Collins Nominated to Lead NIH

Washington, DC, is a city incapable of keeping secrets. So it was no surprise when President Obama nominated Francis Collins to be the next director of the U.S. National Institutes of Health (NIH). Previously, Collins served as director of the National Human Genome Research Institute until August 1, 2008.

Collins may be best known to the American public as a leader of the U.S. government’s successful effort to sequence the human genome. He was the keynote speaker at the 2008 ASCB Annual Meeting.

If Collins’ nomination is approved by the Senate, he will replace Raynard S. Kington, who has served as acting NIH director since the departure of Elias A. Zerhouni on October 31, 2008.

To listen to Collins’ keynote address, go to www.ascb.org/files/2008/1800-ascb-134-121308.wmv.

—Kevin M. Wilson

2009 E.E. Just Lecturer Is Jerrel Louis Yakel

The ASCB Minorities Affairs Committee has named Jerrel Louis Yakel to present the 16th annual E.E. Just Lecture on December 6, 2009, at the ASCB Annual Meeting in San Diego. Yakel is senior scientist and head of the Ion Channel Physiology Group, Laboratory of Neurobiology, National Institute of Environmental Health Sciences, National Institutes of Health. He is also an adjunct assistant professor in the Department of Neurobiology at Duke University Medical Center and a Fellow of the American Association for the Advancement of Science.

Yakel’s research is directed toward understanding the role of the nicotinic acetylcholine receptor and brain function, as well as how dysfunction in this receptor leads to various neurodegenerative diseases and addiction. In particular his work is focused on how this receptor may affect cognitive processes, and how this relates to Alzheimer’s disease. He also studies the interaction of apolipoprotein E with the α7 nicotinic acetylcholine receptor and dendritic calcium signaling due to activation of α7-containing nicotinic acetylcholine receptors in rat hippocampal neurons. Yakel uses various electrophysiological and voltage-sensitive dye recording techniques to study hippocampal excitability and circuits regulated by nicotinic receptor activation to gain insights into disease mechanisms.

Not Too Late for “Building the Body Plan” Meeting

New Late Abstract Deadline* for the ASCB/JSCB/RIKEN CDB Meeting in Kyoto, Japan: August 20, 2009

Register for the meeting by August 20 at www.ascb.org/japan2009.

*Note: Late abstracts will not be included in the program book but will be included in the onsite addendum. Late abstracts may also be viewed online at the meeting website (see above).
**ASCB’s International Affairs Committee Meets Virtually**

To reduce expenses and member travel, the International Affairs Committee (IAC) has held three dynamic conference calls in 2009 to date. All three included fruitful discussions of IAC’s major projects:

**IAC Roundtable**

The IAC Roundtable—to be held again this year on December 5 at ASCB’s Annual Meeting—will include IAC members, Council members, and U.S. and international graduate student and postdoc meeting registrants. Discussion will encompass among other topics:

- Establishing a U.S./international “buddy system” during the Annual Meeting
- Exploring interest in an international student mentoring program
- Discussing similarities and differences in U.S. and international Ph.D. training

**Cell Biology Course in Ghana, Africa**

This wildly popular two-week course—held July 13–24 in Accra—offered African students 21 lectures given by African, UK, and U.S. scientists; four iBioSeminars; four journal clubs; five lab exercises—using fluorescence microscopes donated by Olympus America and Oxford University; four interactive practicals; and three sessions for students to present proposals they’ve worked on throughout the course. This will be the third such course held in Africa supported by a grant from the Carnegie Corporation of New York. ASCB past president Dick McIntosh is the PI.

**ASCB/JSCB/RIKEN CDB 2009 Summer Meeting**

Thanks to partners Japanese Society for Cell Biology and RIKEN Center for Developmental Biology, and successful fundraising, the meeting, “Building the Body Plan: How Cell Adhesion, Signaling and Cytoskeleton Regulation Shape Morphogenesis” is sure to be popular. The meeting will be held September 21–23 in Kyoto, Japan. Registration closes August 20; register now at www.ascb.org/Japan2009/registration/registration.cfm.

**Other Projects in Process**

Projects under discussion include IAC’s Newsletter column, consideration of sites and topics for future Summer/Fall Meetings, recruitment of IAC Associates, expansion of iBioSeminars, and monitoring legislation on visas for international travelers to the U.S. ■

---

**Guan, Souza, and Pichler to Receive MBC Paper of the Year Award**

The Molecular Biology of the Cell (MBC) Editorial Board has named three recipients of the 18th annual MBC Paper of the Year Award: Xue Li Guan, of the Department of Biochemistry and Department of Biological Sciences, Yong Loo Lin School of Medicine, National University of Singapore; Cleiton M. Souza, of the Department of Biochemistry, University of Geneva; and Harald Pichler, of the Department of Biochemistry, University of Geneva, and the Institute of Molecular Biotechnology, Graz University of Technology. The three contributed equally as first authors to the article “Functional Interactions between Sphingolipids and Sterols in Biological Membranes Regulating Cell Physiology” (Mol Biol Cell 20, 2083–2095). Research for the article was conducted in the laboratories of corresponding authors Markus R. Wenk and Howard Riezman.

Guan will present her research at a minisymposium at the ASCB Annual Meeting in San Diego this December. ■

---

*---Cheryl Lehr*
Ongoing activities were the focus of the ASCB Minorities Affairs Committee (MAC) annual spring/summer meeting, held this year in Chicago, IL, on June 20, 2009. The Committee, under the leadership of Chair Anthony DePass, discussed programs funded by a National Institutes of Health (NIH)/National Institute of General Medical Sciences (NIGMS) Minority Access to Research Careers (MARC) grant.

The MAC is committed to furthering career development for minority students and early career scientists. Toward that end the MAC sponsors and supports the following programs for underrepresented minorities:

- Travel awards to the ASCB Annual Meeting
- Visiting Professorship Awards
- Linkage Fellow Awards at minority-serving institutions
- Poster sessions and MAC Awards Luncheon at the ASCB Annual Meeting
- Mentoring Symposium at the ASCB Annual Meeting
- Funding for summer courses at Marine Biological and Friday Harbor Laboratories
- Junior Faculty and Postdoctoral Fellows Career Development Workshop in the summer and at the ASCB Annual Meeting
- Support and collaborations with the Annual Biomedical Research Conference for Minority Students (ABRCMS) and the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)
- Joint MAC/educational resources booth at the ASCB Annual Meeting
- E.E. Just Lectureship at the ASCB Annual Meeting (See page 1.)
- Annual Conference on Understanding Interventions that Encourage Minorities to Pursue Research Careers

Members in attendance at the MAC meeting included DePass, David Asai, Renato Aguilera, Michael Leibowitz, Veronica Lopez, Sandra Murray, and Peter Satir. ASCB Executive Director Joan Goldberg and MAC Senior Manager Deborah McCall were also in attendance. Members in attendance by phone included Tama Hasson, Laura Robles, and Sue Shafer.

MAC Grant Renewal
A major topic of discussion at the meeting was the status of the current MAC MARC grant renewal. DePass reported that his conversations with the NIH noted that the MAC needed to reduce the budget originally submitted. The Committee reviewed the MARC-funded programs and decided where to cut the submitted budget. (DePass then worked with McCall to submit the revised budget to the NIH. It was then approved.)

MAC Programs
The MAC discussed all of its programs and was pleased with their growth and continuity. Evaluations of the programs have been outstanding. The MAC also worked on finalizing plans for its activities at the upcoming 2009 ASCB Annual Meeting in San Diego. The Committee also discussed its plans for exhibiting at ABRCMS and the SACNAS annual meeting.

—Deborah McCall
Focusing on career development, the Minorities Affairs Committee (MAC) hosted its Fourth Annual Junior Faculty and Postdoctoral Fellows Career Development Workshop on June 18–19, 2009, in Chicago, IL. The two-day workshop was a hit, with participants noting its comprehensive nature and value.

One participant stated that, “I do not take it lightly when I get a chance to network with other postdoctoral fellows and junior faculty. I am thankful for this opportunity.”

The workshop was designed to provide information on publications, grant writing, mentoring, time management, professional development, and other topics critical to junior faculty and postdoctoral fellows. Participants were invited to bring a manuscript or grant for review by one of the speakers or MAC members.

Speakers and planners this year included MAC Chair Anthony DePass, Assistant Vice President for Faculty Research, Long Island University; Renato Aguilera, MAC member and Professor and Director of the Graduate Program in Biology, University of Texas, El Paso; Wilfred Denetclaw, Jr., Associate Professor, San Francisco State University; Paul Fisher, Professor and Chair, Virginia Commonwealth University School of Medicine; Deborah Harmon Hines, MAC member and Vice Provost and Professor, University of Massachusetts Medical School; Michael Leibowitz, MAC member and Executive Director of Graduate Academic Diversity, University of Medicine and Dentistry, New Jersey–Graduate School of Biomedical Sciences; Rick McGee, Associate Dean, Faculty Affairs, Northwestern University; and Sandra Murray, MAC member and Professor, University of Pittsburgh School of Medicine.

Workshop participants included:
- Oluwole Ariyo, Allen University
- Manuel Alejandro Barbieri, Florida International University
- Miriam E. Bucheli, Harvard Medical School
- Edward Butler, Eastern Arizona College
- Judy L. Cannon, University of Chicago
- S. Chakra Chennubhotla, University of Pittsburgh
- Roslyn Crowder, University of Pennsylvania
- John H. Dubinion, University of Mississippi Medical Center
- Rajshekhar Gaji, University of Michigan, Ann Arbor
- O’Neil W. Guthrie, Duke University
- Shanta Hinton, Hampton University
- Alexei Iakhiaev, Texas College
- Dong H. Kwon, Long Island University
- Yvette Langdon, University of Pennsylvania
- Veronica Lopez, Pennsylvania State University
- Joaquin N. Lugo, Jr., Baylor College of Medicine
- Rafael Luna, Harvard Medical School
- Joy L. Marshall, Prairie View A&M University
- Patrick Martin, North Carolina A&T State University
- Elizabeth Mihalcik, Albany State University
- Ghislaine Mayer, Virginia Commonwealth University
- Mahasin Osman, Cornell University
- Octavia Peck-Palmer, University of Pittsburgh
- Yvette R. Pittman, National Institute of Child Health and Human Development, NIH
- Maria S. Santisteban, University of North Carolina, Pembroke
- Ramon Scharbaai-Vazquez, San Juan Bautista School of Medicine
- Carl Sims, Youngstown State University
- Oluseyi Vanderpye, Albany State University
- Selwyn Williams, New York City College of Technology
- Sharifia Wills, Johns Hopkins School of Medicine
- Velinda Worlaix, University of North Carolina, Pembroke

—Deborah McCall
Awardees Selected for ASCB MAC
Summer Visiting Professorship

The ASCB Minorities Affairs Committee (MAC) is pleased to sponsor 10 scientists for collaborative research with host scientists this summer. The MAC Visiting Professors program is supported by a National Institutes of Health/National Institute of General Medical Sciences Minority Access to Research Careers (MARC) grant. The program’s major purpose is to provide research support for professors at minority-serving institutions to work in the laboratories of members of the ASCB for an eight- to 10-week period during the summer.

The 10 Visiting Professors for 2009 and their Host Scientists are listed below:

- **Visiting Scientist:** Cindy Jo Arrigo, New Jersey City University  
  **Host Scientist:** Mark D. Rose, Princeton University

- **Visiting Scientist:** Manuel Alejandro Barbieri, Florida International University  
  **Host Scientist:** David Lambright, University of Massachusetts Medical School, Worcester

- **Visiting Scientist:** Edward Butler, Eastern Arizona College  
  **Host Scientist:** Sheila McCormick, Plant Gene Expression Center, USDA, and University of California, Berkeley

- **Visiting Scientist:** Alexei Iakhiaev, Texas College  
  **Host Scientist:** Pierre F. Neuenschwander, University of Texas Health Science Center, Tyler

- **Visiting Scientist:** Kimberly Jackson, Spelman College  
  **Host Scientist:** Rukiya Van Dross, East Carolina University

- **Visiting Scientist:** Quincy Quick, Grambling State University  
  **Host Scientist:** Omar Skalli, Louisiana State University

- **Visiting Scientist:** Joy Marshall, Prairie View A&M University  
  **Host Scientist:** Kendal D. Hirschi, Baylor College of Medicine

- **Visiting Scientist:** Nwadiuto Ediobu, Florida Atlantic University  
  **Host Scientist:** Patricia L. Morris, Rockefeller University

- **Visiting Scientist:** Thomas Onorato, LaGuardia Community College/City University of New York  
  **Host Scientist:** M. Mitchell Smith, University of Virginia Health System

- **Visiting Scientist:** Quincy Quick, Eastern Arizona College  
  **Host Scientist:** Omar Skalli, Louisiana State University

- **Visiting Scientist:** Janet Rollins, College of Mount Saint Vincent  
  **Host Scientist:** Kendal D. Hirschi, Baylor College of Medicine

- **Visiting Scientist:** Maria S. Santisteban, University of North Carolina, Pembroke  
  **Host Scientist:** M. Mitchell Smith, University of Virginia Health System

- **Visiting Scientist:** Selwyn Williams, New York City College of Technology, City University of New York  
  **Host Scientist:** Jean E. Schwarzbauer, Princeton University

—Deborah McCall

Awardees Selected for ASCB MAC
Linkage Fellows Program

The ASCB Minorities Affairs Committee (MAC) is pleased to announce that eight scientists have been selected to serve as Linkage Fellows. This program provides funding for Fellows to support outreach and activities that promote cell biology at their home institutions. The major goal of this program is to increase participation of faculty from minority-serving institutions to “serve as a link between the institution, its students, faculty, administration, and the ASCB MAC.” The Linkage Fellows Program is supported by a National Institutes of Health/National Institute of General Medical Sciences Minority Access to Research Careers (MARC) grant.

The Linkage Fellows Program acknowledges all past Fellows as alumni. Alumni are encouraged to remain in the MAC community and continue to serve as that important link between their institutions and the MAC.

The eight scientists selected for funding for 2009 are:

- **Julie Dutil**, Ponce School of Medicine
- **Samuel Eguae**, Paul Quinn College
- **Nwadiuto Ediobu**, Florida Atlantic University
- **Fran Norflus**, Clayton State University
- **Thomas Onorato**, LaGuardia Community College/City University of New York
- **R. Renee Reams**, Florida A&M University
- **Oluseyi Vanderpuye**, Albany State University
- **Velinda Woriax**, University of North Carolina, Pembroke

—Deborah McCall
Get Ready to Meet in California!

Anaheim Awaits
April 24–28, 2010

www.asbmb.org/meeting2010

Travel Awards and
Abstract Submission
Deadline:
November 4th, 2009

Registration Open
September 2009
The scarcity of women among the tenured faculty of elite research universities, especially in mathematics and related fields, received much attention after January 2005. That’s when then-president of Harvard Lawrence Summers speculated about reasons for its continuing existence. Speaking at the National Bureau of Economic Research “Conference on Diversifying the Science & Engineering Workforce,” Summers posited “that in the special case of science and engineering, there are issues of intrinsic aptitude, and particularly of the variability of aptitude, and that those considerations are reinforced by what are in fact lesser factors involving socialization and continuing discrimination… [Thus,] even small differences in the standard deviation will translate into very large differences in the available pool substantially out…[leading to] different availability of aptitude at the high end.”1

I initially learned about Summers’ remarks and the resulting controversy through the lay news media. Although I am a biochemist and molecular virologist by vocation, I also happen to be the parent of a young adult who excels in mathematics at the one-in-a-million level. Through my son’s phenomenal success in extremely difficult mathematics competitions, I had met folks who could help me gain access to data about children from throughout the world who possess profound talent in mathematical problem solving. Over the subsequent three years, I gradually gathered data that could be used to test the validity of Summers’ speculation. These data were published in fall 2008 in Notices of the American Mathematical Society.2

Nature vs. Nurture
Summers was referring, perhaps unconsciously, to the “greater male variability hypothesis,” originally proposed by Ellis in 1894. Greater male variability in mathematics performance has been observed in many countries throughout the world.3 Many people assume it is a consequence of innate biological differences between the sexes in aptitude for mathematics. However, in a recent review of contemporary literature on gender, culture, and mathematics performance that I coauthored with Janet S. Hyde, professor of psychology at the University of Wisconsin–Madison, we conclude that this assumption is false.4 Rather, the scarcity of outstanding women in mathematics and, by inference, other science, technology, and engineering fields is largely due to changeable sociocultural, educational, and other environmental factors.

Inadequate Nurture
Numerous findings indicate that inadequate nurture, not nature, is the primary reason many fewer females than males are identified as excelling in mathematics at the high and highest levels. These include:

■ The variability in the distribution of scores on standardized mathematics examinations such as the Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS) is similar between girls and boys in some countries, including Denmark and The Netherlands. Girls even exhibit significantly greater variability than boys in Indonesia. These facts directly contradict the assumption that greater male variability in mathematics performance is primarily due to innate biological differences between the sexes.

■ While significantly more high school-age white boys than girls in the U.S. are identified as scoring above the 99th percentile in math performance on standardized tests such as the 2003 PISA, this ratio is essentially unity in the UK and Thailand, and for...
Asian-Americans in Minnesota. In Iceland, even more girls than boys are identified as excelling in mathematics at this high level.

- Benbow and Stanley originally reported a 13:1 boy:girl ratio among pre-teens scoring 700 or above on the SAT I in their Study of Mathematically Precocious Youth in the 1970s. However, this ratio dropped to 2.8:1 by 2005.

- Although women accounted for only 5% of mathematics Ph.D.s awarded in the 1950s and 1960s in the U.S., their numbers have steadily increased since Title IX was enacted in 1972, reaching over 30% by 2006.

- Throughout its first 23 years of participation in the International Mathematical Olympiad (IMO), an extremely difficult precollegiate examination in mathematical problem solving, the U.S. failed to have even one girl qualify for its six-member teams. The U.S. finally identified three medal-winning girls, who participated a total of five times during the past 11 years. Likewise, the UK had only one girl on its first 21 IMO teams, yet 10 girls participated a total of 13 times during the past 20 years. On the other hand, Bulgaria has had 22 girls participate a total of 31 times throughout the decades, beginning with the very first IMO held in 1959. And Russia and Serbia have had over 20% girls on their teams during some decades.

- Although U.S.-born white and historically underrepresented minority girls are 30-fold or more underrepresented in proportion to their percentage of the U.S. population among the students qualifying for the U.S. Mathematical Olympiad Summer Program, the training camp for IMO team hopefuls, Asian-American girls are twofold overrepresented.

- The Gender Gap Index (GGI) is the World Economic Forum’s composite measure of a country’s gender equality with respect to economic, educational, health, and political opportunities. Both the ratio of girls to boys scoring above the 95th percentile on the 2003 PISA and the percentage of girls on a country’s IMO teams during the past two decades strongly correlate with the country’s GGI. Noteworthy is the fact that the U.S. ranked only 31st, between Estonia and Kazakhstan, out of the 128 countries included in the 2007 GGI report.

- National differences in an indicator of implicit gender-science stereotyping strongly correlate with nations’ mean gender differences in science and math performance among eighth graders taking the 2003 TIMSS.

- Comparisons between countries with very similar gene pools show large differences in girl participation rate in the IMO. The identically high-ranked East and West German IMO teams had five and no girl participants, respectively, during the 13 years immediately prior to reunification in 1991. Slovakia has sent 12 girls to the IMO versus the Czech Republic’s four since the countries were partitioned in 1993. South Korea has topped Japan for IMO participation by girls by nine to two during the past two decades. As Sharon Begley of Newsweek states, “It’s hard to see that as anything but the result of the starkly different social and other environmental forces in each country, not intrinsic biology.”

**Other Factors**

Thus, the identification of females who excel in mathematics performance at both the high and one-in-a-million levels significantly correlates with measures of gender equity, varies considerably among nations and even among ethnic groups within nations, and can significantly change over time. Such findings are not consistent with innate gender differences being a primary reason for greater male variability and the scarcity of outstanding female mathematicians. Rather, they provide strong support for sociocultural, educational, and other environmental factors being the main cause for female underrepresentation in mathematics and related fields.

Gender inequity is complex and multifaceted. It can encompass:

- Classroom dynamics that lead teachers to provide more attention to boys
- Bias by guidance counselors who buy into stereotypes and advise girls against taking advanced math courses
- “Stereotype threat” that leads females to underscore on mathematics examinations, based upon the unfounded belief that females are inferior in math ability
- Failure to identify and adequately nurture mathematically gifted girls
- Unwillingness on the part of girls to study extracurricular mathematics for fear of being socially ostracized as nerds
- A scarcity of women role models in math-intensive careers that leads girls to believe they do not belong in those careers
- Unconscious bias against women in hiring decisions
Chilly work environments that lead qualified women to drop out in favor of friendlier climes

Thus, much effort is needed at multiple levels of our society to ensure that all people are free to develop their talents and to pursue the careers best suited to their own personal interests and desires.

—Janet E. Mertz, University of Wisconsin School of Medicine and Public Health

References
New Meeting Format!

Two concurrent symposia will be held each afternoon, Sunday through Tuesday, December 6–8, from 4:00 pm–5:30 pm, and a special closing symposium will be held on Wednesday, December 9, from 11:00 am–12:30 pm. Seven minisymposia and one working group will be scheduled each morning, Sunday through Wednesday, December 6–9, 2009, during the ASCB Annual Meeting. Co-chairs will select up to six speakers for each minisymposium from regular abstracts submitted by July 30, 2009. Co-chairs are encouraged to present.

Member-Organized Special Interest Subgroups

Saturday, December 5
12:30 pm–5:00 pm

Session titles and speakers will be announced in the fall.

Symposia
Sunday, December 6, 4:00 pm

The Human Model: Genetics as Two-Way Information
- Christine Petit
  College de France and Institut Pasteur
- Vai Sheffield
  University of Iowa/HHMI
- Christopher Walsh
  Harvard Medical School/Children’s Hospital Boston/HHMI

Under the Hood of the Cell: Dynamic Organelles
- Jennifer Lippincott-Schwartz
  National Institute of Child Health and Human Development, NIH
- Jodi Nunnari
  University of California, Davis
- Jonathan S. Weissman
  University of California, San Francisco/HHMI

Monday, December 7, 4:00 pm

All You Can Be—The Biology of Multipotency
- Ruth Lehmann
  Skirball Institute, New York University Langone Medical Center/HHMI
- Marja Timmermans
  Cold Spring Harbor Laboratory
- Amy Wagers
  Joslin Diabetes Center and Harvard Stem Cell Institute

In a Pinch: Cell Division from Prokaryotes to Sex Cells
- Abby Dernburg
  University of California, Berkeley/HHMI
- Jan Lowe
  Medical Research Council, Laboratory of Molecular Biology
- Andrea Musacchio
  European Institute of Oncology

Tuesday, December 8, 4:00 pm

Cellular Sociology: Working Together in Morphogenesis
- Suzanne Eaton
  Max Planck Institute of Molecular Cell Biology and Genetics
- Mark Krasnow
  Stanford University School of Medicine/HHMI
- Olivier Pourquié
  Stowers Institute for Medical Research/HHMI

Movers and Shapers: Nuclear Dynamics and Gene Regulation
- Robert D. Goldman
  Northwestern University
- Bas van Steensel
  Netherlands Cancer Institute
- Wim Vermeulen
  Erasmus Medical Center

Wednesday, December 9, 11:00 am

Breaking the Diffraction Barrier
- Toshio Ando
  Kanazawa University
- Stefan Hell
  Max Planck Institute for Biophysical Chemistry
- Xiaowei Zhuang
  Harvard University/HHMI
Minisymposia

Lipid Dynamics
Benjamin Podbilewicz, Technion–Israel Institute of Technology
Petra Schwille, Biotechnology Center (BIOTEC), Technische Universität Dresden

Mitosis and Meiosis
Jennifer DeLuca, Colorado State University
Arshad Desai, University of California, San Diego

Molecular Motors
Samara Reck-Peterson, Harvard Medical School
Linda Wordeman, University of Washington School of Medicine

Nuclear Structure
A. Gregory Matera, University of North Carolina at Chapel Hill
Lindsay Shopland, The Jackson Laboratory

Organization and Dynamics of the Cytoskeleton
James Bear, University of North Carolina at Chapel Hill
Gero Steinberg, University of Exeter

Regulation of Cell Growth
Duojia Pan, Johns Hopkins University School of Medicine/HHMI
David Sabatini, Whitehead Institute for Biomedical Research and Massachusetts Institute of Technology/HHMI

RNA Biology
Brenda Bass, University of Utah
James Eberwine, University of Pennsylvania School of Medicine/PENN Genome Frontiers Institute

Stress Responses
Richard Morimoto, Northwestern University
David Ron, Skirball Institute of Biomedical Medicine, New York University

Systems Biology
Aimée Dudley, Institute for Systems Biology
Peter K. Sorger, Harvard Medical School

The Nuclear Envelope and Nuclear Pore Complex
Beatriz Fontoura, University of Texas Southwestern Medical Center
Dirk Görlich, Max Planck Institute for Biophysical Chemistry

Undergraduate Biology Curriculum in the 21st Century
Caroline Kane, University of California, Berkeley
Mark Rose, Princeton University

Important Dates

The ASCB 2009 Annual Meeting registration, abstract submission, and housing sites are active.

Deadlines
September 1
Regular Abstract Submission (poster consideration only)
Travel Award Application

October 1 Early Registration

October 15 Late Abstract Submission

www.ascb.org/meetings

As an alternative to minisymposia, these sessions provide a more interactive experience for meeting attendees.

Cancer Stem Cells
Peter Dirks, Hospital for Sick Children
Franziska Michor, Memorial Sloan-Kettering Cancer Center
Sean Morrison, University of Michigan/HHMI

Cell Biology of Disease
Kevin Campbell, University of Iowa/HHMI
Michael Caplan, Yale University School of Medicine
Christine Seidman, Harvard Medical School

What Is Life?
Zac Cande, University of California, Berkeley
Nicole King, University of California, Berkeley
Norman R. Pace, University of Colorado at Boulder

What Is the Goal?
Benjamin Glick, University of Chicago
Kathryn E. Howell, University of Colorado School of Medicine
Sean Munro, Medical Research Council Laboratory of Molecular Biology
Graham Warren, Max F. Perutz Labs

Working Groups

For more information, contact the ASCB:
(301) 347-9300
ascbinfo@ascb.org
www.ascb.org
E-cadherin Surface Levels in EGF-stimulated Cells Depend on Adherens Junction Protein Shrew-1
Julia Christina Gross, Alexander Schreiner, Knut Engels, and Anna Starzinski-Powitz

Loss of the tumor suppressor E-cadherin has been proposed to facilitate metastatic spread of ductal breast cancers by inducing epithelial–mesenchymal transition. In a significant number of breast cancers, tyrosine kinase growth factor receptors (RTKs), such as HER2 and EGFR, are amplified. Their activation has been proposed to enhance E-cadherin endocytosis. However, the mechanism remains rather elusive. Shrew-1/AJAP1 is a recently identified adherens junction-associated transmembrane protein that internalizes with E-cadherin upon activation on RTKs. By means of complementary gain- and loss-of-function approaches, the authors show that shrew-1 upregulation and depletion respectively enhance and abrogates EGF-stimulated E-cadherin endocytosis. Overexpression of shrew-1 leads to preformation of an E-cadherin/EGF receptor Her-2/src-kinase/shrew-1 signalling complex and accelerated E-cadherin internalization but not cadherin degradation. These findings contribute to the understanding of E-cadherin regulation and provide further insight into putative pathological factors leading to breast cancer.

Chromatin-dependent Transcription Factor Accessibility Rather than Nucleosome Remodeling Predominates during Global Transcriptional Restructuring in Saccharomyces cerevisiae
Karl A. Zawadzki, Alexandre V. Morozov, and James R. Broach

Nucleosomes not only serve as the fundamental unit of chromatin organization but also participate in regulation of genes they package. Previous studies have indicated that nucleosomes function as nonspecific repressors of gene expression. Examination of the regulation of specific genes has prompted a model in which induction correlates with removal of nucleosomes from gene promotors while repression is associated with addition of nucleosomes. In this study, the authors determined precise nucleosome positions across the entire yeast genome both before and after glucose addition, a condition resulting in transcriptional change in almost half of all genes. Surprisingly, little correlation was observed between changes in gene expression and changes in promoter nucleosome occupancy. Rather, the authors found that nucleosome occupancy predominantly defines which transcription factor binding sites are available for participation in regulation. Thus, in yeast, regulation by chromatin-delimited accessibility appears to predominate over regulation by chromatin remodeling.

Cisternal Organization of the Endoplasmic Reticulum during Mitosis
Lei Lu, Mark S. Ladinsky, and Tom Kirchhausen

Cell division is accompanied by dramatic alterations in the functional and morphological organization of membrane-bound organelles. How does mitosis affect the structure of the endoplasmic reticulum (ER)? By means of rapid 3-D imaging of single live cells, the authors show that during mitosis most of the ER is organized as an extended array of cisternae, with a few remaining ER tubules associated with the spindle. In contrast, the ER of interphase cells exhibits the characteristic reticular organization, with convoluted perinuclear ER cisternae connected to ER tubules present mostly in the cell periphery. The prevalence of extended mitotic ER was confirmed using high-resolution EM tomography of samples preserved by high-pressure freezing and freeze substitution. The authors go on to show that microtubules are required for maintenance and generation of tubular ER. Simple addition of nocodazole to interphase cells, which mimics in part the massive mitotic microtubule reorganization, also results in the tubule-to-cisternae transformation. This reflects the importance of active, cytoskeleton-based mechanisms to stabilize tightly curved ER membranes.

Structural Basis of Ist1 Function and Ist1-Did2 Interaction in the MVB Pathway and Cytokinesis
Junyu Xiao, Xiao-Wei Chen, Brian A. Davies, Alan R. Saltiel, David J. Katzmann, and Zhaohui Xu

The ESCRT (endosomal sorting complex required for transport) machinery mediates a series of topologically similar membrane deformation events: multivesicular body (MVB) sorting, enveloped virus budding, and abscission during cytokinesis. ESCRT-III subunit polymerization is not understood, but has been implicated in deforming membranes during these membrane budding/scission events. Ist1 has been identified as an ESCRT-III–associated protein (via direct interaction with the Did2 subunit), but its mechanism was unclear. Structural determination of the Ist1 amino-terminal domain (Ist1NTD) revealed remarkable similarity to the previously described ESCRT-III subunit fold, identifying Ist1 as a divergent ESCRT-III subunit. Moreover, cocrystallization of Ist1NTD in complex with the Did2 carboxyl-terminus identified a previously unappreciated pocket formed by Ist1 that binds Did2. This pocket contributes to the intermolecular association between Ist1 and Did2 but may also represent a conserved mechanism by which ESCRT-III subunits are auto-inhibited. These studies identify Ist1 as a divergent ESCRT-III subunit and reveal a novel ESCRT-III interaction surface that may contribute to both auto-inhibition and intersubunit associations.
Live, from Washington, DC…

The Senate already has among its members a Hall of Fame pitcher, a former veterinarian, a pro-basketball team owner, a farmer, and what some consider too many lawyers. Now it has a former comedian and talk show host.

After eight months of counting and recounting votes, the Minnesota Supreme Court has ruled that former Saturday Night Live writer and performer Al Franken was the winner of Minnesota’s U.S. Senate race. Franken beat incumbent Republican Senator Norm Coleman by 312 votes.

Franken’s election gives Senate Democrats a 60-seat majority. Unfortunately for Democrats, the 60 seats will rarely translate into the 60 votes needed to stop opposition filibusters and dictate Senate legislation. Senate Democrats will have, however, a larger proportion of seats on Senate committees. This will allow them to have more control of questions and witnesses at committee hearings and of the content of legislation committees send to the Senate floor. ■

—Kevin M. Wilson

Not So Fast, Mr. President

The President of the United States is often called the most powerful man in the world. That does not mean he always gets his way.

In President Obama’s FY10 budget request to Congress, he asked for two increases that have raised concerns. The first was an increase in the U.S. National Institutes of Health (NIH)-wide investment in cancer research, doubling the cancer budget over the next eight years. The second was for increased funding for autism research. The cost for these areas alone totaled $268 million, 60% of the $443 million overall increase Obama requested for the NIH.

Senator Tom Harkin (D-IA) and Representative David Obey (D-WI) both expressed concern about such sizable allotments of funding for two specific areas of research. Obey was quoted as saying, “the result will be political chaos in an area that ought to be determined by science.” Harkin is Chair of the Senate Labor, Health & Human Services, and Education Appropriations Subcommittee (LHHS Subcommittee). Obey is Chair of both the House LHHS Subcommittee and the full House Appropriations Committee.

With the influential Chairs of both the House and Senate funding subcommittees opposing the specific funding, its future passage is in serious doubt. ■

—Kevin M. Wilson
NIH Publishes Final Stem Cell Guidelines

Take 49,015, reduce by 30,060, and what remains? A net total of 18,955 comments received in response to the U.S. National Institutes of Health (NIH) draft guidelines for human stem cell research. While 49,015 comments were received, 60 were judged by the NIH to be too profane to post on the NIH website. Thirty thousand were not considered by the NIH because they did not properly respond to the NIH request for comments.

The final version of the “National Institutes of Health Guidelines for Human Stem Cell Research” was published in the Federal Register on July 7, 2009. The guidelines took immediate effect. They make two scientifically significant changes to the original draft first published in April. Along with establishing a reasonable standard for the eligibility of human embryonic stem cell lines derived in the future, the final guidelines:

- Include a review process to determine if stem cell lines already being used by investigators can be used in future NIH-funded stem cell research
- Create a registry of approved stem cell lines. The final guidelines acknowledge that NIH-funded investigators are currently conducting NIH-funded research using some of the 21 human embryonic stem cells approved for use under the Bush policy and non-federally funded research using privately derived cell lines.

Prohibiting these existing lines from being used for federally funded research under the new policy could have had a devastating impact on science. As the ASCB said in its letter to the NIH, “Federally funded researchers would be forced to stop their work and wait for a yet unknown number of new embryonic stem cells that comply with the new NIH guidelines to be derived. Such a halt to research would be detrimental to the scientific community and would also be devastating to patients around the world who might benefit from this important research.”

Instead of “grandfathering” these existing stem cell lines into compliance, the NIH will establish a Working Group of the Advisory Committee to the Director (ACD). The Working Group will review individual applications to ensure the stem cell lines used follow the principles and practices contained in the new guidelines.

The initial version of the guidelines also required each federal funding recipient to ensure the compliance of the stem cell lines used. The constant reassurance process would have been administratively burdensome for researchers and for the NIH. The ASCB highlighted two possible problems with the earlier proposal:

“Under the draft guidelines, each investigator who wishes to use a cell line in his or her research must provide assurances that the cell line complies with the NIH Guidelines. This repeated reauthorization of the same cell lines seems, to us, to be unnecessary. It is also possible that different institutions might judge the eligibility of the same cell line differently. This lack of uniformity threatens the free flow of scientific investigation.”

At the suggestion of several members of the research community, including the ASCB, the final guidelines establish a registry that will list the human embryonic stem cells approved for use in NIH-funded research.

Several areas of stem cell research, including stem cells derived from somatic cell nuclear transfer, parthenogenesis, and IVF embryos created for research purposes, remain ineligible for NIH funding.


To read the comments by the ASCB on the draft guidelines, go to www.ascb.org/files/ASCB_stem_cell_guidelines.pdf.

—Kevin M. Wilson
Cell Biology in Britain: Going Strong in Troubled Times

The difficulty with describing cell biology in Britain today is working out what cell biologists do. Here it is no longer fashionable to be just a microscope-wielding cell biologist; today it is de rigueur to have an alternative title, whether it be disease-related cancer cell biologist, technology-driven tissue-engineering cell biologist, or reflecting-a-specialism stem cell biologist. As a consequence, not only are the barriers between cell biology, genetics, engineering, behavioral sciences, computational biology, chemistry, and the clinical sciences constantly blurred, but also within Britain there is an increasing appreciation of the importance of cell biology in underpinning all these other disciplines.

Short History

Until relatively recently, most of British cell biology took place in the biology/biochemistry departments in the university sector or within government- or charity-funded research institutions. Funding was generally awarded to individual PIs on a lab-by-lab basis in the form of short (three-year) project grants or longer (five-year) program grants. And new lab heads were either appointed as university lecturers or institute tenure-track team leaders.

These days the picture is more complex. The expansion in high-tech, high-cost cell biology, and the drive from scientists and funding agencies to undertake health- and wealth-creating science, has resulted in many cell biologists in Britain now being part of multidisciplinary cooperatives. These cooperatives can apply for shared core funding (e.g., the UK Centre for Tissue Engineering in Liverpool and Manchester), apply as smaller focused research institutions/centers (e.g., Cambridge Stem Cell Institute), or apply in strong collaborative groupings with colleagues in other university departments or the industrial sector. In parallel, funding for cross-disciplinary projects has increased.

The Strengths and Challenges

The advantage of these changes has been to keep British cell biology at the forefront internationally. Moreover, the importance of these activities has been recognized by the four major cell biology funders in Britain (Medical Research Council, Biotechnology and Biological Sciences Research Council, the Wellcome Trust, and Cancer Research UK). All support a diverse range of cell biology activities in their units, centers, and institutions, and via their response-mode grant-funding schemes.

However, these changes have brought challenges. Many researchers struggle to juggle the complexities of managing a lab that is part of different groupings, each with its own aims and objectives; in many cases, the lab head also carries an increasingly onerous teaching responsibility. The current financial climate adds to the strain. Like many countries, Britain also struggles with the problems of a career structure for up-and-coming cell biologists. On one hand, cell biologists want to be part of collaborative enterprises; on the other, we still expect to be able to demonstrate individual achievements.

Despite this, Britain remains an attractive destination for cell biologists. The fellowship scheme offered by all major funders provides younger researchers with the opportunity to establish an independent career with minimal teaching and administrative responsibilities. The international mix in most laboratories provides a vibrant and ever-changing environment in which to work. And despite the change to more centralized cell biology groupings, the quirker and “bigger doesn’t always have to be better” aspects of British academia still appeal to many an individually minded scientist. Through response-mode funding he or she can still obtain grant support.

Getting Together

Britain is awash with biological societies, large and small, and consequently most cell biologists will belong to several societies serving their specialist and general needs. Unlike the ASCB, the British Society of Cell Biology (BSCB; www.bscb.org) does not own a journal and therefore survives financially on subscriptions and a generous grant from the Company of Biologists. A main activity is to organize and sponsor two meetings per year.

The major spring meeting covers a broad field of cell biology and is frequently run with
A challenge that we have yet to overcome in Britain is to coordinate the diverse biological societies such that between us we can provide a coherent voice when challenging issues of science funding and providing expert opinion to government and the public sector. However, the newer generation of active bloggers and networkers are already making inroads in these areas.

The Future
Despite the financial downturn, which has affected all funding streams, there is a strong spirit of optimism in Britain's cell biology community. As we move away from the more old-fashioned isolationist approach to running labs and obtaining funding, many are embracing and enjoying working with the broader scientific community. Moreover, many embrace seeing their work being translated into benefit for the community. Although many would still describe a cell biologist as someone who looks down microscopes, the British cell biologists know that their scientific horizons are increasingly widening.

—Clare M. Isacke, president, British Society of Cell Biology (BSCB) and Breakthrough Breast Cancer Research Centre, Institute of Cancer Research, London; and Elizabeth Smythe, secretary, BSCB, and Department of Biomedical Science, University of Sheffield, England

one or more other societies, in particular the British Society for Developmental Biology. The autumn meeting is smaller and more specialized. As well as offering an excellent scientific program and an opportunity to meet with British and overseas colleagues, these meetings are kept to low cost to encourage as many of the society members to attend as possible.

In addition, the society provides travel grants for Ph.D.s and postdocs and supports a summer research stadntship scheme for undergraduates. Most importantly, the BSCB showcases the best of British cell biology, both at its meetings and by awarding annually the Hooke Medal to a younger independent lab head. The three most recent recipients clearly demonstrate that Britain has cell biology talent:

- Ben Nichols (Cambridge) employs biochemical and diverse microscopy approaches to investigate plasma membrane dynamics and non-clathrin mediated uptake pathways
- Tomoyuki Tanaka (Dundee) exploits the genetics of budding yeast in combination with cutting-edge microscopy to understand chromosome duplication and segregation
- Erik Sahai (London) uses real-time microscopy in 3D in vitro and in vivo models to study cancer cell migration and invasion.

CLS Congressional Biomedical Research Caucuses Held

William Wulf, the AT&T Professor of Computer Science at the University of Virginia’s School of Engineering and Applied Science, addressed attendees at the Congressional Biomedical Research Caucus on June 10, 2009. He spoke on “The Decline of Innovation.” Wulf discussed what changes are needed to enable the U.S. to better compete in the world arena.

Chad Boult of the Johns Hopkins School of Public Health presented “Improving the Quality and Efficiency of Health Care for Older Americans” to attendees at the Congressional Biomedical Research Caucus on June 17, 2009. Boult and his team have created a new model of comprehensive health care called “guided care.” The concept is based on the simple notion that one trained professional should guide all aspects of care, unifying the patient, the family, and the medical team.
Serving Science, with a Side of Sushi and a Sip of Sake

Great news! President Obama has publicly affirmed that science must play a key role in building a stronger and healthier society on a stronger, healthier planet. Finally, science is chic!

But to many people science itself remains obscure, incomprehensible, and boring. Such off-putting impressions prevent citizens from developing scientific literacy and limit the pool of young people eager to enter research.

One small, friendly way for scientists to connect with the general public is through a science café. The City University of New York (CUNY) started one such science café, called Serving Science, in Autumn 2008. Here we share information about science cafés in general and Serving Science in particular.

What Are Science Cafés?

Science cafés are settings for informal talks for the general public given by professional scientists about timely issues in current scientific research. Typically, these events take place monthly in casual eating/drinking places—a bar, restaurant, or coffee house—and last for about an hour. The scientific host (in our case, CUNY, www.cuny.edu/research) invites, as a speaker for the event, a faculty researcher who can chat about her or his area of expertise, emphasizing the open questions and challenges, then discussing how these are being tackled.

Usually speakers give their talks sans PowerPoint slides or other fancy props. Also, speakers are encouraged to leave as much technical jargon as possible back in the lab, and instead bring boatloads of useful metaphors, similes, and clear explanations. This makes the presentation inviting and understandable to nonspecialists.

The bar or restaurant manager who provides the space usually charges a cover fee ($10 in New York City), which includes one free drink. Some venue hosts give discounts to event attendees who stay for food and drinks after the talk.

Spreading the Word about Science

Last summer we both wanted to start a science café. I, Gillian Small, CUNY’s vice chancellor for research, was eager to get the word out about the system-wide expansion of research programs within the CUNY colleges. And I, Beth Schachter, a science communications consultant, having learned about the international science café movement (www.sciencecafes.org/) through the Coalition for the Public Understanding of Science (www.copusproject.org/), wanted to contribute to science literacy among the people of my city.

So in August our collaboration began. Now all we had to do was recruit speakers who could start a dialogue with the public and find a venue that CUNY could take over once a month.

Most scientists have little experience giving research talks without using pre-made visual aids. But science cafés use an informal format to encourage interaction from the audience. Therefore, to launch our science café and develop an audience, we chose speakers who were well seasoned at giving impromptu talks to groups of nonspecialists. These faculty leaders came from the “hot topic” areas of public health, renewable energy, environmental challenges, and neuroscience.

Where to hold the science café? Consider this scenario: A woman walks into a bar in a major metropolitan area. Smiling at the manager, she says, “Hi there. How would you like to turn over your establishment one night a month to a bunch of academic scientists and their friends?”

Most restaurant and bar managers around Manhattan who were asked to be the host venue for Serving Science declined. Arthur Shi, however, immediately saw the win-win potential of the proposal. Shi runs Kouzan, a Japanese restaurant (www.kouzanny.com) that has two separate dining rooms and sits near public transportation but on a minor thoroughfare. Thus, for Shi, giving one dining room to Serving Science once per month enables him to introduce Kouzan to a new group of potential patrons.
Getting the Word Out
To spread the word about the science café, CUNY’s Communications Department created the Serving Science logo and used it for a website (http://web.cuny.edu/research/Serving-Science-CUNY-Science-Cafe.html), 5- × 6-inch cards, and 3- × 4-foot posters of Serving Science calendar events. “Read this and pass it along” emails went to a CUNY mailing list, to listservs for science writers, and to many friends and neighbors. And, of course, we posted announcements on LinkedIn, Facebook, and Twitter.

For the events themselves, we knew we would need a sound system. We rented one for the first two meetings. Then, seeing that the gatherings would continue, CUNY bought a microphone and speakers that we store at Kouzan between events.

Serving Science Worked!
Despite the fact that New York City already has three or four ongoing science cafés (www.sciencecafes.org/find.html), the system seems far from saturated. Even the first gathering drew almost 50 people, and later ones had more attendees. People who came in February brought their friends for the March and April events. Parents brought their children, and children brought their parents. The speakers, kept on their toes by lots of probing questions from the audience, for the most part gave clear, informative answers. Indeed, we captured audio/video evidence of one outstanding presentation, now posted on the Web (http://real.cuny.tv/ramgen/specials/cunysciencecafeAll.rm?usehostname).

And, much to our collective delight, with each subsequent event, more people stayed to dine after the presentation.

After year one of Serving Science, we report a shared eagerness to start year two in autumn 2009. Perhaps you could start a science café in your neighborhood!

—Beth Schachter, independent science consultant, and Gillian Small, The City University of New York, City College

Footnote
“Science is more essential for our prosperity, our security, our health, our environment, and our quality of life than it has ever been before.”
—Barack Obama, April 27, 2009, at the National Academy of Sciences

Year One at CUNY’s Serving Science
Each event started at 6:00 pm and consisted of a 45-minute talk by the speaker followed by about 10 minutes of questions and comments from the audience. Speakers typically also encouraged questions from the audience during the presentation, and audiences eagerly obliged with scores of good questions. Most often, the discussion could have continued beyond the allotted hour, but was ended by the CUNY host, in order to turn back the dining room to Kouzan and its patrons.

Presentation titles for year-one events were:
- Cancer Susceptibility: Genetics Loads the Gun but Environment Pulls the Trigger
- Hyperspace, Time Travel, and the Physics of the Impossible
- Energy at the Turning Point: The Role of Renewables
- Water in the Line of Fire: Origins and Solutions to the Global Water Crisis
- Functional Recovery after Spinal Cord Injury—Dream or Reality?
- Thinking Outside the Jack-in-the-Box: Novel Approaches to the Treatment of ADHD

All faculty members who spoke this year said that they thoroughly enjoyed the experience, and especially liked the questions from members of the audience. Therefore, we plan to run year two using the same casual format and means of choosing speakers as we did in year one.
Dear Labby,
I have an unusual authorship issue on which I would like your advice. I have just completed my postdoc and am moving this month to take up an assistant professor position. I was the first author on two papers during my postdoc. We are now submitting a third paper, on which I am also first author. But this week my lab head told me he wanted to get my assurance that the authorship could be changed depending on revisions the manuscript might subsequently undergo. I responded that this might be appropriate depending on the kinds and number of new experiments and who did them. But, surprisingly, he pressed me further by asking me to sign an agreement that I would accept any change in authorship. I refused, saying that until the revisions were done, I could not guarantee that I would agree. He was not pleased.

I asked a couple of postdocs in our department if they had ever heard of such a thing and they had not. My lab head’s motive is unclear. Changing authors later in a manuscript’s evolution does happen occasionally but should not be something that is agreed upon in advance. Depending on the reviews our manuscript receives, the new work required might be minimal, or might involve new experiments that I could probably come back and carry out. (My new institution is only 45 miles away.) Furthermore, there is no “close second” author on this manuscript, so the motive does not appear to be securing a first author position later for someone else. In any case, I cannot give up my right to at least discuss a future change in authorship. What does Labby think?

—Unsigned

Dear Unsigned,
Well, this is indeed a new one, at least to Labby. The request being made of you is outrageous and, as you say, defies logic. While revisions involving new experiments are common, and a change in authors might be warranted (either a change in their order or inclusion of a new author), there is no way a formal prearrangement can be justified.

Labby does not wish to encourage paranoia, but one wonders if your lab head might have something sinister in mind. Could he be planning to withdraw the submission right after you leave and add work done by a collaborating lab? That would be duplicitous beyond description and may sound far-fetched, but given his request for your agreement in advance about changes in authorship anything seems possible. Bear in mind that were you to sign, you would be agreeing not only with him not to oppose a possible authorship revision but with the journal as well. Thus, if the journal were one that requires all authors to state (and in some cases sign) their agreement with the authorship, you would have to so agree.

Labby hopes that there is a benign explanation for your lab head’s behavior. Nevertheless, if your refusal to sign leads him to threaten holding up submission of the manuscript, you should immediately contact the department chair or, if he is the chair, the dean or a suitable officer of your institution.

—Labby

Direct your questions to labby@ascb.org. Authors of questions chosen for publication may indicate whether or not they wish to be identified. Submissions may be edited for space and style.

Share Your Visa Experience

In May 2009 ASCB President Brigid Hogan and Executive Director Joan Goldberg shared their concerns about visa difficulties for scientists and students coming to the U.S. for the ASCB Annual Meeting and other purposes. Since then, U.S. State Department announcements suggest that the process is improving, and wait times are declining, due to additional staff hires and changing regulations. Please share your stories about past and more recent experiences for inclusion in a future ASCB Newsletter article. Send to ascbinfo@ascb.org.
Re: Dear Labby

Dear Labby:
Your reply to “Nonrepeat Offender” [in the June 2009 ASCB Newsletter] was excellent as usual.

You could also have added that MS/MS analysis is subject to significant “error” in as much as even analysis of the same sample in two or more MS/MS experiments will typically result in a different set of identified proteins—the more complex the mix the greater the variability with often less than 30% overlap from experiment to experiment. This is the reason that in MS/MS profiling studies one might see 10 or more sets of experiments to “saturate” the analysis.

There are also issues related to the database used to search—the specific edition of the database, etc. Keep up the good work

—Angus Nairn
Yale University

Labby’s reply: Thank you for these thoughtful comments, which add to the importance of replication. Although space considerations entered into how detailed the reply could be, this input—reflecting your considerable expertise—is most appreciated.

Dear Labby:
Just a quick note to say that you did an excellent job responding to “Nonrepeat Offender” in your recent column in the June 2009 ASCB Newsletter. Not only do I completely agree with your advice, but you also laid out your reasoning in a very logical fashion that is certain to be appreciated by a young graduate student struggling with these concepts.

Even as someone who left grad school and postdoc days decades ago, I always read your columns and, to my recollection, have not disagreed with your viewpoints even once. You do a really great job in communicating important concepts to our younger, earlier career colleagues. Congratulations on a job always well done. And in particular, this month’s!

(For what it’s worth, growing up in the ’60s I always read Dear Abby in my parents’ daily newspaper. She didn’t cover cell biology nearly as well as you do, however.)

—Bruce A. Littlefield
Harvard Medical School

Biology Scholars Program

NSF-funded program to prepare faculty for life beyond 2010.

Transitions Residency
Evaluate whether science education research is ready for publication and if not, why not?

Each yearlong virtual residency begins with a preparatory institute:

Transitioning from Science Education to Publishing Institute
June 14-17, 2010
Washington, DC

Application Deadline: February 1, 2010

Travel grants available for biologists from community colleges and minority-serving institutions.

Scholarship of Teaching and Learning Institute
July 14-17, 2010
Washington, DC

Application Deadline: March 1, 2010

www.biologyscholars.org
Housing Pirates

It has come to our attention that some ASCB members are being contacted via phone or email asking if they need a room for the ASCB Annual Meeting and offering deep discounts. Please be advised that neither the ASCB nor the official Housing Bureau (San Diego Accommodating. YOU!) will contact you (by either email or phone) about booking hotels for the 2009 Annual Meeting in San Diego. All exhibitors and meeting attendees should book hotels through the official housing bureau at www.ascb.org/meetings. Please do NOT provide your personal information, especially your credit card number, in response to unsolicited phone calls or emails.

For more information on this topic and why it is important to book within the hotel block, please visit www.ascb.org/meetings/housing.cfm.

2009 Half-Century Fund Donors

The ASCB is grateful to the following donors whose contributions support Society activities:

Gold
Elizabeth Blackburn
Craig Blackstone
Robert P. Bolender
Bill Brinkley
Joseph Gall
Brigid Hogan
Sandra Schmid
Emma Shelton
Kenneth M. Yamada
Koji Yoshinaga

Silver
Robert Adelstein
Barbara Hamkalo
Morris J. Karnovsky
Joel Rosenbaum
Ronald Vale

Bronze
Daniel Branton
Anne Goldman
Barbara Johnson-Wint
Claude Lechene
Yuko Mimori-Kiyosue
William M. Saxton

Sustainer
Mina Bissell
Donald Brown
Werner Franke
Daniel Friend
Ursula Goodenough
Craig Jeffries
Michael Lampson
Gordon W. Laurie
Ruth Lehmann
Wayne Lencer
Jani E. Lewis
Phyllis LuValle
Marc Muskaivitch
Ralph A. Nixon
Jean Sanger
Joseph Sanger
Martin Schwartz
P.J. Simpson-Haidaris
Emanuel E. Strehler
Elizabeth Sztul
Marvin Tanzer

Jaan A. Steitz
Masatoshi Takeichi

The list of 2008 Half-Century Fund donors is posted on the ASCB website at www.ascb.org. Click on “About.”

Life Scientist Salary Survey

Are you interested in salary comparisons of ASCB life scientists? A total of 297 members of the ASCB participated in a survey recently conducted by The Scientist. Breakdowns of salaries according to the various demographic parameters measured in the survey are available through a link on the ASCB homepage newscroll at www.ascb.org.
Educational Opportunity Administrative Supplements. NIH announced that $21 million of American Recovery and Reinvestment Act funding for administrative supplements to existing NIH grants over two years has been allocated for educational opportunities in NIH-funded laboratories for summer students and science educators. Applications may be submitted throughout FY09 and FY10, but some NIH institutes and centers may have specific deadlines. http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-060.html.

Mentored Quantitative Research Development Award. The purpose of the NIH Mentored Quantitative Research Career Development Award (K25) is to attract to NIH-relevant research those investigators whose quantitative science and engineering research has thus far not been focused primarily on questions of health and disease. Expiration: January 8, 2012. http://grants.nih.gov/grants/guide/pa-files/PA-09-039.html.

The National Academies’ Research Associateship Programs administer postdoctoral (within five years of the doctorate) and senior (normally five years or more beyond the doctorate) research awards sponsored by federal laboratories at over 100 locations in the U.S. and overseas. Quarterly application deadlines. www7.nationalacademies.org/rap.

National Centers for Biomedical Computing (R01). This funding opportunity is for projects from individual investigators or small groups to collaborate with the NIH Roadmap for Medical Research National Centers for Biomedical Computing (NCBCs). Collaborating projects are intended to engage researchers in building an excellent biomedical computing environment, using the computational tools and biological and behavioral application drivers of the funded NCBCs as foundation stones. Expiration: September 8, 2011. http://grants.nih.gov/grants/guide/pa-files/PAR-08-184.html.

NIGMS Grants. The National Institute of General Medical Sciences is accepting applications for funding research in which several interdependent projects offer significant advantages over support of these same projects as individual research. Standard NIH application dates apply. http://grants.nih.gov/grants/guide/pa-files/PA-07-030.html.


Pathway to Independence Award. The primary purpose of the NIH Pathway to Independence Award (K99/R00) program is to increase and maintain a strong cohort of new and talented NIH-supported independent investigators. The program is designed to facilitate a timely transition from a mentored postdoctoral research position to a stable independent research position with independent NIH or other independent research support at an earlier stage than is currently the norm. Expiration: January 8, 2012. http://grants.nih.gov/grants/guide/pa-files/PA-09-036.html.

Research Supplements to Promote Diversity in Health-related Research. NIH and the Centers for Disease Control and Prevention (CDC) have announced to PIs holding specific types of NIH research grants that funds are available for administrative supplements to improve the diversity of the research workforce by supporting and recruiting students, postdoctoral researchers, and eligible investigators from groups that have been shown to be underrepresented. http://grants.nih.gov/grants/guide/pa-files/PA-08-190.html.

Research Supplements to Promote Re-entry into Biomedical and Behavioral Research Careers. These supplements are intended to encourage individuals to re-enter research careers within the missions of all NIH program areas. This program will provide administrative supplements to existing NIH research grants to support full-time or part-time research by individuals in a program geared to bring their existing research skills and knowledge up-to-date. Expiration: September 30, 2011. http://grants.nih.gov/grants/guide/pa-files/PA-08-191.html.

Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows in Pharm.D./Ph.D. Programs. The objective of this NIH funding opportunity announcement is to help ensure that highly trained Pharm.D./Ph.D. graduates will be available in adequate numbers and in appropriate research areas to carry out the U.S. biomedical, behavioral, and clinical research agenda. Expiration: January 8, 2012. http://grants.nih.gov/grants/guide/pa-files/PA-09-029.html.

SCORE Awards. The National Institute of General Medical Sciences is accepting applications for its Support of Competitive Research (SCORE) developmental awards designed to increase faculty research competitiveness at minority-serving institutions. Multiple deadlines through May 18, 2010. The program announcement, as well as three other program announcements (PAR-06-491, PAR-06-492, PAR-06-493), can be found at http://grants1.nih.gov/grants/guide/pa-files/PAR-06-490.html#PartI.
Did You Know...?

September 1 is the regular abstract submission deadline (for poster consideration only) for this year’s ASCB Annual Meeting; the meeting will be held December 5–9 in San Diego, CA.
- Sponsorship of abstracts is required.
- All current members and member applicants may sponsor their own abstract.
- All regular, postdoctoral, and emeritus members may sponsor another person’s abstract if they are not submitting one themselves.

Are there nonmembers in your lab who want to submit abstracts? Now is the time to encourage them to join ASCB! Not only will they be able to sponsor their own abstract, but they will be eligible for the discounted member-only registration rate as well as other discounts and membership benefits. For more information, go to www.ascb.org and click on “Membership.”

New Career Advice Book

Volume III of the popular Career Advice for Life Scientists (CALS) series is now available. Like its predecessors, CALS III is a collection of Women in Cell Biology columns from the ASCB Newsletter. The articles provide helpful career advice for all life scientists, men and women, at all career stages. CALS III has been published with support from the Office of Research on Women’s Health of the National Institutes of Health and from the Burroughs Wellcome Fund.

The book is free (with a charge for shipping and handling), or you can download the PDF file. Go to www.ascb.org/store.cf/books.cfm to get your copy. The combined reprint of the first two volumes of CALS is also available.

MEETINGS Calendar

A complete list of upcoming meetings can be found at http://ascb.org/othermeetings.psp. The following meeting has been added since the last issue of the Newsletter:

October 14–15, 2009, Bethesda, MD

ASCB Annual Meetings

December 5–9, 2009. San Diego
December 3–7, 2011. Denver
December 15–19, 2012. San Francisco
December 14–18, 2013. New Orleans
December 6–10, 2014. Philadelphia
Do you believe that sustained, real growth in federal support for the NIH will fuel the discoveries of tomorrow?

Do you believe that the next generation of researchers need to be mentored and encouraged to stay in the scientific field?

Do you believe in making a difference in your community?

Then join the Congressional Liaison Committee (CLC) of the Coalition for the Life Sciences.

The CLC offers:
- Simple effective ways to reach out to your elected officials in Congress
- Opportunities to meet your federal representation in Washington, DC
- Tools and tips on ensuring your success as an advocate for biomedical research

To Join the CLC

www.coalitionforlifesciences.org/be-an-advocate