

## Should PhDs Become K–12 Teachers?

Page 3

## MAC Events and Programs

Page 19

## Biology Scholars Study Teaching and Learning

Page 24

# Inside

President's Column	3
WICB Column	7
CV Review	9
Public Policy Briefing	10
CLS on Capitol Hill	13
Minisymposia Schedule	15
Annual Meeting Program	16
CellDance 2012	18
PIC Needs Associates	18
Minorities Affairs	19
Biology Scholars Program	24
iBioSeminars / iBioMagazine	26
Highlights from MBoC	27
Interesting Uses of The Cell	28
Grants and Opportunities	29
New ASCB Members List	29
Dear Labby	30
Meetings Calendar	31
Member in the News	31
Books by Members	31
ASCB 2012 Member Gifts	31
Correction	31

Join the Conversation:



# It's Easy to Be an Advocate for Science



ASCB Councilor JoAnn Trejo, postdoc Audrey Howell, ASCB President Ron Vale, and ASCB Councilor Ray Deshaies on their way to Rep. Nancy Pelosi's office (D-CA)

ASCB President Ron Vale invited us (three postdocs) to join the Council's annual Capitol Hill Day on June 7 to educate members of Congress on the importance of supporting budget increases for the National Institutes of Health (NIH). In the wake of this highly successful Capitol Hill Day, one burning question persisted: How do we encourage more scientists to get involved in advocacy to ensure further support for the NIH? To encourage participation, we will outline a typical Capitol Hill Day, make a case for rank-and-file participation in advocacy, and explain how scientists at all levels can get started as advocates for science.

*Advocacy, continued on page 11*

## Did You Know...?

If you register by October 10 for the 2012 ASCB Annual Meeting to be held December 15–19, 2012, in San Francisco, CA, you will receive the special Early Registration discounted rates.

- Registration is easy: Go to [www.ascb.org/meetings](http://www.ascb.org/meetings) and click on the “Rates and Registration” button.
- If you submit an abstract for the Annual Meeting, you must still register for the meeting—these are two separate processes with two separate fees.
- If nonmembers in your lab apply for membership when they submit their abstracts, they *don't have to wait for approval of their application* to register for the meeting at the lower member rates. ■

**BE AN ADVOCATE FOR SCIENCE...YOU COULD  
WIN AN iPad**

# **‘WE ARE RESEARCH’**

**A Nobel prize-winning week in October...for advancing  
science year round.**

During Nobel week, we need to show our elected officials and our neighbors the importance of what goes on in our labs and our research institutions the other 51 weeks a year. There has never been a more urgent time to advocate for science. Beyond funding, we need respect for and a real understanding of the vital role that science must play in the 21st century. Like research, science advocacy is a year-round job. Like research, advocacy can take place across the United States, not just in Washington, DC. But unlike research, advocacy takes only as much time as you have to give. Here's where you come in. Take a photo, record a two-minute speech explaining your research (you could win an iPad), give a lab tour...We have lots of suggestions.

**To learn how you can be involved, go to  
[www.ascb.org/weareresearch.html](http://www.ascb.org/weareresearch.html)**



## Is K-12 Teaching an Acceptable Career Outcome after a PhD Degree?

Science education at both early and late stages of training is facing challenges. In many K-12 classrooms, science is presented as a series of textbook facts; students are not being exposed to scientific methods of inquiry and are losing interest in science. At a higher level of training, life sciences PhDs and postdocs in the United States often experience difficulties in finding university jobs, a situation that will likely persist in the coming decade if research funding fails to grow; we cannot expect all PhD graduates to become PIs at academic institutions. Might these two problems add up to a solution (or at least a partial solution)? Is there a place for graduates of life science PhD training programs in teaching K-12 science, particularly biology at the high school (HS) level?



Ron Vale

The answer to this question is not obvious. There are many roadblocks, both in perception and logistics, that discourage rather than promote a career path by which a PhD can become a HS teacher. Certainly, many PhDs are currently teaching HS biology, but they usually arrive at this choice in spite of, rather than because of, the mentoring system now in place. Furthermore, HS teaching is often omitted from among the many nontraditional career tracks currently being advocated for PhDs (e.g., patent law, public policy, business or nonprofit administration, college teaching, science writing). It is frequently absent or presented only briefly at career workshops, and the HS teaching career option is rarely discussed or debated in our scientific community. This President's Column is intended to stimulate a discussion by highlighting the pros and cons of the HS teaching career choice, the barriers for entry, and what steps might be taken to promote this path for interested individuals.

### Is There a Need and a Role for PhDs in Teaching High School Biology?

A HS science teaching position requires a

BA or BS degree and not a PhD. This requirement makes sense, but raises a host of questions. Are PhDs overqualified for a HS teaching position? Does a PhD degree make one a better HS teacher? Is it worthwhile for a school to hire a PhD at higher cost? Can one apply elements of the PhD training to teaching at the HS level, and are these elements appropriate for HS students?

It would be worthwhile to gather data on these questions, but here I will express my opinions. First, many organizations (e.g., the National Academy of Sciences) and educational leaders advocate introducing inquiry-based learning into the K-12 science curriculum. Scientific inquiry is difficult to teach without having had an experience of trying to solve an unknown scientific question oneself. Offering research opportunities for HS science teachers (or students in training to become teachers) would be one way to provide HS teachers with a deeper understanding of science inquiry. Graduate education in science, however, is predicated upon solving an original research problem, and thus a PhD could enter into teaching with a strong understanding of research and the processes of scientific thinking. Furthermore, it is possible to translate other experiences from PhD training into a HS environment, such as knowledge of how to read a scientific paper or set up a simple experiment (making use of whatever resources might be available). And a PhD may bring to teaching a sense of wonder about the many important things that remain to be discovered in the sciences and the discoveries that are being made right now.

On the other hand, one can argue that an advanced degree does not necessarily make one a great HS teacher. This is absolutely true (although the same argument can be made for a BA/BS degree). There is nothing about PhD training that prepares one for managing a class of teenagers with raging hormones, provides the skills to deliver learning material in the HS curriculum, or offers experiences that

### Officers

Ronald Vale	<i>President</i>
Don W. Cleveland	<i>President-Elect</i>
Sandra L. Schmid	<i>Past President</i>
Thoru Pederson	<i>Treasurer</i>
Kathleen J. Green	<i>Secretary</i>

### Council

Sue Biggins  
David Botstein  
A. Malcolm Campbell  
Raymond J. Deshaies  
Benjamin S. Glick  
Akihiro Kusumi  
Inke N  thke  
Mark Peifer  
James H. Sabry  
David L. Specter  
JoAnn Trejo  
Yixian Zheng

**The ASCB Newsletter**  
is published 11 times per year  
by The American Society  
for Cell Biology.

W. Mark Leader	<i>Editor</i>
Johnny Chang	<i>Production Coordinator</i>
Kevin Wilson	<i>Public Policy Director</i>
John Fleischman	<i>Science Writer</i>
Thea Clarke	<i>Director, Communications and Education</i>

### Advertising

The deadline for advertising is the first day of the month preceding the cover date. For information contact Advertising Manager Ed Newman, [enewman@ascb.org](mailto:enewman@ascb.org).

**ASCB Newsletter**  
**ISSN 1060-8982**  
**Volume 35, Number 7**  
**August 2012**

  2012 The American Society for Cell Biology. Copyright to the articles is held by the author or, for staff-written articles, by the ASCB. The content of the *ASCB Newsletter* is available to the public under an Attribution-Noncommercial-Share Alike Unported Creative Commons License (<http://creativecommons.org/licenses/by-nc-sa/3.0>).

Postmaster: Send change of address to:  
**ASCB Newsletter**  
The American Society for Cell Biology  
8120 Woodmont Avenue, Suite 750  
Bethesda, MD 20814-2762, USA

enable one to better relate to kids of this age group. Also, some may argue that PhDs will be disappointed by teaching below their skill level and that they will be better off teaching more advanced biology in college. That is a judgment call, and one cannot put oneself in the skin of another person and decide what might motivate him or her. During the process of getting a PhD, many students become driven to pursue academic careers in universities, but this is not universally true. Some individuals love teaching and working with teenage kids. They value an opportunity to make a difference to kids at this very formative stage of their lives. They thrive on the gratification that comes from being an excellent teacher and seeing kids enter their classroom “hating” science and leave with an attitude that science is “okay,” maybe even “awesome.” They value the impact that they can make by turning kids onto science and having even a few of them want to pursue a scientific discipline as their college major. Most of us who are in a scientific profession can remember a HS science teacher who was important for our decision to pursue science.

Regarding skills and challenges, there are plenty of opportunities for innovation and creativity in HS science teaching in which PhD training could be beneficial, particularly in developing ideas to make science interesting and introducing scientific thinking into the classroom. Some HS settings will be more conducive to deviating from the script than others, but opportunities exist for teachers who want to make a difference. Education can be as challenging and interesting as bench science for the right type of person.

### Many Barriers to Entry

There is an unspoken perception in the graduate school community and beyond that becoming a HS teacher after obtaining a PhD represents a failure, a last resort after other options do not pan out. It is not something that one pursues as a first choice. This perception is expressed in a

**There are many roadblocks, both in perception and logistics, that discourage rather than promote a career path by which a PhD can become a HS teacher.**

blog by a PhD HS teacher:

I often feel like the world looks at this choice we've made as some sort of failing condition. Once in a while I get a student asking me, carefully, why I'm not teaching college if I've got my doctorate. The assumption often seems that it's because I couldn't make it as an academic so now I'm stuck teaching high school.... If only graduate schools valued and encouraged returning to (or entering) K12 practice as an outcome for the PhD.<sup>1</sup>

The perception of HS teaching as a failure for someone with an advanced degree is damaging to graduate students who entertain the idea of such a career choice and to the culture of the scientific community. Many students would be hesitant about discussing becoming a HS teacher with their advisor or thesis committee, fearing that it will “disappoint” them. HS teaching is not discussed as a career option in thesis committees. Most PIs have little idea of what HS teaching involves or what is being or could be taught in HS. There are no special programs for graduate students to explore HS teaching or be directed toward it as a career choice.

Beyond the perception problem, additional barriers discourage PhD graduates from entering a HS teaching career. First, it is difficult for graduate students to have a significant HS teaching experience during their PhD training in order to decide whether they might like it or be good at it. Second, a teaching certificate is required to teach in public school, which often necessitates one or two additional years of training, a significant burden for someone who has already completed a lengthy PhD training program. Private HSs do not have this requirement and so provide a better entry point for PhDs. However, it is unfortunate that options are so restricted, because many individuals might like to teach in public HS. Third, salaries for HS teachers are significantly lower than those for other professions that are open to PhDs. Nevertheless, many individuals are willing to accept a lower salary for a job that best fits their aspirations.



## Can We Provide a Better Entry Path for PhDs to Teach High School Biology?

A large government or philanthropic organization (e.g., the National Science Foundation, Gates Foundation, Carnegie Foundation, Howard Hughes Medical Institute) could make a major impact by establishing a first-of-kind program to facilitate the transition of PhD graduates into HS teaching. Such a program might incorporate, for example, a postgraduate HS teaching internship and then assistance with facilitating HS placement. It could also include a summer stipend for science curriculum development (perhaps for a limited time of five years). In addition to augmenting teachers' salaries, such a summer program would provide opportunities for creativity and innovation that could attract energetic PhDs towards HS teaching. The cohort of PhD HS teachers could also interact at a national meeting where they could present their efforts and share notes on science curriculum development as well as meet senior guest scientists and educators. Even if this cohort is small (e.g., 50 fellowships per year), it could have a powerful effect. In addition to providing an attractive entry point to teaching, such a program would send a message that PhD trainees have a place in the HS system and that it is important to foster science curriculum development.

Before they make commitments to pursue HS teaching paths, it would also be useful to give interested PhDs an opportunity to see what HS teaching is like. All of us have been in HS, but it is hard to imagine what it is really like to be on the other side of the classroom. Even with a two-week teaching internship, students could gain a sense of whether they could teach several classes per day, five days per week.

It is hard to say whether there is sufficient buy-in at this time for private foundations, graduate schools, and school boards to develop novel programs and change attitudes about PhDs entering HS teaching. But can we wholeheartedly

advocate bringing real science to K–12 education and yet discourage or make it difficult for trained scientists to enter the HS teaching profession?

## Catalyzing Change: Importance beyond Numbers

Why be concerned about PhDs and the HS teaching profession? Even if we facilitate entry into the profession, the number of PhDs will be just a drop in the very large HS teaching pool. Moreover, the number of PhDs who will be interested in HS teaching also will remain small. But impact and change are not always driven by sheer numbers of people. Rather, it is important to identify circumstances in which a few individuals can make important differences to a system. A PhD who has a significant understanding of scientific research and learns to become a great HS teacher would have an unusual opportunity to improve catalytically the quality of science being taught to many students at a very influential stage of their lives. This improvement can come through many avenues—through direct contact with the many students who come through his or her classroom, by

sharing ideas with and assisting peer teachers, and through curriculum development. Through the latter means, such teachers could reach even more students and influence teachers in their districts or beyond.

A subset of these scientist–HS educators also may later become administrators in schools or school boards, where they could have broader impact on science curriculum, as discussed in a recent editorial by Bruce Alberts.<sup>2</sup> ■

*Comments are welcome and should be sent to [president@ascb.org](mailto:president@ascb.org).*

## References

<sup>1</sup>DOCZ. (January 8, 2012). PhDs as K12 teachers. <http://thepapergraders.org/?p=363>.

<sup>2</sup>Alberts B. (2011) Science adapters wanted. *Science* 334, 1031.

**[C]an we wholeheartedly advocate bringing real science to K–12 education and yet discourage or make it difficult for trained scientists to enter the HS teaching profession?**

# Pipette like a PRO!

The **accu-jet® pro** pipette controller – smooth, sensitive meniscus control!

- **PROtects cell pellets** – simple soft blow-out control
- **PROgressive speed control** – continuously variable, touch sensitive control
- **PROportioned perfectly** – sculpted handle for comfort – no hard edges
- **PROlonged battery life** – 8 hours per charge, with low-charge LED warning



- **PROMotional special!** Buy 3, get one free! For a limited time, we'll send you a FREE accu-jet® pro when you buy two from leading lab dealers. Available in Royal Blue, Dark Blue, Magenta and Green accents.



**BRANDTECH®**  
SCIENTIFIC, INC.

Toll Free 888-522-2726  
Product & promotion details  
at [www.brandtech.com](http://www.brandtech.com)

## MPC-200 Multi-manipulator system

**Versatile:** User friendly interface controls up to two manipulators with one controller. Select components to tailor a system to fit your needs.

**Expandable:** Daisy chain a second controller and operate up to four manipulators with one input device.

**Stable:** Stepper motors and cross-rolled bearings guarantee reliable, drift-free stability.

**Doubly Quiet:** Linear stepper-motor drive reduces electrical noise. Thermostatically-controlled cooling fans barely whisper.

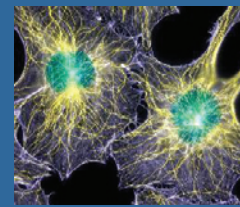
*Make the right move!*



**SUTTER INSTRUMENT**

PHONE: 1- 415.883.0128 | FAX: 1- 415.883.0572  
EMAIL: [INFO@SUTTER.COM](mailto:INFO@SUTTER.COM) | [WWW.SUTTER.COM](http://WWW.SUTTER.COM)

## Director, National Institute of General Medical Sciences, National Institutes of Health



*The NIH is the center of medical and behavioral research for the Nation  
----making essential medical discoveries that improve health and save lives.*

**Are you a top-level Scientific Researcher or Scientific Administrator seeking a career at the one of the preeminent health institutes in the nation and the world?** Are you at that point in your career where you're ready to "give back"? The position of Director, National Institute of General Medical Sciences (NIGMS), National Institutes of Health (NIH), offers a unique and exciting opportunity to provide leadership, administer, foster, and support research in the basic and general medical sciences, and in related natural or behavioral sciences. The Director, NIGMS, develops Institute goals, priorities, policies, and program activities, and keeps the Director, NIH abreast of NIGMS developments, accomplishments, and needs as they relate to the overall mission of the NIH. S/he is responsible for managing a high-level complex organization and serves as the chief visionary for the Institute. The mission of NIGMS is to support research that increases understanding of life processes and lays the foundation for advances in disease diagnosis, treatment, and prevention.

**We are looking for applicants with senior level experience who have a commitment to excellence and the energy, enthusiasm, and innovative thinking necessary to lead a dynamic and diverse organization.**

**The successful candidate for this position will be appointed at a salary commensurate with his/her qualifications.** Full Federal benefits will be provided including leave, health and life insurance, long-term care insurance, retirement, and savings plan (401k equivalent).

**If you are ready for an exciting leadership opportunity, please see the detailed vacancy announcement at <http://www.jobs.nih.gov> (under Executive Jobs).**

**Applications will be reviewed starting October 1, 2012 and will be accepted until the position is filled.**



NIGMS, NIH, AND DHHS ARE EQUAL OPPORTUNITY EMPLOYERS



## Are Women Bioscientists Avoiding Medical Schools?

Twenty years ago, women's complaints of gender bias, sexist attitudes, and a generally "chilly climate" were widespread throughout academia. In response to these concerns, various initiatives such as the National Science Foundation-supported ADVANCE program<sup>1</sup> were launched in an attempt to transform institutions. Such initiatives sought to change workplace environments and eliminate biases. They usually included family-friendly policies intended to ease the way for faculty members with children, as well as efforts to improve recruitment and retention of both minorities and women.

More recently, the spotlight has shifted to concern about "leakage in the pipeline" at the earliest stages of scientific careers—i.e., that women are choosing to avoid faculty positions.<sup>2,3</sup> Importantly, most reports that support this concept are studies of women trained in biomedical disciplines. For example, information compiled by the Association of American Medical Colleges (AAMC) in 2010 on the proportion of women and minorities among tenure-track assistant professors in basic science departments of U.S. medical schools<sup>4</sup> was compared with estimates of the number of women and minorities in the hiring pool (proportion earning PhDs in biomedical sciences<sup>5</sup> 5–15 years earlier). This analysis revealed that women made up only 33.2% of the assistant professors in medical schools, even though they constituted 46.5% of the hiring pool.

### Is the Medical School Pipeline Leakier Than the University Pipeline?

That disparity is consistent with a "leakage" hypothesis. However, according to a 2009 Association of Women in Science survey, fewer women applied for medical school basic science

(Med-Sci) biochemistry and molecular biology tenure-track positions than for positions in university science (U-Sci) departments of chemistry, biochemistry, and biology.<sup>6</sup> This finding suggests that many women may

be avoiding certain working environments (e.g., medical schools) rather than being rejected for or opting out of academia.

To address further the question of whether women are underrepresented on both Med-Sci and U-Sci faculty, Leboy and Madden examined the demographics of full-time faculty in 18 universities with both Med-Sci and U-Sci departments.<sup>7</sup> To limit the number of variables, the study included only highly ranked, research-intensive departments. (Details on identifying highly ranked departments and using departmental websites to identify gender are published elsewhere.<sup>7</sup>) Med-Sci institutions were the only departments with significantly fewer women assistant professors than expected (Table 1). These numbers are similar to those in the earlier

AAMC data. The percentage of women among assistant professors in U-Sci departments is closer to the percentage in the hiring pool, suggesting that women scientists are more attracted to faculty positions in highly ranked, research-intensive U-Sci departments than in Med-Sci departments.

### The New Requirement for Entrepreneurship in Medical Schools

Why might these women be avoiding science faculty positions in medical schools? One distinguishing characteristic from U-Sci departments is that Med-Sci faculty members must generate substantial income to support both research and faculty salaries. Entrepreneurship had never been a major occupational requirement for success in



Phoebe S. Leboy



Sandra K. Masur



**This analysis revealed that women made up only 33.2% of the assistant professors in medical schools, even though they constituted 46.5% of the hiring pool.**

Table 1. Women assistant professors in highly ranked science departments vs. availability pool (PhDs)

DISCIPLINE	% WOMEN AMONG ASSISTANT PROFESSORS IN RESEARCH-INTENSIVE DEPTS (2011)	% WOMEN EARNING PHDS IN DISCIPLINE* (1998–2007)	% DIFFERENCE FROM EXPECTED
Medical School: Basic Science	32.1	42.3	–10.2
University: Biology	38.4	42.6	–4.2
University: Chemistry	32.1	32.7	–5.5
University: Physics	27.2	15.8	+9.2

\*Includes U.S. citizens, permanent residents, and temporary residents.

academic science until modern academic health centers were expanded after successful competition for federal and private funding support. Now, however, the challenges of being an assistant professor of biochemistry at a Med-Sci school may be different from those of being an assistant professor of chemistry at a U-Sci university. Years ago, Med-Sci faculty functioned with modest research budgets and limited facilities (clinical faculty were expected to derive income from patients); faculty-hiring committees were willing to bet on an applicant's ability to obtain a National Institutes of Health (NIH) R01 grant before the tenure decision. Now, getting on the short list for a tenure-track position at most research-intensive basic science departments often requires demonstrated ability to be a PI on an NIH-funded project. Advancing up the academic ladder now requires obtaining multiple R01s so that external funding will supply 80%–90% of the faculty member's salary by the time of tenure decision.

Does the emphasis on competition and raising money influence the gender imbalance? NIH data show that, although the first R01 grant proposal from a woman fares as well in NIH study sections as that from a man, it is usually for less money, is less likely to get funded as a competing renewal, and is less likely to be followed by a second proposal from the same PI.<sup>8</sup> Underestimating budgets, postponing a timely grant renewal, and not planning expansion into a second area of research are all signs of timidity and low self-confidence. They are also characteristics of women who avoid competition.<sup>9</sup> Presumably, mentoring to enhance self-confidence would increase the pool of women who might choose to become faculty in Med-Sci basic science departments.

## Transforming the Medical School Culture

The gender differences between Med-Sci basic science departments and main-campus U-Sci science departments suggest that although university-wide departments are moving toward institutional changes that promote diversity, such changes are not occurring in many medical schools. However, there is evidence that a university with a well-developed ADVANCE Institutional Transformation program can influence its medical school on the benefits of hiring diverse faculty<sup>6</sup>: The highest percentage of women among tenured faculty in Med-Sci basic science departments was 33% for a public institution whose U-Sci departments had an ADVANCE program. (The lowest percentage of women in Med-Sci tenured faculty, 16%, was found in a private medical school.)

The emphasis on entrepreneurial behavior of medical school faculty developed to generate income and fund expansion of medical institutions. Until NIH grant policies change to abate the intense pressure on Med-Sci faculty to bring in income, attention to greater diversity at Med-Sci institutions will need to be redoubled. Medical schools will need to fix other potentially destructive components of their culture, as Beckerle and colleagues noted.<sup>10</sup> A key solution is to create an infrastructure of inclusion by acknowledging the value of a more diverse faculty, by giving attention to diversity during student recruitment and retention, by recognizing the importance of role models in ensuring diversity among medicine's future leaders, and by broadening health research initiatives via a more diverse research community. The resulting changes will benefit the majority of faculty: revaluing team research,

**One distinguishing characteristic from U-Sci departments is that Med-Sci faculty members must generate substantial income to support both research and faculty salaries.**



relieving faculty stress, developing structured mentoring systems, rewarding mentors, and recognizing the value of service. Improvements in these areas have already been tested in universities with institutional transformation programs<sup>11</sup> and are ready to be imported into the medical research arena. ■

—Phoebe S. Leboy, *University of Pennsylvania*,  
and Sandra K. Masur, *Chair, Women in Cell  
Biology Committee*

## Note

Phoebe S. Leboy died on June 16, 2012, at the age of 77, of amyotrophic lateral sclerosis. She was an emerita professor in the Department of Biochemistry, School of Dental Medicine, University of Pennsylvania, which she joined in 1967. Her research was on nucleic acid modifications and on bone-forming adult stem cells. Her activism for women scientists made Penn a model for other academic institutions in its programs for women, with the founding of the Penn Women's Center, a Women's Studies Program, victim support and special services, and increased campus safety for women. After her retirement from the university after almost 40 years, Leboy served as president of the Association for Women in Science. At the time of her death she held a grant from the National Science Foundation on gender inequity in science and some of those results are reported here and in reference 7. She was an ASCB member since 1961.

## References

<sup>1</sup>ADVANCE: Univ. Michigan. Institutional Indicators of Diversity for Faculty at the University of Michigan: AY2010. [www.advance.rackham.umich.edu/AY2010IndicatorReport-Public.pdf](http://www.advance.rackham.umich.edu/AY2010IndicatorReport-Public.pdf).

<sup>2</sup>Martinez ED, Botos J, Dohoney KM, Geiman TM, Kolla SS, Olivera A, Qiu Y, Rayasam GV, Stavreva DA, Cohen-Fix O (2007). Falling off the academic bandwagon. Women are more likely to quit at the postdoc to principal investigator transition. *EMBO Rep* 8, 977–981.

<sup>3</sup>Ceci SJ, Williams WM (2011). Understanding current causes of women's underrepresentation in science. *Proc Natl Acad Sci USA* 108, 3157–3162.

<sup>4</sup>Association of American Medical Colleges (2010). U.S. Medical School Faculty, 2010. Table 19: Sex, Race/Hispanic Origin, Tenure Status, and Department. <https://www.aamc.org/download/169822/data/10table19.pdf>.

<sup>5</sup>National Science Foundation, National Center for Science and Engineering Statistics (2010). Survey of Earned Doctorates. [http://www.nsf.gov/statistics/sed/data\\_table.cfm](http://www.nsf.gov/statistics/sed/data_table.cfm) (last accessed January 2012).

<sup>6</sup>Perez L (2008). The disappearing biomedical faculty women. *AWIS Magazine* 37 (3), 28–30.

<sup>7</sup>Leboy PS, Madden JF (in press). Limitations on diversity in basic science departments. *DNA Cell Biol*.

<sup>8</sup>NIH Data Book: Data by Gender. <http://www.report.nih.gov/nihdatabook/Default.aspx?catid=15>.

<sup>9</sup>Datta Gupta N, Poulsen A, Villeval MC (in press). Gender matching and competitiveness: experimental evidence. *Econ Inq*.

<sup>10</sup>Beckerle MC, Reed KL, Scott RP, Shafer MA, Townner D, Valentine HA, Zahniser NR (2011). Medical faculty development: a modern-day odyssey. *Sci Transl Med* 3 (104), 1–3.

<sup>11</sup>Bilimoria D, Liang X (2011). Gender Equity in Science and Engineering: Advancing Change in Higher Education. New York: Routledge Press.

**The gender differences between Med-Sci basic science departments and main-campus U-Sci science departments suggest that although university-wide departments are moving toward institutional changes that promote diversity, such changes are not occurring in many medical schools.**

## New ASCB Member Benefit: One-on-One CV Review

Need some help with a cover letter, CV, resume, statement of teaching philosophy, or other document for the next step in your career? Members of the ASCB Education Committee are willing to help. Just fill out a short form ([www.ascb.org](http://www.ascb.org)), and we'll put you in touch with the right reviewer. Then the two of you can decide which digital collaboration tool to use (email, Google Docs, Skype, Wikispaces, etc.). You must be an ASCB member to take advantage of this new service. ■

—Thea Clarke

## ASCB Joins Chorus Calling for Sensible Deficit Reduction

Most people would agree that policymaking by train wreck is not sensible. Unfortunately, that is the very situation the federal government is facing unless things change quickly. Because of the 2011 failure by the Joint Select Committee on Deficit Reduction, aka the Super Committee, to make \$1.2 trillion in targeted budget cuts, we may be headed for a fiscal train wreck.

When the Super Committee failed to make specific cuts, a provision originally intended as a Sword of Damocles to inspire lawmakers to action went into effect: automatic, across-the-board spending cuts. This provision, referred to as sequestration, will mean a 7.8% cut to all non-defense discretionary (NDD) portions of the federal budget, including the U.S. National Institutes of Health (NIH) and the National Science Foundation (NSF). Federal defense programs would be cut by about 7.5%. Unless an alternative plan is approved, the cuts will begin in January 2013.

Republicans in the U.S. House of Representatives have approved a plan that would exempt the Defense Department from sequestration cuts. Exempting the Defense Department from the cuts would significantly increase the cuts to other federal programs. It is unlikely that the Senate would approve such a plan or that it would be signed into law by President Obama.

In an effort to encourage a balanced approach to deficit reduction, the ASCB joined forces with nearly 3,000 other national, state, and local groups whose missions would be hurt by across-the-board cuts. The organizations sent a letter to all members of Congress, saying, “NDD



U.S. Representative Edward Markey (D-MA)

programs represent a small and shrinking share of the federal budget and of our overall economy. The NDD budget represented just 3.4 percent of our country's Gross Domestic Product (GDP) in 2011, consistent with historical levels. Under the bi-partisan Budget Control Act, by 2021 NDD funding will decline to just 2.5 percent of GDP, the lowest level in at least 50 years. NDD programs are not the reason behind our growing debt. In fact, even completely eliminating all NDD programs would still not

balance the budget. Yet NDD programs have borne the brunt of deficit reduction efforts.”

In an effort to understand the impact of sequestration on the federal programs administered by the U.S. Department of Health & Human Services (HHS), U.S. Representative Edward Markey (D-MA), a strong supporter of the NIH, wrote to HHS Secretary Kathleen Sebelius, asking for a detailed account of how sequestration would be applied to HHS programs.

In her response to Markey, Ellen Murray, Assistant Secretary of HHS for Financial Services, highlighted the implications of sequestration on the NIH. Murray wrote, “As you note, the cuts projected by CBO [Congressional Budget Office] would limit the Department's ability to accelerate scientific knowledge and innovation. The National Institutes of Health (NIH) could potentially eliminate 2,300 new and competing research project grants, with nearly 300 fewer grants issued by the National Cancer Institute.”

To read the exchange of letters between Rep. Markey and HHS, go to <http://tinyurl.com/bubj3e9>. ■

—Kevin M. Wilson

*Advocacy, continued from page 1*

## **Your Capitol Hill Day**

The typical Capitol Hill Day begins with a little “boot camp” over breakfast with ASCB’s Director of Public Policy, Kevin Wilson, and Coalition for the Life Sciences (CLS) National Director Lynn Marquis. During this meeting, participants get talking points and learn how to succinctly deliver our message to members of Congress or their staff. If you are worried that you do not have the skill set to meet with lawmakers, rest assured that the ASCB public policy team will prepare you to be an effective advocate. One of us (Easley) has been involved in four Capitol Hill Days, and before his first breakfast boot camp he was a nervous wreck. Wilson and Marquis are superb at calming nerves and putting participants at ease, as well as supplying all the appropriate materials needed for the meetings.

After the boot camp, participants set off for meetings in groups, always accompanied by either Wilson or another ASCB staff member. The ASCB staff member is there to start the conversation, but the participants run the meetings after the introductions. The participant from the relevant district or state serves as the point person. In these meetings, you typically first describe your research and then explain why congressional support for the NIH is critical to both your current work and future career objectives. You can then discuss how budget cuts would affect your career advancement. Most staffers or members of Congress like hearing personal accounts, which can have a stronger impact than mere numbers on a piece of paper. For example, in this last Capitol Hill Day, we met with Congressman Tim Murphy. Easley explained that cuts to the NIH budget would almost certainly cause him to look abroad for a job because of the increasing scarcity of positions in academia here in the United States. These meetings last about half an hour, and each participant speaks to seven or eight congressional offices during a Capitol Hill Day.

## **The Importance of Effective Advocacy**

Like many who read this, we are firm believers that strong government support of basic scientific research directly promotes our

country’s health, economy, and overall standing in the world. Many people have a vague, instinctive notion that communicating this belief to members of Congress is part of our professional and civic duties, yet few of us are willing to make advocacy a priority as a crucial part of being a scientist. Having participated in ASCB’s recent Capitol Hill Day, we have gained a deeper understanding of the importance of advocacy and the potential consequences of poor advocacy.

***Making Our Presence Felt.*** The ASCB represents more than 9,000 scientists, and the broader community of the CLS represents more than 60,000 scientists. Members of Congress need regular reminders that, for many of us, the NIH budget is an issue of major interest. We need to constantly reiterate that many registered voters will appreciate the member’s support of a healthy NIH budget.

***Establishing Dialogue and Cultivating Relationships with Lawmakers.*** Members of Congress often base their legislative decisions on very little information. Reaching out to lawmakers creates the opportunity for ongoing dialogue that can help keep them informed and tuned in to the best interests of basic research in our country. Often, members of Congress are receptive to enthusiastic advocacy and reciprocate with questions and correspondence. Such relationships are invaluable and can help bolster support for a healthy NIH budget.

Equally important, if not more important, are the opportunities to establish contacts with congressional staffers. Although every meeting we have had directly with members has been an amazing experience, cultivating a relationship with a staffer reaps a longer-term benefit. Staffers are tasked with educating their legislators on a specific subject and thus can directly influence how a member of Congress votes. Staffers also frequently move between offices in Washington, and we can hope that they will take their support for basic research with them to their new environment.

***Turning Supporters into Champions.*** When confronted by ASCB advocates, most lawmakers or staffers express enthusiastic support for the NIH. The NIH boasts strong returns on taxpayer investment, creates jobs, and fuels biomedical solutions that ultimately lower long-term healthcare costs. Meeting with lawmakers

on Capitol Hill Day offers an opportunity to remind lawmakers who support a healthy NIH budget why they should support this particular cause.

### The Consequences of Poor Advocacy

A failure to advocate sound research policies and a healthy NIH budget may have dire consequences.

***Fading into the Background.*** The halls of congressional office buildings are swarming with suits advocating every professional cause and interest group imaginable. These advocates are all fighting for their piece of the pie, scrambling to convince lawmakers of the importance of a particular cause or piece of legislation. Amid all the other advocacy efforts, it is difficult not to feel like a blip on the radar. But blips on radars serve an important function: They make a noise. We don't believe that our blip was any noisier than the other blips that day, but failing to show up on the radar has severe consequences. Indeed, many of the advocates descending upon congressional offices represent competing interests. Given the current political climate, the NIH budget (which has long received broad bipartisan support) may suffer as members of Congress go to bat for other issues. As members of the ASCB and the community of basic scientific researchers, we must meet with lawmakers to express our passion for a healthy NIH budget. If we do not, we may end up with a smaller piece of the pie.

***Losing Our Seat at the Table.*** Despite the value of a healthy NIH budget for this country, many members of Congress have little interest in government support of basic research. Indeed, many lawmakers represent districts that may not directly benefit from NIH funding. Consider that for the most recent Capitol Hill Day, the ASCB Public Policy team requested meetings with 60 congressional offices, only 19 of which agreed to meet with us. Some of the 41 offices that declined meetings have simply never spoken to anyone about science funding. Further attempts to contact them may yield an opportunity to educate them about the indirect impact the NIH budget can have on their districts—but if we do not try, we will never reach them. Some of the offices that declined meetings, however, represent districts

in which many of us live. We need to bring our representatives to the table, and communicating with congressional representatives is an effective way to do so. Perhaps you live in a district other than the one in which your lab is located. Without your input, your home representative may not realize the impact of the NIH on her or his constituents. Ultimately, if we can't bring more people to the table, we risk lackluster support for the NIH budget.

***Losing Our Lead in Basic Research.*** With the emergence of strong basic research support initiatives in many countries, the United States must reaffirm its commitment to lead the world in basic research and innovation. If we as researchers take for granted that the NIH will always be able to sustain our country's status as a world leader in basic research, we are in trouble. The United States has long enjoyed the ability to attract the best talent from around the world. However, we risk not only losing this lure but also losing NIH-trained American talent to other countries. Thus, we must constantly remind lawmakers of the potential consequences of failing to adequately support the NIH.

### How You Can Get Started as an Advocate for Science

ASCB, along with five other societies, supports the CLS. In addition to advocating policies that advance basic biological research, the CLS runs Capitol Hill Days and offers resources for keeping informed about legislation. ASCB and the CLS have several ways to help members get involved in science advocacy.

***Sign up for a Capitol Hill Day.*** Wilson and Marquis will help you get started, just as they helped us. CLS Capitol Hill Days are open to members of the supporting societies, and they even have several travel grants to help defray the cost of attending. The next Capitol Hill Day is September 12. Visit the CLS website ([www.coalitionforlifesciences.org](http://www.coalitionforlifesciences.org)) for more information. If you are going to be in Washington, DC, get in touch with Kevin Wilson ([kwilson@ascb.org](mailto:kwilson@ascb.org)) ahead of time, and he will help you set up meetings with your representatives.

If you can't make it to Washington, many other opportunities for science advocacy are available:



***We Are Research, a Science Advocacy Week.*** Circle the first week in October as a good time to kick-start your advocacy efforts. The ASCB Public Policy Committee is leading an effort to get ASCB members involved in explaining the importance of scientific research—not only to people in Washington but also to the wider community. If you can't wait to get involved, check out the helpful hints on communicating with members of the public at any time on the We Are Research website ([www.ascb.org/weareresearch.html](http://www.ascb.org/weareresearch.html)).

***Join the CLS's Congressional Liaison Committee.*** You can receive alerts about upcoming legislation and find more helpful advice for becoming an advocate.

***Send an Email or a Letter to Your Members of Congress.*** You can contact your representatives in several easy ways. All members of Congress have their own websites through which you can send an email or find a mailing address. You may feel like your communication is disappearing into the ether, but someone on staff tracks all correspondence coming into the office and the issue to which it pertains. If an important vote is coming up, be sure to let your opinion be heard, and if your representative supports science, send a thank-you note for continuing support.

***Visit Your Representative's Local Office.*** You do not need to travel all the way to Washington to meet with your representatives' staff members. People working in local congressional offices could also benefit from the information you can provide.

Not sure who your representatives are, or whether your home and lab are in the same district? This tool can help you find the correct offices and websites: <http://capwiz.com/jscpp>.

One of the biggest misconceptions about Capitol Hill Day visits and advocacy in general is that each participant/advocate needs to be a senior PI. Advocacy at every level is strongly encouraged, and participation in Capitol Hill Days is no exception. We would love to see more graduate students and postdocs get involved in advocacy because young scientists can describe how budget cuts directly influence their short-term and long-term futures. Most congressional members and staffers enjoy speaking with scientists at all levels and are genuinely interested in biomedical research—but they seem to especially enjoy hearing from young scientists. Policy makers are interested in understanding how current budget decisions affect the futures of young scientists. ■

—Chas Easley, *University of Pittsburgh*; Audrey Howell, *Stanford University*; Jason A. MacGurn, *Cornell University*

## CLS on Capitol Hill

The Coalition for the Life Sciences (CLS) hosted several Congressional Biomedical Research Caucuses in May and June.



On May 30, Dan Portnoy from the University of California, Berkeley, presented the briefing "Listeria: From Food Poisoning to Cancer Immunotherapy."



On June 6, Bonnie Bassler from Princeton University (shown being greeted by Congressman Rush Holt [D-NJ]) presented "How Do Bacteria Communicate with Each Other and What Does That Mean for People?"



On June 20, Nobel laureate Craig Mello from the University of Massachusetts Medical School presented a briefing entitled "Silencing Human Disease with RNA interference." Mello (left) is pictured with Rep. Jim McGovern (D-MA).

You spend a lifetime  
trying to save money...



**Luckily, you could save right now with  
GEICO'S SPECIAL DISCOUNT.**

After years of saving and IRA accounts, you hope you'll have enough money put away to retire. Let your membership status help you save money with a special discount from GEICO just for being a **member of ASCB** - it's an easy way to increase your account balance.

Get a free quote. **GEICO**<sup>®</sup>  
1-800-368-2734  
[geico.com/sci/ascb](http://geico.com/sci/ascb)



**MENTION YOUR ASCB MEMBERSHIP TO SAVE EVEN MORE.**

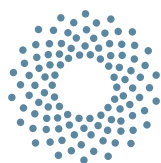
Some discounts, coverages, payment plans and features are not available in all states or all GEICO companies. Motorcycle coverage is underwritten by GEICO Indemnity Company. Homeowners, renters, boat and PWC coverages are written through non-affiliated insurance companies and are secured through the GEICO Insurance Agency, Inc. Discount amount varies in some states. One group discount applicable per policy. Coverage is individual. In New York a premium reduction may be available. GEICO is a registered service mark of Government Employees Insurance Company, Washington, D.C. 20076; a Berkshire Hathaway Inc. subsidiary. GEICO Gecko image © 1999-2012. © 2012 GEICO.

# 2012 Annual Meeting Symposia, Frontier Symposia, Minisymposia, and Working Groups

SUNDAY DECEMBER 16	MONDAY DECEMBER 17	TUESDAY DECEMBER 18	WEDNESDAY DECEMBER 19
<b>Symposia</b>			
<b>8:00 am-9:30 am</b>			
Symposium 1 Cell Fate Decisions	Symposium 2 New Model Systems for Cell Biology	Symposium 3 Prokaryotic Communities	Symposium 4 Chromatin Dynamics
<b>Frontier Symposia</b>			
<b>10:30 am-12:00 pm</b>			
Frontier Symposium 1 Cell Biology and Medicine	Frontier Symposium 2 Applying Physics, Engineering, Computation to Cell Biology	Frontier Symposium 3 Synthetic Biology	
<b>Minisymposia</b>			
<b>4:30 pm-6:35 pm</b>			
Cancer Cell Biology Co-Chairs: <i>Cristina Lo Celso</i> , and <i>Jeffrey Settlement</i>	Autophagy, Self Renewal, and Cell Death Co-Chairs: <i>Ana Maria Cuervo</i> , and <i>Feroz Papa</i>	Cell Biology of the Neuron Co-Chairs: <i>Wieland B. Hufner</i> , and <i>Fumio Matsuzaki</i>	Actin Organization and Dynamics Co-Chairs: <i>Enrique M. De La Cruz</i> , and <i>Ann Miller</i>
Cell Mechanics and Intermediate Filaments Co-Chairs: <i>Harald Herrmann</i> , and <i>Sarah Köster</i>	Cell Biology of Neurodegeneration Co-Chairs: <i>Don Cleveland</i> , and <i>Morgan Sheng</i>	Cell Biology of Regeneration Co-Chairs: <i>Rachel Robert-Galbraith</i> , and <i>Curtis Thorne</i>	Cell Growth and Cell Cycle Control Co-Chairs: <i>Sue Jaspersen</i> , and <i>Jan Skotheim</i>
Cell Migration and Motility Co-Chairs: <i>Marianne Bronner</i> , and <i>John Condeelis</i>	Cell-Cell and Cell-Matrix Interactions Co-Chairs: <i>Joan Brugge</i> , and <i>Viola Vogel</i>	Cell Polarity Co-Chairs: <i>Yves Barral</i> , and <i>Stephan Grill</i>	Development and Morphogenesis Co-Chairs: <i>Carl-Philipp Heisenberg</i> , and <i>Ichiro Nishii</i>
Integrated Research and Teaching and Its Benefits to Faculty and Students Co-Chairs: <i>David Botstein</i> , and <i>Karen Kalumuck</i>	Cell Division Co-Chairs: <i>Daniel Gerlich</i> , and <i>Gohta Goshima</i>	Cellular Stress, Protein Folding, and Disease Co-Chairs: <i>Nancy M. Bonini</i> , and <i>Andy Dillin</i>	Membrane Organization and Lipid Dynamics Co-Chairs: <i>Vytas A. Bankaitis</i> , and <i>Margarida Barroso</i>
Molecular Motors Co-Chairs: <i>Vladimir Gelfand</i> , and <i>Kathleen Trybus</i>	Intracellular Sorting and Trafficking Co-Chairs: <i>Wanjin Hong</i> , and <i>Anne Spang</i>	Micro- and Coding RNA Co-Chairs: <i>Cliff Brangwynne</i> , and <i>Tracy Johnson</i>	Nuclear Structure and Function Co-Chairs: <i>Kerry Bloom</i> , and <i>Anne Villeneuve</i>
Regulation/Organization of the Genome Co-Chairs: <i>Daniela Rhodes</i> , and <i>David Sherratt</i>	Microtubule Organization and Dynamics Co-Chairs: <i>Elizabeth C. Engle</i> , and <i>Luke Rice</i>	Molecular Basis of Infectious Disease Co-Chairs: <i>Norma Andrews</i> , and <i>Pascal Cossart</i>	Prokaryotic Cell Biology Co-Chairs: <i>Martin Thanbichler</i> , and <i>Ethan Garner</i>
Signal Transduction/Signaling Networks Co-Chairs: <i>Fumiyu Ikeda</i> , and <i>Galit Lahav</i>	Physical and Computational Tools for Cell Biology Co-Chairs: <i>Adam Cohen</i> , and <i>Jan Liphardt</i>	Organelle Structure and Vesicle Formation Co-Chairs: <i>Elizabeth Conibear</i> , and <i>Richard A. Kahn</i>	Working Group: New Technologies in Imaging Co-Chairs: <i>Catherine Galbraith</i> , and <i>Eva Nogales</i>
Stem Cells and Induced Pluripotency Co-Chairs: <i>Margaret Fuller</i> , and <i>Marius Wernig</i>	Working Group: Visualizing Biological Models and Information Co-Chairs: <i>Janet Iwasa</i> , and <i>Graham Johnson</i>	Working Group: New Technologies in Proteomics Co-Chairs: <i>Pieter Dorrestein</i> , and <i>Steve Gygi</i>	Working Group: New Technologies in Molecular Biology/Genetics Co-Chairs: <i>L. Stirling Churchman</i> , and <i>A. Francis Stewart</i>

 Intersection of Cell Biology and the Physical Sciences  
 Cell Biology and Medicine





THE AMERICAN SOCIETY  
FOR CELL BIOLOGY

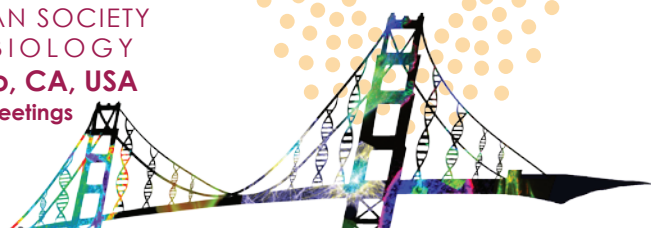
*The science of life, the life of science*

# 2012 ANNUAL MEETING

THE AMERICAN SOCIETY  
FOR CELL BIOLOGY

San Francisco, CA, USA

[www.ascb.org/meetings](http://www.ascb.org/meetings)



December 15–19, 2012 | Ron Vale, President | Tony Hyman, Program Chair

## SYMPOSIDA

### Cell Fate Decisions

Hans Clevers, Hubrecht Institute, The Netherlands

Tariq Enver, The Weatherall Institute of Molecular Medicine, MRC, University of Oxford, UK

Shinya Yamanaka, Center for iPS Cell Research and Application (CiRA), Kyoto University, Japan

### New Model Systems for Cell Biology

Lawrence S.B. Goldstein, University of California, San Diego, School of Medicine

Nicole King, University of California, Berkeley

Alejandro Sánchez Alvarado, Stowers Institute/HHMI

### Prokaryotic Communities

Bonnie Bassler, Princeton University/HHMI

Lara Hooper, University of Texas Southwestern Medical Center at Dallas/HHMI

Dianne K. Newman, California Institute of Technology/HHMI

### Chromatin Dynamics

Barbara Meyer, University of California, Berkeley/HHMI

Kim Nasmyth, University of Oxford, UK

## FRONTIER SYMPOSIDA

### Cell Biology and Medicine

Susan Lindquist, Whitehead Institute for Biomedical Research and Massachusetts Institute of Technology/HHMI

Anne O'Garra, MRC National Institute for Medical Research, Mill Hill, London, UK

Joseph Schlessinger, Yale University School of Medicine

### Applying Physics, Engineering, Computation to Cell Biology

William Bialek, Princeton University

Margaret Gardel, University of Chicago

Rob Phillips, California Institute of Technology

### Synthetic Biology

Jay D. Keasling, University of California, Berkeley, and Lawrence Berkeley National Laboratory

Wendall Lim, University of California, San Francisco/HHMI

Laurie Zoloth, Northwestern University Feinberg School of Medicine and Weinberg College of Arts and Sciences

## Travel Awards

Childcare

Minorities

Postdocs in Cell Biology, Physical Sciences, or Biotech

Undergraduate Faculty

Undergraduate Students, Graduate Students

Application Deadline: September 4

## MINISYMPOSIDA

### Actin Organization and Dynamics

Enrique M. De La Cruz, Yale University

Ann Miller, University of Michigan, Ann Arbor

### Autophagy, Self Renewal, and Cell Death

Ana Maria Cuervo, Albert Einstein College of Medicine

Feroz Papa, University of California, San Francisco

### Cancer Cell Biology

Cristina Lo Celso, Imperial College London, UK

Jeffrey Settleman, Genentech, Inc.

### Cell Biology of Neurodegeneration

Don Cleveland, University of California, San Diego

Morgan Sheng, Genentech, Inc.

### Cell Biology of Regeneration

Rachel Robert-Galbraith, University of Illinois, Urbana-Champaign

Curtis Thorne, University of Texas Southwestern Medical Center Dallas

### Cell Biology of the Neuron

Wieland B. Huttner, Max Planck Institute of Molecular Cell Biology and Genetics, Germany

Fumio Matsuzaki, RIKEN Center for Developmental Biology, Kobe, Japan

### Cell Division

Daniel Gerlich, Institute of Molecular Biotechnology of the Austrian Academy of Sciences, Austria

Gohta Goshima, Nagoya University, Japan

### Cell Growth and Cell Cycle Control

Sue Jaspersen, Stowers Institute for Medical Research

Jan Skotheim, Stanford University

### Cell Mechanics and Intermediate Filaments

Harald Herrmann, German Cancer Research Center, Heidelberg, Germany

Sarah Köster, Georg-August-University Göttingen, Germany

### Cell Migration and Motility

Marianne Bronner, California Institute of Technology

John Condeelis, Albert Einstein College of Medicine

### Cell Polarity

Yves Barral, ETH Zurich, Switzerland

Stephan Grill, Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany

### Cell-Cell and Cell-Matrix Interactions

Joan Brugge, Harvard Medical School

Viola Vogel, ETH Zurich, Switzerland

### Cellular Stress, Protein Folding, and Disease

Nancy M. Bonini, University of Pennsylvania/HHMI

Andy Dillin, Salk Institute for Biological Studies/HHMI

### Development and Morphogenesis

Carl-Philipp Heisenberg, Institute of Science and Technology Austria, Austria

Ichiro Nishii, Temasek Life Sciences Lab, Singapore

### Integrated Research and Teaching and Its Benefits to Faculty and Students

David Botstein, Princeton University

Karen Kalumuck, Exploratorium

### Intracellular Sorting and Trafficking

Wanjin Hong, Institute of Molecular and Cell Biology, Singapore

Anne Spang, Biozentrum, University of Basel, Switzerland

### Membrane Organization and Lipid Dynamics

Vytas A. Bankaitis, University of North Carolina School of Medicine

Margarida Barroso, Albany Medical College

### Micro- and Coding RNA

Cliff Brangwynne, Princeton University

Tracy Johnson, University of California, San Diego

### Microtubule Organization and Dynamics

Elizabeth C. Engle, Children's Hospital Boston/Harvard Medical School/HHMI

Luke Rice, University of Texas Southwestern Medical Center

### Molecular Basis of Infectious Disease

Norma Andrews, University of Maryland, College Park

Pascale Cossart, Institut Pasteur, France

### Molecular Motors

Vladimir Gelfand, Northwestern University Feinberg School of Medicine

Kathleen Trybus, University of Vermont, Burlington

### Nuclear Structure and Function

Kerry Bloom, University of North Carolina, Chapel Hill

Anne Villeneuve, Stanford University School of Medicine

### Organelle Structure and Vesicle Formation

Elizabeth Conibear, University of British Columbia, Canada

Richard A. Kahn, Emory University School of Medicine

### Physical and Computational Tools for Cell Biology

Adam Cohen, Harvard University

Jan Liphardt, University of California, Berkeley

### Prokaryotic Cell Biology

Martin Thanbichler, Max Planck Institute for Terrestrial Microbiology

Ethan Garner, Harvard Medical School

### Regulation/Organization of the Genome

Daniela Rhodes, Nanyang Technological University, Singapore, and MRC Laboratory of Molecular Biology Cambridge, UK

David Sherratt, University of Oxford, UK

### Signal Transduction/Signaling Networks

Fumio Ikeda, Institute of Molecular Biotechnology, Austria

Galit Lahav, Harvard Medical School

### Stem Cells and Induced Pluripotency

Margaret Fuller, Stanford University School of Medicine

Marius Wernig, Stanford University School of Medicine



## WORKING GROUPS

### New Technologies in Imaging

Catherine Galbraith, National Institute of Child Health and Human Development/NIH

Eva Nogales, University of California, Berkeley/HHMI

### New Technologies in Molecular Biology/Genetics

L. Stirling Churchman, Harvard Medical School

A. Francis Stewart, BioInnovationsZentrum, TU Dresden, Germany

### New Technologies in Proteomics

Pieter Dorrestein, University of California, San Diego

Steve Gygi, Harvard Medical School

### Visualizing Biological Models and Information

Janet Iwasa, Harvard Medical School

Graham Johnson, University of California, San Francisco

## Meeting Opens Saturday Morning!

### Minorities Affairs Committee Programs

### Postdoc/Student Town Hall with Council

### International Roundtable for Postdocs/Students *(by invitation)*

Subgroups: 12:30 pm-5:00 pm

Keynote Symposium: 6:00 pm



**Steven Chu**

U.S. Secretary of Energy



**Arthur D. Levinson**

Chairman of Genentech, Inc. and Apple, Inc.

## DEADLINES

### Sept 4

Regular Abstract Submission  
*(poster consideration only)*

### October 10

Early Meeting Registration

### October 17

Late Abstract Submission

## New! Meeting Threads

### Cell Biology and Medicine

#### Saturday\*

- Keynote Speaker: Arthur D. Levinson, Chair of Genentech and Apple, Inc. *(the public may sign up to attend)*

#### Sunday-Wednesday

- Frontier Symposium: Cell Biology and Medicine
- Panel Discussion: Sense and Reproducibility: The Problem of Translating Academic Discovery to Drug Discovery, chaired by Ira Mellman
- Panel Discussion: Is There a New Paradigm for Drug Discovery?, chaired by James Sabry
- Career Presentation: Careers Outside Academia, with biotech representation
- Minisymposia: Cell Biology of Neurodegeneration, Cellular Stress, Protein Folding, and Disease; Molecular Basis of Infectious Disease; Stem Cells and Induced Pluripotency
- Working Groups: New Technologies in Molecular Biology/Genetics; New Technologies in Proteomics
- Science Discussion Tables: Meet Bay Area biotech scientists
- Career Discussion and Mentoring Roundtables, with biotech representation
- Travel awards available for postdocs in biotech

## The Intersection of Cell Biology and the Physical Sciences

#### Saturday\*

- Workshop: Open Problems in Biology Requiring the Physical Sciences, organized by Julie Theriot, Rob Phillips, and Dan Fletcher
- Interdisciplinary Gathering: Cell Biologists, Physical Scientists, Engineers, and Computational Scientists
- Keynote Speaker: Steven Chu, U.S. Secretary of Energy *(the public may sign up to attend)*

#### Sunday-Wednesday

- Frontier Symposium: Applying Physics, Engineering, Computation to Cell Biology, with Bill Bialek, Rob Phillips, and Margaret Gardel
- Symposium: Synthetic Biology, with Jay Kiesling, Wendell Lim, and Laurie Zoloth
- Minisymposia: Cell Mechanics and Intermediate Filaments; Molecular Motors; Physical and Computational Tools for Cell Biology
- Working Groups: New Technologies in Imaging; Visualizing Biological Models and Information
- Science Discussion Tables: Informal discussions with leading scientists doing interdisciplinary research
- Career Discussion and Mentoring Roundtables, with physical sciences representation
- Specialized Poster Topics
- Travel awards available for postdocs in the physical sciences

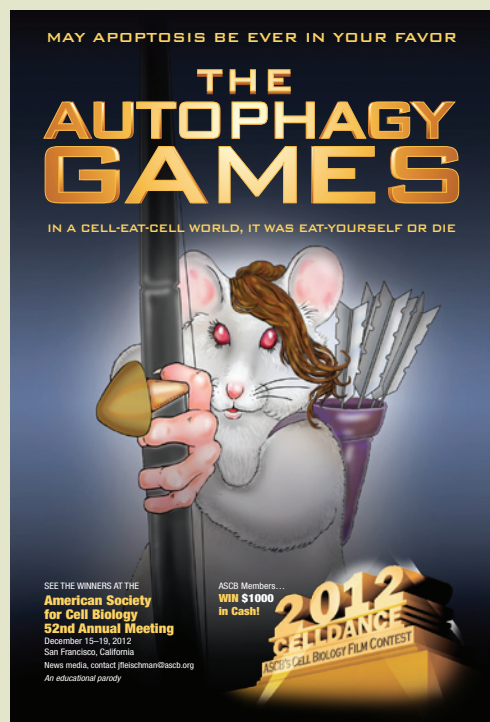
\*Programs are subject to change.

## New in 2012

Each ASCB member (regular, postdoctoral, and emeritus) may sponsor two abstracts. Undergraduate and graduate student members may sponsor only their own abstract.



# Go Green, Win Cash in Celldance 2012 Video Contest



Can we point out that the top winners of ASCB's Celldance 2012 will split \$1,000 in cash prizes? Along with the money, the winners of Celldance 2012, the ASCB's cell biology film contest, will gain fame (fleeting) and the satisfaction of knowing that their astounding video images will open the eyes of the world to the wonders of cell biology.

Then there's the cash. The \$1,000 Celldance 2012 winners' reel will hit the big screen December 18 at the 52nd Annual Meeting in San Francisco plus lots of little screens thereafter on the Web. Celldance 2012 judges will be presenting checks worth \$1K to the best videos, "remixes" of classic cell biology sequences, animations, or any other dynamic imaging process that combines striking cell visuals with effective elucidation. The top prize alone is \$500. Second is two Ben Franklins, and third gets you a C-note. The ASCB's Public Information Committee (PIC), which organizes Celldance, also hands out \$200 to the best "Public Outreach" film that communicates the excitement of cell biology to the general public or students.

Money—\$1,000 U.S.—is at stake here for ASCB members or member applicants. The Celldance submission deadline is Thursday, September 27, by 5:00 pm EDT. Winners will be notified by October 19. The Celldance Awards—including checks totaling \$1,000—will be handed out December 18 in San Francisco. You don't have to be present to win, but your check will be lonely in the mail.

Finally, did we mention that Celldance has cash prizes? Rules and entry portal are at [www.ascb.org/2012Celldance.html](http://www.ascb.org/2012Celldance.html). ■

—John Fleischman

## New Media and Old, PIC Needs Outreach Help

ASCB's Public Information Committee (PIC) needs volunteers for a working group of Associates to screen abstracts for its annual press book and to "CellTweet" about breaking discoveries. "PIC's original mandate was to spread the word about our science through the traditional news media," says PIC Chair Simon Atkinson. "We still do that with our press book for journalists at the Annual Meeting. But PIC is expanding into social media like Twitter to take cell biology directly to the public. That's why we need more PIC Associates."

The press book features PIC's "Novel & Newsworthy" stories based on abstracts selected from among the hundreds submitted for the Annual Meeting, Atkinson explains. To plow through the abstracts and winnow them down to those important or intriguing enough to appeal to journalists requires panels of screeners. "We couldn't do it so thoroughly without our PIC Associates," says Atkinson.

PIC has also started "CellTweets," a Twitter feed linked to an ASCB website page that features stories about recently published data and discoveries. PIC Associates frequently tweet about stories from ASCB's journal *Molecular Biology of the Cell*. "It's sort of a journal club on Twitter," says Atkinson, "with ASCB members using their background to translate intriguing papers into ordinary language for those outside cell biology. Twitter is giving biologists a radically different way to reach ordinary people." Writing a CellTweet is also great for sharpening communication skills, says Atkinson. "Making ASCB members better science communicators is another part of the PIC mandate."

Members interested in becoming PIC Associates should contact Atkinson or John Fleischman, ASCB's Science Writer, at [jfleischman@ascb.org](mailto:jfleischman@ascb.org). ■

—John Fleischman



*Workshop attendees queried presenters on career hot topics.*

## MAC Programs Further Careers of Students, Scientists

Hosting its annual workshop and conducting its summer meeting, the ASCB Minorities Affairs Committee (MAC) met in San Antonio, TX, for an exciting and remarkable time. MAC Chair Renato Aguilera stated, “The volunteer members of the MAC work hard and give back to the scientific and minority communities by running the many MAC programs.” The MAC is committed to furthering career development for minority students and early-career scientists. Please see highlights below on these programs and meetings:

- MAC Summer Meeting
- MAC Seventh Annual Junior Faculty and Postdoctoral Fellows Career Development Workshop
- Visiting Professors
- MAC Mentoring Program
- Linkage Fellows
- Marine Biological Laboratory and Friday Harbor Laboratories Students

### MAC Summer Meeting

Grant renewal and ongoing activities were the focus of the MAC annual summer meeting, held this year in San Antonio, TX, on June 11. The Committee, under the leadership of Chair Renato Aguilera, discussed programs funded by a U.S. National Institutes of Health/National Institute of General Medical Sciences/Minority Access to Research Careers (NIH/NIGMS/MARC) grant. The MAC spent considerable time discussing programs and initiatives for the upcoming MARC grant renewal.

MARC grant PI David Burgess reported, “The remarkable commitment and quality work by the MAC is borne out by the outcomes as documented by the MAC’s external evaluator, Joy Quill, of C. J. Quill & Associates, Inc. These evaluations point out the programs’ high impact on the participants’ careers and on

the enhancement of teaching and training in cell biology.”

MAC ASCB Annual Meeting programs were also discussed as the MAC gears up for the ASCB Annual Meeting in December. The MAC is expecting a great program that will include a grant writing workshop and other exciting programs and events.

### MAC Seventh Annual Junior Faculty and Postdoctoral Fellows Career Development Workshop

“This workshop should be required for all senior postdocs and those just starting in academic positions. The meeting far surpassed my expectations and I feel extremely lucky to have attended,” shared workshop attendee Tessa Burch-Smith. MAC’s Seventh Annual Junior Faculty and Postdoctoral Fellows Career Development Workshop, designed to provide information on publications, grant writing, mentoring, time management, professional development, lab management, and other topics critical for junior faculty and postdoctoral fellows, was held in San Antonio, TX, on June 9–10, 2012. The workshop had 30 attendees. Designed by an outstanding group of scientists, administrators, and teachers, the workshop has received many positive comments from attendees, reported MAC member and Workshop Planning Chair Sandra Murray. (See box for comments of other attendees.) According to evaluations, the Junior Faculty and Postdoctoral Fellows Career Development Workshop is one of the MAC’s finest programs.

Speakers and planners this year included:

- Renato Aguilera, Professor and Director of the Graduate Program in Biology, University of Texas at El Paso
- David Burgess, MARC grant PI and Professor of Biology, Boston College



- *Andrew Campbell*, MAC member and Associate Professor of Medical Science, Brown University
- *Franklin Carrero-Martinez*, MAC member and Assistant Professor, University of Puerto Rico, Mayaguez
- *Wilfred Denetclaw Jr.*, MAC member and Associate Professor, San Francisco State University
- *Deborah Harmon Hines*, MAC member and Vice Provost and Professor, University of Massachusetts Medical School
- *Michelle Juarez*, MAC member and Assistant Project Scientist, University of California, San Diego
- *Michael Leibowitz*, MAC member and Professor, Medical Microbiology and Immunology, University of California, Davis
- *Sandra Murray*, MAC member and Professor, University of Pittsburgh School of Medicine
- *Richard Rodewald*, Program Director for the Cellular Processes Cluster, National Science Foundation
- *MariaElena Zavala*, MAC member and Professor of Biology, California State University, Northridge
- *Hinda Zlotnik*, Acting Chief, Postdoctoral Branch, National Institute of General Medical Sciences, National Institutes of Health

## What Some Attendees Thought about the MAC Workshop



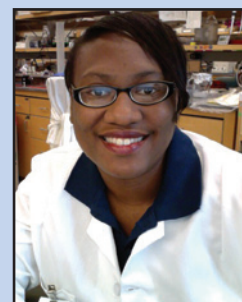
*Christopher J. Arellano*

"I really enjoyed meeting everyone at the workshop. I met so many people that were in different areas of research, but one thing I learned is that we are all going through a similar journey in our young academic careers. It was a great opportunity to listen to the stories of tenured faculty and the advice they gave on how to succeed in life—inside and outside the walls of academia. Thanks to all the organizers for putting together a great workshop."

—*Christopher J. Arellano*, Postdoctoral Fellow, University of Colorado, Boulder

"It would have been one of the biggest regrets of my academic career to have not attended the ASCB MAC Junior Faculty and Postdoc Career Development Workshop in San Antonio, TX. I have worked for over a decade to keep myself on the academic path, but now that I am drawing near the end of my advanced training position, I felt a bit like 'Alice in Wonderland.' The workshop helped to clear the fog surrounding transitioning to junior faculty. Now, I possess specific knowledge and a 'road map' to help navigate the next steps of my academic career. Moreover, I truly relished the opportunity to network. Thank you, ASCB MAC!"

—*Amalene Cooper-Morgan*, Postdoctoral Fellow, University of Massachusetts Medical School



*Amalene Cooper-Morgan*



*Sultan Jenkins*

"The ASCB MAC 2012 Junior Faculty and Postdoctoral Fellows Career Development Workshop was one of the most beneficial and enlightening events that I have ever attended. The advice and information that was provided by the senior faculty presenters were invaluable to me, primarily due to the fact that I am transitioning from a postdoc to my first faculty position. Although I am tremendously excited about this changeover, I am finding it also very daunting. This workshop allowed me to acquire some of the particulars on being a faculty member, thus giving me the proverbial 'heads up' of what is going to be expected from me and how to successfully navigate the path to acquire tenure. I would highly recommend this workshop for those who are just beginning their postdoctoral fellowship, and to those individuals who are about to enter the new and alarming arena of being an assistant professor."

—*Sultan Jenkins*, Assistant Professor, Eastern Nazarene College



## Awardees Selected for ASCB MAC Summer Visiting Professorship

The MAC is pleased to sponsor nine scientists for collaborative research with host scientists this summer. The MAC Visiting Professors Program is supported by an NIH/NIGMS/MARC grant. The program offers research support for professors at minority-serving institutions to work in the laboratories of ASCB members for 8–10 weeks during the summer.

Andrew Campbell, chair of the Visiting Professor Subcommittee, stated, “From my vantage point, I see that the Visiting Professors Program is working well and is one of the gems of the MAC and ASCB. The program is having its intended effects and is a clear benefit to the Society and participants.”

The nine 2012 Visiting Professors and their Host Scientists are:

- Visiting Scientist: *James Gallagher*, Lincoln University (1st year)  
Host Scientist: *Christopher M. Yengo*, Penn State University College of Medicine
- Visiting Scientist: *Tracie Gibson*, University of Texas of the Permian Basin (1st year)  
Host Scientist: *Steven R. Goodman*, SUNY Upstate Medical University
- Visiting Scientist: *Sabrice Guerrier*, Carleton College (1st year)  
Host Scientist: *Aaron Turkewitz*, University of Chicago
- Visiting Scientist: *Michael Lipscomb*, Howard University (1st year)  
Host Scientist: *Janis K. Burkhardt*, Children’s Hospital of Philadelphia
- Visiting Scientist: *Brenda McAdory*, Tennessee State University (1st year)  
Host Scientist: *Alex L. Kolodkin*, Johns Hopkins School of Medicine
- Visiting Scientist: *Fran Norflus*, Clayton State University (1st year)  
Host Scientist: *Claire-Anne Gutekunst*, Emory University School of Medicine
- Visiting Scientist: *Nelson Nuñez-Rodriguez*, Hostos Community College–CUNY (1st year)  
Host Scientist: *Alejandra del Carmen Alonso*, College of Staten Island–CUNY
- Visiting Scientist: *Tiffany Oliver*, Spelman College (1st year)  
Host Scientist: *Stephanie Sherman*, Emory University
- Visiting Scientist: *Teresa Shakespeare*, Fort Valley State University (2nd year)  
Host Scientist: *Sandra Murray*, University of Pittsburgh School of Medicine

Applications for the 2013 MAC Visiting Professors Program will be available on the ASCB website in January 2013.

## Participants Selected for ASCB MAC Mentoring Program

Three junior scientists were selected to participate in Cycles Two and Three of the MAC’s Mentoring Program.

The objective of this program is to assist newly independent investigators from groups underrepresented in the sciences as they write their first research grant. This program includes travel funding of \$1,000 for the mentee to visit the mentor’s institution.

Participants selected and their mentees are:

- Mentee: *Gloria Conover*, Texas A&M University  
Mentor: *David Asai*, Howard Hughes Medical Center
- Mentee: *Nancy Karuri*, Illinois Institute of Technology  
Mentor: *Caroline Kane*, University of California, Berkeley
- Mentee: *Luis Vidali*, Worcester Polytechnic Institute  
Mentor: *Brad Shuster*, New Mexico State University

The MAC thanks mentors for volunteering their time.

The ASCB MAC Mentoring Program is supported by an NIH/NIGMS/MARC grant.

## Awardees Selected for ASCB MAC Linkage Fellows Program

The MAC is pleased to announce that 14 scientists have been selected to serve as Linkage Fellows (LF) for 2012. Funding for this program is provided 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 success of the program is based on the creativity of the LF supported by the award,” shared LF Subcommittee Chair MariaElena Zavala. The Linkage Fellows Program is supported by an NIH/NIGMS/MARC grant.

The program received a record number of applications this year, and it continues to grow.

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. Alumni are also eligible to apply for MAC Travel Awards to the ASCB Annual Meeting.

The 14 scientists selected for 2012 funding are:

- *Oluwole Ariyo*, Allen University
- *Allison R. D'Costa*, Georgia Gwinnett College
- *J. Yvette Gardner*, Clayton State University
- *Triscia Hendrickson*, Morehouse College
- *Jana Jacobson*, Harris-Stowe State University
- *Lalitha Jayant*, Borough of Manhattan Community College

- *Thomas Onorato*, LaGuardia Community College—CUNY
- *Johanna Porter-Kelley*, Winston-Salem State University
- *Quincy Quick*, Southern University at New Orleans
- *Blake Riggs*, San Francisco State University
- *Nelson J. Nuñez-Rodriguez*, Hostos Community College—CUNY
- *Teresa Shakespeare*, Fort Valley State University
- *Brenda Schoffstall*, Barry University
- *Velinda Worlax*, University of North Carolina, Pembroke

Applications for the 2013 MAC Linkage Fellows Program will be available on the ASCB website in January 2013.



*Attendees in a group discussion at the two-day MAC workshop.*

## MAC Awardees Supported at Marine Biological and Friday Harbor Laboratories

Supporting participants in programs at the Marine Biological Laboratory (MBL) and Friday Harbor Laboratories (FHL) is an important aim of the ASCB MAC. The MAC works with the MBL and FHL to strengthen the training of underrepresented minorities and provide valuable networking opportunities. These opportunities often translate into future professional possibilities, including postdoctoral fellowships, career positions,

## What Some Attendees Thought about the MAC Workshop



*Patricia Silveyra*

“Participating in the ASCB Junior Faculty and Postdoctoral Fellows Career Development Workshop was a wonderful experience. As a junior faculty in my first year, attending the workshop was very helpful because it covered all the topics that an early-stage trainee has to deal with and provided me with valuable tools for developing a career as an independent investigator. The lectures were given by excellent speakers that provided us with different strategies obtained from literature, as well as personal advice. We also had the opportunity to discuss and get answers to our concerns and network with other attendees. The workshop organization and the material provided were excellent. I recommend this workshop to any member in the early steps of his/her career.”

—*Patricia Silveyra*, Research Associate, Penn State University College of Medicine

“As a postdoc transitioning to assistant professor, the ASCB/MAC Junior Faculty and Postdoc Career Development Workshop provided invaluable advice, covering every potential aspect of what is to be expected—from interviewing for a position to getting tenure while handling all of the responsibilities of a new faculty member. I was able to apply a lot of what I learned from the workshop recently to my new job. I am very appreciative to the organizers for sharing their experiences and helping future faculty prepare for successful careers.”

—*Chiyedza Small*, Postdoctoral Fellow, New York University School of Medicine



*Chiyedza Small*





Attendees, speakers, and staff at the ASCB MAC Seventh Annual Junior Faculty and Postdoctoral Fellows Career Development Workshop in San Antonio, TX.

and scientific collaborations. The MAC MBL and FHL programs are supported by an NIH/NIGMS/MARC grant.

The 10 students selected for funding in 2012 are:

#### **Marine Biological Laboratory**

- *Matthew Clark*, University of Oregon (Embryology)
- *Aleena Garner*, University of California, San Diego (Methods in Computational Neuroscience)
- *Natasha Gutierrez*, Rutgers University (Physiology)
- *Andrea Hartsock*, University of Texas at Austin (Zebrafish Development and Genetics)
- *William Munoz*, University of Texas MD Anderson Cancer Center (Embryology)
- *Lizaida Perez-Sanchez*, University of California, San Francisco (Molecular Mycology)
- *Joyce Pietti*, University of Chicago (Embryology)
- *James Saenz*, Max Planck Institute for Molecular Cell Biology and Genetics (Physiology)
- *Christopher Villalta*, University of California, San Francisco (Molecular Mycology)

#### **Friday Harbor Laboratories**

- *Henry C. Hunter IV*, University of Washington (Comparative Invertebrate Embryology) ■
- Deborah McCall*, Senior Manager, Minorities Affairs



2012 MAC members and staff, L to R: Tama Hasson, Deborah Harmon Hines, MariaElena Zavala, Michael J. Leibowitz, Wilfred Denetclaw, Jr., Sandra Murray, Andrew Campbell, Renato Aguilera, Franklin Carrero-Martinez, Michelle Juarez, David Burgess, Graciela Unguez, Deborah McCall. Not pictured: David Asai, Winston Thompson.

## Got Questions?

Labby has answers. ASCB's popular columnist will select career-related questions for publication and thoughtful response in the *ASCB Newsletter*. Confidentiality guaranteed if requested. Write us at [labby@ascb.org](mailto:labby@ascb.org). ■

# Biology Scholars in Action

The Biology Scholars Program (BSP), a National Science Foundation (NSF)–funded initiative led by the American Society for Microbiology, offers a continuum of faculty professional development on biology education scholarship. Three yearlong residencies each focus on a different stage of education scholarship: classroom assessment (Assessment Residency), science education research (Research Residency), and scholarly publishing (Transitions Residency). It is recommended that the residencies be taken in that order.

The program seeks to develop biologists' expertise in studying biology teaching and learning. The BSP has transformed our approaches to teaching. We have developed knowledge and confidence to make our instruction more student-centered, and we have gained experience in assessing student learning—especially in ways consistent with student-centered teaching.

## Fostering Student-Centered Instruction

*David Dunbar*

I am passionate about classroom-based research (i.e., student participation in science research in the classroom) and effective characteristics of this pedagogical approach. Along with Melinda Harrison, I developed and assessed a classroom-based research course, Phage Genomics, based on the Science Education Alliance initiative developed and funded by the Howard Hughes Medical Institute. This course engages students in conducting discovery science at the introductory level.

Our assessment of this course was published in *CBE—Life Sciences Education*<sup>1</sup> and shows evidence that first-year participants developed new interest in graduate education and careers in science. These students also developed better understanding of the process of science as well as how scientists practice science—outcomes that other studies of undergraduate research experiences have reported. We presented our findings at the Council on Undergraduate Research annual meeting, the American Society for Microbiology Conference on Undergraduate Education, and the Pennsylvania Academy of Science Conference. My participation in BSP's Research and Transitions Residencies armed me with the tools, know-how, and collegial network to conduct, publish, and present this work.



*David Dunbar*



*Jennifer Roecklein-Canfield*

*Jennifer Roecklein-Canfield*

As I reflect on my career in undergraduate education, I realize I had been doing little beyond relying on standard classroom exams to analyze the effectiveness of my teaching. Through the Assessment Residency, I developed the expertise to redesign the learning objectives for the biochemistry curriculum at Simmons College. The Assessment Residency's practical nature prepared me to articulate course goals, understand assessment vocabulary, design assessments to document progress toward these goals, and develop rubrics to analyze assessment data. I especially appreciated the opportunity to work on all aspects of course design in one coherent program, using assessment of student learning as a guiding principle.

## Assessing Student Learning

*David Dunbar*

Reflecting on my experiences in BSP, I recall two pivotal moments. The first came during the Research Residency, when I realized that I could connect my passion for undergraduate research with assessment tools and strategies to gauge the merits and value of research experiences for undergraduates. Through the Research Residency, I developed the confidence and knowledge to assess undergraduate research experiences both in and out of the classroom. The second moment occurred during discussion with group leaders at the Transitions Residency. Discussing my ideas with experienced colleagues helped me to refine my pedagogical research questions as well as my assessment strategies to address these questions more deliberately.

*Jennifer Roecklein-Canfield*

A pivotal moment came during the first day of the Assessment workshop, when Carol Hurney from James Madison University explained how to use “backwards design” to prepare a course. I had never thought about using well-defined student learning outcomes to map a course design. I had always worked “forward,” by first defining the course content and then articulating the student objectives. Seeing how easily I could develop course activities and assessments with a clear set of goals already in place was a revelation.

I have used the skills I learned through the Assessment Residency many times over the past year. I reevaluated the student learning outcomes for my institution's biochemistry track and developed several



new assessment tools to document student learning. I have used my newfound knowledge to assess the impact on our graduates of one of our new programs, Laboratory Renaissance: Research Integration across the Chemistry Curriculum, sponsored by the W. M. Keck Foundation. I first presented this work at the ASCB Annual Meeting and more recently at meetings of the American Chemical Society and the American Society for Biochemistry and Molecular Biology. My colleagues and I are preparing manuscripts describing these and other curricular innovations in the department and their impact on student learning.

Through the BSP online community, I continue to tap the professional connections I developed at the Assessment Residency. For example, members of the group recently gave me feedback on student learning goals for a newly proposed advanced course. Drawing upon my BSP experience, I improved the assessment strategies outlined in a phase II proposal to NSF, Transforming Undergraduate Education in STEM, submitted in collaboration with colleagues at Georgetown University and the J. Craig Venter Institute. NSF funded the grant; I am confident that my experience with BSP prepared me to articulate the curricular innovations we proposed.

### Building Capacity for Teaching and Learning

*David Dunbar*

I worked with John Cordes, director of Cabrini College's Center for Teaching and Learning and an assistant professor of communication, to develop and organize Cabrini's Scholarship of Teaching and Learning group. This group consists of eight faculty from different disciplines. We meet monthly to discuss our individual projects and assessments and share constructive feedback. Several of us have already

published education research or evaluation articles and presented our pedagogical work at various conferences. Our group has the administration's full support, and we hope to expand our group soon.

*Jennifer Roecklein-Canfield*

I led the charge to develop a chemistry department-wide assessment plan, including crafting core competencies for the undergraduate chemistry major. This work informed the final report that we submitted to the American Chemical Society for our reaccreditation. I have also begun convening a new committee on assessment, the Central Integrative Assessment Committee, and am developing a new Center for Excellence in Teaching at Simmons College.

The BSP has made a huge impact on both of us, and we encourage you to apply to one of the three BSP Residencies. To learn more about the BSP as well as the scholarship of teaching and learning, please go to [www.biology scholars.org](http://www.biology scholars.org). ■

—*David Dunbar, Cabrini College, and Jennifer Roecklein-Canfield, Simmons College*

### Note

The Biology Scholars Program was developed with support from the National Science Foundation (grant no. DUE-1022542).

### Reference

<sup>1</sup>Harrison M, Dunbar D, Ratmanský L, Boyd K, Lopatto D (2011). Classroom-based science research at the introductory level: changes in career choices and attitude. *CBE Life Sci Educ* 10, 279–286. ([www.lifescied.org/content/10/3/279.full](http://www.lifescied.org/content/10/3/279.full))

## Are You Getting ASCB Pathways?

You should now be regularly receiving our monthly email update, *ASCB Pathways*—alerting you to the latest ASCB happenings and Annual Meeting updates. If you aren't seeing the e-newsletter in your inbox, please check your spam filter, and/or contact your system administrator to whitelist [\\*ascb.org](mailto:*ascb.org). ■

# News from iBioSeminars and iBioMagazine

## Coming Soon: iBiology

Keep an eye out for a new look to iBioSeminars and iBioMagazine in early 2013 when we bring these websites together under one name: iBiology. iBiology ([www.ibiology.org](http://www.ibiology.org)) will also feature an educational area, iBioEducation, that will host new content and resources for introductory and advanced biology teaching. We will announce developments in future issues of the *ASCB Newsletter*.

## Three New iBioSeminars Available

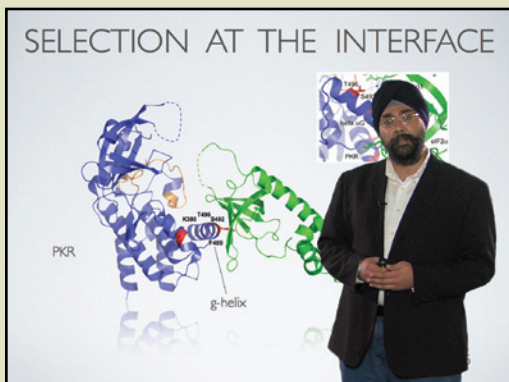
Three new iBioSeminars are available at [www.ibioseminars.org](http://www.ibioseminars.org). They cover topics in neuroscience, molecular evolution, and development.



Erich Jarvis

### Erich Jarvis, Duke University/Howard Hughes Medical Institute **Brain Pathways for Vocal Learning**

Only five groups of mammals (including humans) and three groups of birds (parrots, hummingbirds, and songbirds) are capable of vocal learning. In this iBioSeminar, Erich Jarvis discusses the neurobiology, molecular biology, and genetics of vocal learning and presents ways in which the complex trait of vocal learning may have arisen during evolution.

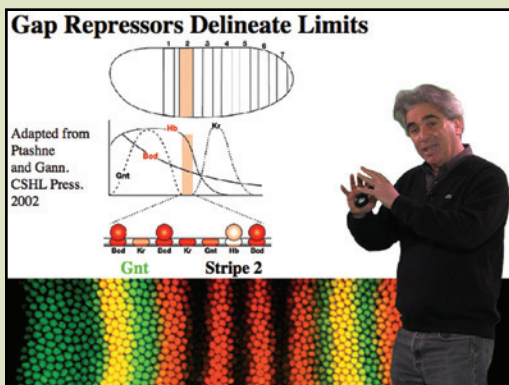


Harmit Malik

Harmit Malik, Fred Hutchison Cancer Research Center/  
Howard Hughes Medical Institute

### **Molecular Arms Races between Primate and Viral Genomes**

Harmit Malik explains that viruses and their human hosts are constantly undergoing an evolutionary arms race. In this high stakes battle, one party is always losing and thus there is always pressure on the “loser” to innovate. Through cycles of adaptation, the “winner” and “loser” are continually switched. In his iBioSeminar, Malik discusses how primate proteins and viruses have evolved over time in an ongoing competition with each other within the host.



Michael Levine

Michael Levine, University of California, Berkeley

### **Transcriptional Precision in the *Drosophila* Embryo**

Michael Levine discusses the important role of precisely regulating gene expression during animal development. Highlighting research from his lab using the model organism *Drosophila*, Levine discusses the importance of enhancers, paused polymerase, and repressors in governing the expression of specific genes, which ultimately determine the body plan of the organism. ■

—Sarah Goodwin, iBioSeminars Director

The Editorial Board of *Molecular Biology of the Cell* has highlighted the following articles from the July 2012 issues. From among the many fine articles in the journal, the Board selects for these Highlights articles that are of broad interest and significantly advance knowledge or provide new concepts or approaches that extend our understanding.

## **A role for myosin IXb, a motor–RhoGAP chimera, in epithelial wound healing and tight junction regulation**

S. K. Chandhoke and M. S. Mooseker

Myo9b is a motor–RhoGAP chimera that has been implicated in inflammatory bowel disease. Findings suggest that Myo9b is essential during both collective and individual wound-induced cell migration. It is also important for maintaining tight junction barrier integrity.

**Mol. Biol. Cell 23 (13), 2468–2480**

## **Local control of phosphatidylinositol 4-phosphate signaling in the Golgi apparatus by Vps74 and Sac1 phosphoinositide phosphatase**

C. S. Wood, C.-S. Hung, Y.-S. Huoh, C. J. Mousley, C. J. Stefan, V. Bankaitis, K. M. Ferguson, and C. G. Burd

Signaling by phosphatidylinositol 4-kinases (PI4Ks) in the Golgi apparatus controls lipid homeostasis and protein-sorting pathways. Signaling is shown to be terminated on the medial cisterna by a complex of a PI4K effector, Vps74, and Sac1, the major PtdIns4P phosphatase in the cell.

**Mol. Biol. Cell 23 (13), 2527–2536**

## **Tension-dependent nucleosome remodeling at the pericentromere in yeast**

J. S. Verdaasdonk, R. Gardner, A. D. Stephens, E. Yeh, and K. Bloom

Dynamics of histones under tension in the pericentromere depends on RSC and ISW2 chromatin remodeling. The underlying pericentromeric chromatin forms a platform that is required to maintain kinetochore structure when under spindle-based tension.

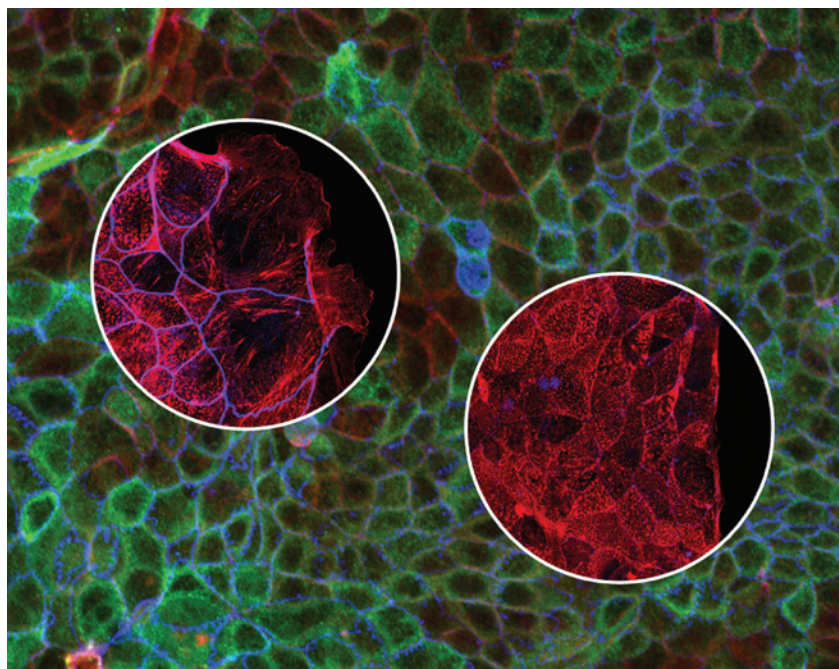
**Mol. Biol. Cell 23 (13), 2560–2570**

## **Chromatin remodeling by the SWI/SNF complex is essential for transcription mediated by the yeast cell wall integrity MAPK pathway**

A. B. Sanz, R. García, J. M. Rodríguez-Peña, S. Díez-Muñoz, C. Nombela, C. L. Peterson, and J. Arroyo

The SWI/SNF complex is a key element of the yeast CWI MAPK pathway, which mediates the chromatin remodeling necessary for an adequate transcriptional response to cell wall stress. The MAPK Sit2 mediates, through Rlm1, nucleosome rearrangements at cell wall stress-responsive genes by targeting the SWI/SNF complex.

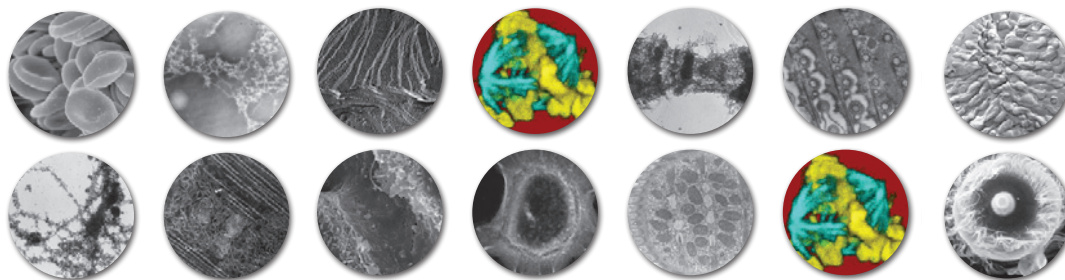
**Mol. Biol. Cell 23 (14), 2805–2817 ■**



Upon wounding, intestinal brush border-expressing Caco-2 cells (BBes) dedifferentiate and generate large lamellipodia (F-actin; red), which migrate into the wound space while retaining their tight junctions (ZO-1; blue) (left inset). Cell migration and tight junction protein localization are disrupted with Myo9b RNA interference (right inset). Such disruption compromises the abilities of epithelial sheets to recover from wounding and retain their junctional integrity. The background photo is a composite image of a region of the BBe monolayer under control conditions (Myo9b is stained green). See *Mol. Biol. Cell* 23, 2468–2480. (Image: Surjit K. Chandhoke, Department of Molecular Cellular and Developmental Biology, Yale University)



# Job Hunting? Hiring?



Find the perfect match at  
**cellbiologyjobs.org**



THE AMERICAN SOCIETY  
FOR CELL BIOLOGY  
*The science of life, the life of science*

**\*ASCB members receive a 50% discount when posting jobs.**

## Interesting Uses of The Cell: An Image Library-CCDB

The Cell: An Image Library-CCDB ([www.cellimagelibrary.org](http://www.cellimagelibrary.org)) continues to evolve. Here is a sample of recent articles that have used images from, or that mention, The Cell.

- The July 2012 issue of *Nature Methods* focused on bioimage informatics. Two articles mentioned The Cell.

The first was in the Correspondence section:

Cho BH, Cao-Berg I, Bakal JA, Murphy RF (2012). OMERO.searcher: content-based image search for microscope images. *Nat Methods* 9, 633–634. [www.nature.com/nmeth/journal/v9/n7/abs/nmeth.2086.html](http://www.nature.com/nmeth/journal/v9/n7/abs/nmeth.2086.html).

The second was in the Review section:

Eliceiri KW, Berthold MR, Goldberg IG, Ibáñez L, Manjunath BS, Martone ME, Murphy RF, Peng H, Plant AL, Roysam B, et al. (2012). Biological imaging software tools. *Nat Methods* 9, 697–710. [www.nature.com/nmeth/journal/v9/n7/full/nmeth.2084.html](http://www.nature.com/nmeth/journal/v9/n7/full/nmeth.2084.html).

- An image from The Cell appeared in the BioProcess Technical section of *BioProcess International*:

Hambor JE (2012). Bioreactor design and bioprocess controls for industrialized cell processing. *BioProcess Int* 10 (6), 22–33. [www.bioprocessintl.com/journal/2012/June/Bioreactor-Design-and-Bioprocess-Controls-for-Industrialized-Cell-Processing-331147](http://www.bioprocessintl.com/journal/2012/June/Bioreactor-Design-and-Bioprocess-Controls-for-Industrialized-Cell-Processing-331147).

- *The Scientist* recently used two images from The Cell.

The first was in the News & Opinion section:

Dunning H (June 7, 2012). Fewer mutations in tumor mitochondria: contrary to existing dogma, colon-cancer-cell mitochondria carry fewer mutations than mitochondria of normal body cells. <http://the-scientist.com/2012/06/07/fewer-mutations-in-tumor-mitochondria>.

The second was in The Nutshell section:

Dunning H (June 12, 2012). Questioning the HIV cure: sensitive tests reveal the Berlin patient believed to be cured of HIV still carries HIV RNA and antibodies. <http://the-scientist.com/2012/06/12/questioning-the-hiv-cure>.

Join us on LinkedIn for more conversation on everything microscopy related at [www.linkedin.com/groups?about=&gid=3733425](http://www.linkedin.com/groups?about=&gid=3733425). Please help us spread the word and share with your colleagues what a great resource The Cell: An Image Library-CCDB is.

Have you used The Cell in interesting ways or in an article? Are you interested in submitting images or collaborating with The Cell-CCDB? Please let us know by sending an email to David Orloff at [dorloff@ascb.org](mailto:dorloff@ascb.org). All documented usage helps support our efforts to obtain continued funding. ■

—David Orloff, Director, Image Library



# Grants & Opportunities

**A list of current grant and other opportunities can be found at [www.ascb.org/GandO.html](http://www.ascb.org/GandO.html). The following item was added since the last issue of the Newsletter:**

**Stem Cells and Alcohol-induced Tissue Injuries (R01).** The National Institute on Alcohol Abuse and Alcoholism invites grant applications to study the role of human and nonhuman stem cells in alcohol-induced tissue damage and recovery, particularly how they are influenced by alcohol metabolism and their role in alcohol-related cancers. Among the research objectives is the use of induced pluripotent stem cell technology or other cell reprogramming technologies to produce disease- and genetic population-specific stem cell lines. Expiration date: September 8, 2015. <http://grants.nih.gov/grants/guide/pa-files/PA-12-233.html>. ■

"ASCB," "The American Society for Cell Biology," "iBioSeminars," and "Molecular Biology of the Cell" are registered trademarks of The American Society for Cell Biology. "The Cell: An Image Library" is a common law trademark of The American Society for Cell Biology.

## New ASCB Members

The ASCB Council admitted 218 new members from January–May 2012.

Ishmail Abdus-Saboor	Juliane Daggett	Kameka Johnson	Yuya Ogawa	Timothy Sutton
Feroqh Ahmadi	JinXiang Dai	Ruth Johnson	Samantha OHara	Ziyi Tang
Natalie Ahn	Ankita Das	Novis Jolliff	Izumi Oinuma	Joshua Temple
Yamac Akgun	Shatarupa De	C. Kenneth Kassenbrock	Eniyou Oriero	Abraham Tesfamichael
Eunus Sheemul Ali	Remko De Pril	Dohoon Kim	Tamara Ouspenskaia	Nina Thiede-Stan
Anne Allison	Brandy-Lee Dennis	Ji Hun Kim	Andrea Page-McCaw	Alonzo Thornton
Aml Alnaas	Marianne Deroose	Ju-Hwan Kim	Isabel Palacios	Steve Throne
Aimee Ambrose	Shanal DeSilva	Stanley Kimani	Li Pan	Geng Tian
Rachel Ancar	Matthew DeSimone	Akatsuki Kimura	Amit Pandey	Michael Todd
Courtney Appell	Bakul Dhagat	Tetsuo Kobayashi	Jeff Partridge	Takayuki Uchida
Katsushi Arisaka	Nina Dudnik	Angel Ku	Gunja Pathak	Dorothee Van Breevoort
Peter Askjaer	Shauntaya Durant	Mark Langhans	Sikta Patnaik	Chloe Van Oostende
Halima Assoudani	Debapriya Dutta	Michael Lee	Bernard Peers	Benjamin Vanderschelden
Angela Bair	Dawn Eastmond	Traci Lee	Manohar Pilli	Vihās Vasu
Barbara Baird	Leah Edelstein-Keshet	Daniel Letwin	Sonia Planey	Viviana Vazquez Rivera
Bolormaa Baljinnyam	Elana Ehrlich	Jun-Yi Leu	Phillip Pohl	Anastassia Vertii
Emma Bastow	Caroline Fabre	Huiquan Li	Elena Postnikova	Catarina Vicente
Dina Beeler	Samia Farrara	Jun Li	Joy Power	Jonelle Villar
Felipe Bendezu	Kristen Farrell	Ho Lin	Andrew Pucker	Lance Villeneuve
Kathryn Bercury	Odile Fillhol	Jonathan Lin	Yanrong Qian	Chen Wang
Travis Bernardo	Tiffany Floyd	Brett Lindenbach	Himanshu Raje	Weiye Wang
Dane Berry	Mitsunori Fukuda	Trupti Lingaraj	Victoria Ramsauer	Yao-Hsien Wang
Andrew Brack	Kelly Gallagher	Bo Liu	David Richards	Carrie Watson
Robert Brown	Ralph Garippa	Jing Liu	Serendipity Rinonos	Kerry Weinberg
Elly Bruning	Andrew Gladden	Ju Liu	Nathalie Rivero	Bryan Wetterow
Brooke Buckland	Florence Gohard	Tie Liu	Jennifer Robertson	Mary Wolf
Ashley Burke	Guido Grossmann	Dhenugen Logeswaran	Randy Robinson	Lindsey Wolfe
Marguerite Buzza	Jacob Gump	Jieqiong Lou	Victoria Rohring	Steven Woodard
Sallie Cassel	Wei Guo	Jasmine Lucas	Checo Rorie	Foong Yeong
James Castracane	Reshu Gupta	Richard Lundmark	Abigail Ruiz-Rivera	Lily Yu
Craig Ceol	Sonal Gupta	Shelley MacNeil	Frederic Saltel	Changqing Zeng
Ravindra B Chalamalasetty	Kaushik Gurunathan	Maria Madon	Maricelly Santiago	Haibo Zhao
Kevin Chambers	Claire-Anne Gutekunst	Steve Mangos	Satoru Sasagawa	Zhou Zhou
Cong Chen	Rosine Haguenauer-Tsapis	Matthew Marcello	Siera Scott	Jinqiu Zhu
Pei-Wen Chen	Christopher Hauss	Randall Mazzarino	Mikael Sellin	
Hua Cheng	Madeline Haven	Kenneth Miller	Molly Server	
Seok-Yong Choi	Bjorn Henriksen	Stephen Miller	Wei Shen	
Karan Chokhani	Jonathan Higgins	Bryan Millis	Danielle Shepherd	
Chia-Fu Chou	Zonglie Hong	Rajakishore Mishra	Jamie Sheren	
Griffin Chure	Beth Hovey	Raymond Molloy	Stephanie Sherman	
Maria Cimpean	Yan Huang	Katherine Murnen	Prachi Singh	
Carol Cogswell	Carolyn Hudak	Shubhankar Nath	Michael Southall	
Janelle Colon	Larissa Ikenouye	Celso Neves	Chad Stefancin	
Janet Cooper	Andrew Irvine	Megan Nicol	Randy Strich	
Rosemary Corriero	Iman Jalilian	Justin Nussbaum	Seal Sudipta	
Elizabeth Crate	Parastoo Jangouk	Matthew O'Connell	Katsunori Sugimoto	

### Members Granted Emeritus Status

Carol Cass  
Samuel Cushman  
Ross Johnson  
Conly Rieder  
Cheng-Wen Wu



## Authorship Revision

Dear Labby,

I am in an odd situation. I have just defended my PhD thesis and am starting my postdoc. I published two papers during my graduate career, and in neither case did my advisor/lab head want to be a co-author. He has taken a variable approach to authorship throughout his (long) career, sometimes being a co-author on a student's paper and sometimes not. He makes these distinctions based on the degree to which he felt the need to steer the student. He explained to me that when a student publishes without the lab head it conveys a strong degree of independence by the student, which can be helpful in his or her career advancement. (My advisor also admits the custom is somewhat old-fashioned.)

Last week I got a surprising e-mail from him, asking me if he could be instated as an author on my two published papers. He said he is in deep grant trouble and is afraid his productivity will appear lower than it is because his name is not on my two papers. I was rather stunned but also sensed how panicked he must be to ask this. I conferred with my husband (also a cell biologist) and his immediate reaction was, "Ask Labby." What is your advice?

—Perplexed

Dear Perplexed,

Your advisor's policy of not being a co-author on some occasions is admirable and yet very rare today, as you say. (In the 1950s through 1970s at the University of Chicago the cell biologist—and ASCB co-founder—Hewson Swift was legendary for almost always allowing his students to publish alone. This custom was also quite common in the fields of phage, *Drosophila*, and later nematode genetics). Second, you are right that his request conveyed extreme anxiety and it probably wasn't easy for him to reach the decision to ask you. But there are two problems with his request.

First, such a request to the journals would need to justify his co-authorship and, more specifically, explain the change in thinking. His concern about productivity is the only honest explanation (and thus the only possible one) and it isn't clear if this would be sufficient. Second, even if the requests were approved, most journals would post an authorship revision as a Correction, making it obvious (as it should be) and raising questions in some readers' minds as to the reasoning (such authorship Corrections do not usually provide an explanation for the change). That would be something for you both to consider (if the requests were approved).

A better approach would be for your advisor to convey in his grant applications that your two papers were done with his guidance (or whatever term and magnitude of involvement is appropriate) and that by conventional standards he would have been a co-author. Suitably phrased, this explanation is likely to be positively received by the reviewers. In fact, you probably acknowledged grant support in your papers and this alone defines your work as part of the overall productivity of his lab. I hope your advisor will see the merits of this approach rather than authorship revision. ■

—Labby

*Direct your questions to [labby@ascb.org](mailto: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.*

## Labby's Fan Mail

Dear Labby,

Nice answer to the sad story from "Non-inventor to Be?" [in the May 2012 issue of the *ASCB Newsletter*]. So often, the academic concept of authorship is conflated with inventorship. The latter has specific legal criteria and, as you indicate, a failure to get it right by either listing non-inventors or failing to list inventors can be grounds for invalidating the patent. The technology transfer specialist or patent attorney at the institution likely knows this well and will act accordingly.

Love your column, it is the first thing I read when the newsletter arrives.

—Lisa M. Matovcik, Senior Patent Attorney, Critical Care, Novartis Pharmaceuticals Corporation

# MEETINGS Calendar

A complete list of upcoming meetings can be found at <http://ascb.org/othermeetings.php>. The following meeting was added since the last issue of the *Newsletter*:

**October 4–5, 2012. Cleveland, OH**

24 Hours for Huntington's Disease. Register24hrHD@gmail.com.

## ASCB Annual Meetings

**December 15–19, 2012. San Francisco**

**December 14–18, 2013. New Orleans**

**December 6–10, 2014. Philadelphia**

**December 12–16, 2015. San Diego**

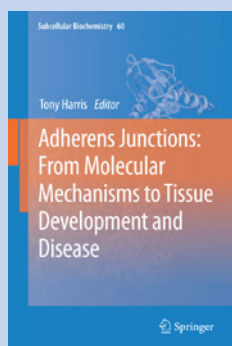
**December 3–7, 2016. San Francisco**

## Member in the News



**William Wallace**, of Georgetown Day School, an ASCB member since 1983, was one of the winners of the 2011 Presidential Awards for Excellence in Mathematics and Science Teaching.

## BOOKS by Members



**Adherens Junctions: From Molecular Mechanisms to Tissue Development and Disease**, ed. Tony Harris, published by Springer. Subcellular Biochemistry Volume 60, 2012, DOI: 10.1007/978-94-007-4186-7. <http://www.springerlink.com/content/978-94-007-4185-0>.

Are you publishing a book? If so, let ASCB know! Send the title, publisher, and ISBN information, and, if you wish, a thumbnail (300 dpi) of the cover. We'll include it in the *ASCB Newsletter*. This publicity is available only to ASCB members. Please send submissions to Thea Clarke at [tclarke@ascb.org](mailto:tclarke@ascb.org). ■

## ASCB 2012 Member Gifts

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

### Gold (\$1,000 and up)

Don Cleveland	William Saxton and Susan Strome
Anne Cress	Huntington Sheldon
Susan Gerbi	Kenneth Yamada
Helen Piwnica-Worms	

### Silver (\$500 to \$999)

Kathleen Green and Rex Chisholm  
Daniel Lew

### Bronze (\$250 to \$499)

Virginia Zakian

### Sustainer (\$1 to \$249)

Yamac Akgun	Anthony Moss
Monica Arroyo	Linda Parysek
Robert Bacallao	Elizabeth Raff
Kerry Bloom	Evelyn Ralston
Nathan Collie	Sampathkumar Rangasamy
Dorothy Croall	Emmanuel Reynaud
Alison Crowe	Norka Ruiz Bravo
Robert Douglas	Wendy Salmon
Benjamin Eaton	Jean Sanger
Farzad Ghamsari	Joseph Sanger
Lawrence Goldstein	Caroline Shamu
Rosine Haguenaue-Tsapis	Samuel Silverstein
Krisztina Hegyi	Daniel Strongin
Walter Hittelman	Gerald Sufrin
Eung-Gook Kim	Catherine Thaler
Stanley Kimani	Barbara Vertel
Stefan Kirchanski	Jim Vigoreaux
Alexander Kirov	Jean Wang
Laura Lewis-Tuffin	Thea Wilkins
Ian Macara	Roy Williams
Mark Majesky	Lindsey Wolfe
Veronica Morandi Da Silva	

\*As of June 30, 2012. Please note that both Half-Century donations and other Member Gifts have been merged into one list.

## Correction

In the Profile of Tracie M. Gibson in the July 2012 issue of the *ASCB Newsletter* (p. 17–20), the ASCB MAC Linkage Fellows Program was incorrectly described as a National Science Foundation–funded program. The program is actually funded by a Minorities Access to Research Careers (MARC) grant from the National Institute of General Medical Sciences, National Institutes of Health. ■



8120 Woodmont Avenue  
Suite 750  
Bethesda, MD 20814-2762  
USA

Non-profit  
Organization  
US Postage  
**PAID**  
York, PA  
Permit No. 356

# 2012 ANNUAL MEETING

## December 15–19, 2012

### San Francisco, CA, USA



# JOIN US IN SAN FRANCISCO!

**Submit an abstract and register early to save.**

**Now open at [www.ascb.org/meetings](http://www.ascb.org/meetings)**

- Abstract submission
- Travel/childcare award applications
- Meeting registration
- Hotel reservations
- Room-share/ride-share
- Subgroup application



**See scientific program and new meeting threads on p. 16.**