information:* John D. Catravas, Email: jcatrava@mcg.edu; Internet: <http://www.endothelium.org>.

June 26-29

From Genetic to Energetic: Heart Metabolism in Health and Disease, Oxford, United Kingdom. *Information:* Internet: <http://www.heartmetabolism.org>.

June 26-July 1

Oculomotor System Biology, Lewiston, ME. *Information:* Raj Gandhi, Email: neg8@pitt.edu; Internet: <http://www.grc.org>.

June 27-30

14th International Scientific Congress CNIC 2005, 40 Years at the Service of Science and Technology, Havana, Cuba. *Information:* Migdalia Luna Cisneros, Professional Congress Organizer, Havana International Conference Center, Apartado Postal 16046. Tel: 537- 285199 y 226011-19; Fax: 287996, 283470 y 238382; Email: migdalia@palco.cu; Internet: <http://www.complejopalco.com>.

June-August

FASEB Summer Research Conferences, Colorado, Georgia, Vermont, Arizona, and Italy. *Information:* FASEB Summer Resarch Conferences, 9650 Rockville Pike, Bethesda, MD 20814. Tel: 301-634-7010; fax: 301-634-7007. Internet: <http://src.faseb.org/>.

June-August

Woods Hole Marine Biological Laboratory and Cold Spring Harbor Laboratory Course Fellowships, Woods Hole MA and Cold Spring Harbor, NY. *Information:* <http://www.iac-usnc.org/MBLcoursefellowships.html>.