De Camilli Elected President for 2016

Haynes, Heald, Spang, Weisz to Serve on Council

Pietro De Camilli of Yale University Medical School/HHMI was elected by the ASCB membership to serve as Society President in 2017. De Camilli will serve on the Executive Committee as President-Elect in 2016 and will succeed Peter Walter as President.

Also elected to Council were J.K. Haynes, Morehouse College, who will represent faculty at small teaching colleges; Rebecca W. Heald, University of California, Berkeley; Anne Spang, University of Basel, Switzerland; and Ora A. Weisz, University of Pittsburgh School of Medicine.

Election, continued on p.6

Stem Cell Pioneer Researcher
Elaine Fuchs Wins E.B. Wilson Medal

Hailed as a pioneer in exploring the basic principles of stem cell biology, Elaine Fuchs of Rockefeller University has been named the winner of the 2015 E.B. Wilson Medal, the highest scientific honor awarded by the ASCB. It will be presented at the ASCB Annual Meeting in San Diego on December 15.

Writing to nominate Fuchs for the Wilson medal, Amy Wagers of Harvard University declared, “Over the past 30 years, Dr. Fuchs has performed ground-breaking work that has led a revolution in our understanding of the biology of mammalian skin and revealed broad paradigms that regulate tissue regenerative stem cells across organ systems.”

A 1972 graduate of the University of Illinois, Fuchs earned her doctorate at Princeton in 1977, but her research career took off during her postdoctoral fellowship in the University of Chicago (UChicago) laboratory of Howard Green, who opened the modern field of skin cell biology by developing methods of culturing whole tissue. While in the Green lab, Fuchs was the first to biochemically characterize keratin and then identify and clone the keratin genes and their promoters. She moved to her own lab at UChicago in 1980 and was first named a Howard Hughes Medical Institute investigator there in 1993. Moving back and forth from mouse models to human culture, the Fuchs lab was able to identify the keratin gene mutations responsible for five different human skin diseases, including epidermolysis bullosa simplex.
2nd Annual MBoC Special Issue on Quantitative Cell Biology
(with expanded focus on Big Data)

Issue Co-Editors: Charles Boone, Jennifer Lippincott-Schwartz, and Julie Theriot

Submit by June 15 • Release Date: November 2015

ASCB and Molecular Biology of the Cell (MBoC) recognize the profound influence that concepts and technologies from the physical and computational sciences are having on cell biology. The 2014 MBoC Special Issue on Quantitative Biology was an unprecedented success with leading researchers in the field contributing 17 research articles and 14 Perspectives.

We invite you to submit your best research articles, including methods papers, in these areas for the second MBoC Special Issue on Quantitative Cell Biology:

- Big Data methods and applications
- Quantitative imaging
- Superresolution imaging techniques and their applications
- Biophysical properties of cells and cell structures
- Computational and mathematical modeling
- Systems studies of cell signaling and complex physiological processes
- Innovative physical or computational approaches to cell biological problems

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14 days acceptance to publication

*median numbers
Executive Director’s Column

What Happens to Journal Impact Factor Rankings When You Drop a Specious Decimal Place? DORA Pops a Birthday Balloon by Stefano Bertuzzi

Two years ago, on May 16, 2013, a group of publishers, editors, heads of research institutions, and concerned scientists published the San Francisco Declaration on Research Assessment, or DORA for short (www.ascb.org/dora), which asks all involved stakeholders to stop using and misusing the journal impact factor (JIF). ASCB was present at the onset of this initiative; indeed, the group that became the DORA coalition first convened to discuss the thorny issue at the 2012 ASCB Annual Meeting in San Francisco. The declaration in May 2013 was the result of months of careful discussion and drafting, but it still bears the stamp of its origins—it is the San Francisco DORA.

Two years provides a long enough perspective to see what we have accomplished (if anything) but not long enough to encourage anyone to take a comfortable seat on our laurels. For truth be known, DORA has accomplished a lot but that accomplishment only underscores how much more there is yet to do.

The JIF as a Destructive Force

Let’s look back first. Things were simmering in the pot before December 2012, but it was in San Francisco that a group of scientists met and realized that they didn’t need to succumb to the JIF tyranny. From that moment, we’ve grown from a dozen “insurgents” to over 12,000 individuals signers and almost 600 scientific and scholarly organizations from all around the world that have institutionally subscribed to DORA. This is nothing to sneeze at.

First of all, this great shout from scientists, scholars, and their societies around the world made the JIF slightly disreputable. Before DORA, criticism of the JIF was dismissed as whining by insignificant journals. Now the JIF is seen as an out-of-control commercial gimmick that has become a destructive force in world science, affecting hiring, promotion, and funding.

DORA received significant attention in hundreds of articles, editorials, press releases, and many, many Google pages. Today any commentator on research assessment, even the JIF’s most dogged proponents, must pay attention to the principles behind DORA. In reality, DORA has helped to gel the community around a problem long known to thoughtful scientists—JIF scores are not valid measures of scientific value. Before DORA, scientists with such qualms perhaps felt powerless. As Alexis de Tocqueville wrote in his Democracy in America, individual freedom is powerless if individuals cannot form opinion groups and associations to push forward a common cause. I feel that, in our field, DORA has empowered many scientists to speak up and put forward reasons why it makes no sense to continue using the JIF to evaluate single scientific articles, let alone individual researchers.

An Ongoing Effort

From the beginning, DORA sought to become more than a one-off protest. Several institutions have gone JIF-less in their day-to-day assessment processes. Two excellent examples come from the Department of Cell Biology at the University of Texas Southwestern Medical Center and the Gulbenkian Institute in Portugal, both of which have ruled out the use of JIFs in their recruitment efforts. At EMBO, Long-Term Fellowship applicants are told that JIFs will not be used. The ASCB does...
not use the JIF in evaluating nominations for any Society award, including our prestigious Kaluza Prize for excellence in graduate student research. We will not permit advertisements that trumpet JIFs in any of our publications, nor will we allow such use in promotional materials that ASCB distributes on behalf of exhibitors or supporters at our Annual Meeting.

There are more examples to be cited of growing resistance to JIF. I am convinced that we are making headway. In time, the JIF will be considered so tacky and distasteful that scientists will become embarrassed to mention the name!

What lies ahead and what still needs to be accomplished? It is daunting. Over the past few decades, the JIF has become deeply rooted in scientific culture. Changing a worldwide culture is not easy, not quick. We are under no delusion that in two years DORA has reversed the long-term damage. However, I am confident that DORA represents a call for cultural and behavioral change aimed at the right objectives.

I am confident that DORA will succeed. Remember the fight for the National Institutes of Health public access policy for scholarly literature? Remember the doomsayers who said that it would destroy publishers? Remember those who cried that if the public had free access to the research they supported with their taxes, then the great publishing houses and tiny society presses would blow away in a matter of years? Today even the staunchest adversaries of public access and open access are starting their open access journals. Beyond the JIF culture, there is a deeper scientific culture based on rigorous evaluation. Those who support the JIF cannot fight forever because this branding gimmick stands in the way. In time the free flow of ideas and the close examination of results will sweep the JIF away.

A False Sense of Precision

Our main job is still to convince the global scientific community that we are all victims of a colossal misunderstanding. The JIF was developed as a tool to help librarians make journal subscription decisions. It was intended as a journal level metric, not an article level metric. And this is key, because the citation distribution is heavily skewed, with about 20% of articles accounting for 80% of the citations. This is true for pretty much every journal, large or small, famous or obscure. Then why not at least use medians instead of means? That would be more appropriate in the presence of a heavily skewed distribution and significant outliers. The result would be to compress the indicator for journals and bin most journals into similar buckets. The apparent differences among journals would begin to diminish, and the true futility of using the JIF in assessing research results would soon be exposed.

Second, we need to stop misusing the JIF as a metric for evaluating an individual’s science or specific science advances. The JIF comes calculated out to three decimal points, conveying a false sense of precision. The figure on p. 5 shows a simple analysis I have conducted looking at what would happen if we prune this holy metric of some of its decimal places. As you can see (pay attention to the y-axis scale), the vast majority of journals quickly fall into the same bracket and here too the apparent differences among journals are much diminished.
Of course scientists know this from the beginning of their careers. Different journals serve different purposes. Like any other form of communication, scientific communication needs to match content to its best audience. Pretending that a ranking based on a third decimal point says anything significant about a journal is self-delusion. Exaggerating small differences to fit one (misleading and misused) metric seems a perfect definition of nonsense.

And this brings me to the mischief that the JIF has caused in the scientific community. The funding crunch, coupled with the unprecedented supply and demand imbalance in the scientific workforce, has encouraged even greater misuse of the JIF as scientists come to believe that their only salvation is to publish in the handful of high-JIF journals. To do otherwise, they fear, is to risk a job, a promotion, or a grant. Working the impact factor ladder also clogs up the peer review process and delays the publication of likely important results.

At two years of age, DORA has much to accomplish at the cultural change level and at the metric level by encouraging the development and use of more diverse and more individually oriented assessment systems. But I am optimistic. Important funding agencies have already taken note of what DORA has to say and implemented changes that we hope will be beneficial.

So what can you do? First stay tuned for DORA news and for DORA activity in your field or institution. Bookmark the DORA page (www.ascb.org/dora). Follow and use the DORA Twitter handle, @DORAssessment. Most of all engage in the conversation about research assessment with your colleagues and students. And let us know your thoughts. Here at ASCB, we are proud of our role in getting DORA to age two. To get DORA to age five requires more energy, more ideas, and more input from ASCB members and all of our friends and allies.

Questions and comments are welcome and should be sent to sbertuzzi@ascb.org

Each member of Council will serve a three-year term beginning January 1, 2016. The ASCB thanks Don Cleveland and the Nominating Committee for its service and all the nominees for their willingness to serve the Society.

Of the ASCB eligible voting membership, 38% participated in the election this year, up 15% from last year. —Thea Clarke

Did You Know…?

**ASCB Offers You Visibility**

ASCB provides you with international visibility for your career and your science. As an ASCB member you can…

- Publish your science in *Molecular Biology of the Cell* at a 20% discount on page charges
- Publish for free in *CBE—Life Sciences Education*, the leading scholarly publication for life science education research and evidence-based practices
- Network, collaborate, and contact your peers year round using our members’ only online directory
- Network, collaborate, and participate in science discussion tables and elevate your work by learning from direct interaction with leaders in the field and presenting your science at the ASCB Annual Meeting
- Apply for awards. The Kaluza Prizes honor excellence in graduate student research. The winners receive $1,000 to $5,000 cash prizes, travel awards, speaking opportunities—and best of all—visibility in the field (see p. 11). The Merton Bernfield Award (for graduate students and postdocs) and the Norton Gilula Award (for undergrads and grad students) provide expense-paid trips for the winners to attend the Annual Meeting (see p. 29).
- Get involved in science communications, career planning, outreach, public policy, and protecting the interests of the next generation of scientists through ASCB's committee for postdocs and grad students, called COMPASS
- Obtain financial support to organize one-day local meetings and gain visibility as an organizer and a future leader

For more information on the opportunities and resources for visibility and networking available to ASCB members, go to [http://ascb.org/did-you-know](http://ascb.org/did-you-know).
E.B. Wilson, continued from p.1

From her foundational work in skin biology, Fuchs tackled the question of asymmetric cell division by which stem cells divide into two daughter cells with different cell fates, one daughter to continue down the path of differentiation into specialized skin cells while the other daughter returns to its pluripotent state. This was the first demonstration in adult stem cells that the asymmetric mechanism was absolutely required for all stem cells to retain their pluripotent “stemness.”

Fuchs moved to Rockefeller in 2002 where she is now the Rebecca C. Lancefield Professor of Mammalian Cell Biology and Development. Her lab there identified the key regulators of the differentiation pathway through which epithelial stem cells become hair follicles, skin epidermis, and sweat glands. The researchers broke down the signaling pathway into its distinct transcription factors and its epigenetic modifiers, including microRNAs. Fuchs made the connection between frequently activated stem cells in the epidermis and skin cancer, becoming one of the first to characterize a cancer stem cell and tracing its role in the origins of squamous cell carcinoma, one of the world’s most common and deadliest human cancers. Her basic cell research has already had wide impact in clinical approaches to cancer, genetic skin disorders, and even possible treatments for hair loss.

A longtime ASCB member, Fuchs gave the prestigious Keith Porter Lecture at the Annual Meeting in 1996, served as ASCB President in 2001, and was the opening keynote speaker at the New Orleans meeting in 2013. Her many honors and awards include election, at 45, to the National Academy of Sciences, the National Medal of Science awarded by President Obama in 2009, and the Albany Prize in Medicine and Biomedical Research in 2011.

“More than anyone else, Dr. Fuchs has brought a deep molecular understanding to the biology of skin and connected the understanding to explain many dermatological diseases,” wrote Marc Kirschner, founder and chair of the Systems Biology Department at Harvard Medical School. “She has made skin perhaps the best model for adult stem cell research beyond plants to general questions in cancer and in development. The direct clinical relevance of her research is considerable.”

When stem cell biology first emerged as a field in the early 2000s, the blood-making hematopoietic system was the main model, according to Margaret (Peggy) A. Goodell at the Baylor College of Medicine. It was Fuchs who turned stem cell investigators in a new direction. “Elaine’s work on skin regeneration for the prior decades set the stage for multiple advances,” wrote Goodell. “Her work over the past ~10 years…has transformed our understanding of skin stem cells and also influenced views and approaches in the broader stem cell field.”

The ASCB’s E.B. Wilson Medal honors America’s first modern cell biologist and the author of the 1896 book The Cell, which remained the standard biology text for nearly 40 years. Wilson was one of the first to realize that the XX/XY chromosome match determines sex in humans.

The ASCB congratulates Fuchs and thanks the E.B. Wilson Nominating Committee.

—John Fleischman

MBoC Offers New Brief Report Format

Molecular Biology of the Cell (MBoC) has introduced a new Brief Report format to give authors another option in how they present their research. Brief Reports are short articles on findings that represent a conceptual advance for the field or that enable or stimulate progress in the field. MBoC Editor-in-Chief David Drubin announced the change after consulting with members of the journal’s Editorial Board.

“This is a format for publishing work that represents an important advance that can be communicated in a pithy piece,” explained Drubin. “Readers will benefit by seeing important findings sooner than they might appear as part of a longer article. We also plan to streamline the review process by asking Monitoring Editors to make decisions about revised manuscripts without sending them back to the reviewers.”

Unlike Articles, which are intended to present a more complete story and have no limits on length or number of tables and figures, Brief Reports will be limited to 20,000 characters (exclusive of Materials and Methods and References), five display items (tables or figures) in the text, and four display items in supplementary material. The new format will also require a combined Results and Discussion section.

Visit www.mbcpapers.org to submit a Brief Report or Article to MBoC.

—W. Mark Leader
What does every cell biologist need for a long successful career? Before you answer “funding,” “tenure,” or “a cover story in Science,” think again. Because before you can even think about getting any of those things, you have to live in a society that values what you do, trusts your results, and backs up that value and trust with support for public funding of research and education.

When asked about the trustworthiness of different professions, Americans tend to rate scientists quite high. But polls also show that when it comes to specific issues, significant portions of the American people reject the scientific consensus, even when the evidence is overwhelming. Climate change. Vaccine safety. And the granddaddy of them all, and the one that most drives biologists crazy: evolution.

Why People Reject Evolution
In poll after poll, decade after decade, about one-third of Americans agree with some variant of the statement, “Humans have existed in their present form since the beginning.” Among evangelical Christians, who comprise 26% of the U.S. population, the fraction that rejects evolution rises to 64%.

Where does this rejection of evolution, for which the scientific evidence is genuinely overwhelming, come from, and why does it persist? The first part of the answer is, it’s not about science. Most people who reject evolution do so for religious reasons. Whether they feel that evolution contradicts the account of creation in the Bible, or that evolution leads to an amoral dog-eats-dog world, or that learning about evolution will turn their children away from their faith, the bottom line is that for many millions of people, the choice is black and white: You can believe either in God or in evolution, but not both; they are mutually incompatible.

At this point, a lot of scientists start pointing fingers, and those fingers tend to point straight at high school biology teachers. Surely it’s their job to explain evolution to students so convincingly that this problem would go away in a single generation! There are two problems with this. The first is, remember, it’s not about the science. You can explain the science until you’re blue in the face, but if your audience believes it has to choose between believing you and believing in God and agreeing with all of their neighbors, well guess what, you’re going to lose. And teachers are in the same boat. Even those who teach the science well may not convince all of their students. The second problem is that a lot of high school teachers are either not teaching evolution at all or are actively teaching creationism.

What’s Going on in Schools?
A recent survey of high school biology teachers by Berkman and Plutzer found that approximately one in eight (13%) personally rejects evolution and teaches creationism as a valid, scientific alternative to evolution. There are 52,697 high school biology teachers in the United States and 16.5 million high school students. When you do the math, it is sobering: Approximately 6,000 teachers are teaching creationism to over 500,000 students per year. This is, of course, bad news. (Although one might note that compared with the general population, biology teachers are much less likely to be creationists—33% vs. 13%. I guess that’s good news, right?) For many students, high school biology is the last opportunity to glimpse the “grandeur in this view of life” that is evolution, or to realize how important evolution is in practical terms. Not having learned differently, they will see no reason to challenge such teaching when their own children reach high school. And so we risk having the numbers remain stubbornly stuck.

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I believe, though, that there is reason for optimism. First of all, let’s take a moment for a shout out to the 28% of biology teachers who “consistently implement the major recommendations and conclusions of the National Research Council” on the teaching of evolution. Well over one million students are learning the right stuff every year.

And now let’s turn to the rest of the teachers—the ones that Berkman and Plutzer call “the cautious 60%.” The reasons for their caution about teaching evolution and the strategies they employ to avoid controversy are varied, but in many cases these teachers simply do not feel confident in their ability to teach evolution, especially if they teach in communities where they fear the subject will draw criticism or complaints. Lots of organizations, including the National Association of Biology Teachers and my own National Center for Science Education (NCSE) are working to identify and help these teachers. But I want to focus on what you can do, wherever you are, to help address the consequences of having so many students leave school without a firm understanding of what evolution is and why it’s so important. Note that such cautious teachers have taught millions of students over the years. So the odds are that at some point, you will run into someone who is confused or doubtful about evolution.

What You Can Do

Don’t panic. This is a situation where cell biologists can make a big difference. But not, perhaps, in the way you think. Not by being all science-y and super-smart and awesome at arguing. No. That won’t work. Let me say it again. That won’t work. Because, remember, it’s not about the science. So what can you do?

First of all, you must be willing to engage, respectfully, with people who have doubts about evolution. Chances are most of you won’t find these people in your laboratories or college classes. (Although some of you will. If you want to read about a real hero on that score, see the article “Defending Evolution” by James Krupa, who teaches introductory biology at the University of Kentucky.) You may encounter doubters among your children’s parents, at your house of worship, in your PTA. Or around the Thanksgiving table when the whole extended family gathers.

So here’s how you do it:

Be curious. Ask questions. Listen to the answers. “What is it about evolution that bothers you?” “What did you learn about evolution in school?” “Does your church take a stand on evolution?”

Answers are likely to fall into two general categories. First, to those with religious doubts, you might point out that many Christian churches are fully accepting of evolution, including the Catholic Church and most main-line Protestant churches. (For a full list, go to “Voices for Evolution” at the NCSE website, http://ncse.com.) You could also say that many prominent scientists are Christians, even evangelicals, like Frances Collins, the current director of the National Institutes of Health. If you are a Christian yourself, by all means talk about why you don’t see a conflict. The goal is simply to introduce the idea that evolution and religious faith do not have to be at odds with each other.

Some people genuinely think that evolution is controversial scientifically. That is one way that the cautious 60% of biology teachers present the topic—as if some scientists accept it, but others don’t. Try to resist the temptation to enter into full “honey, sit right down and listen to me about all the evidence for evolution” mode. And above all, don’t let yourself be drawn into a debate. It’s hard, I know. But far more effective will be to say something like: “Well, I (and every other biologist and doctor I know) apply evolutionary principles every day. You really can’t do biology without it.” Then stop. Wait for questions. Listen. Answer with more questions of your own. For example, you might ask what the person thinks about antibiotic resistance, or dog breeding, or cancer, and talk about how evolution helps us understand all of those things.

Be respectful. Remember the statistics about how evolution is (or isn’t) taught in most high schools? High school biology might be the last and only time someone heard anything about
evolution. People who doubt it or reject it are not stupid, just poorly informed or actively mistaught. If they’re willing to talk to you about it, you have an opportunity to introduce another point of view. If you’re dismissive or patronizing, that door will slam shut.

**Be personal.** Many people have never met a scientist. They may be intimidated by scientists or have bad memories about their own science education. Go ahead and tell them why you became a scientist, what you love about it, why you think your work is important, and how you hope it might make the world a better place.

**Be patient.** Really, really patient. Don’t expect to change a person’s mind in one conversation. Re-define victory as planting a seed, cracking open a door. As my predecessor at NCSE, Genie Scott, used to say: “first you have to get their fingers out of their ears.” You don’t have to win. You just have to introduce another point of view.

If you follow these four strategies, you’ll have a lot of success with most doubters. Now, you may run into some truly committed creationists. They will come armed with all sorts of arguments about the shakiness of the fossil record, the impossibility of “macro-evolution,” or the purported role of evolution in Nazi atrocities (really). My advice is to back away slowly, unless you really love that kind of debate and are willing to spend a lot of time researching creationist arguments and how to refute them. (The website http://talkorigins.org is invaluable if that’s your cup of tea.) For these “true believers,” their entire identity is tied up in rejecting evolution and no amount of discussion will change their minds. The best you can do is respectfully disagree. Now, if this person is your child’s biology teacher, or running for the school board, it’s time to call in the experts. At NCSE, we have decades of experience helping local communities defend the teaching of evolution in public schools, and blocking efforts to introduce creationism in any form. We’ll be happy to help with deniers. But we can’t talk to every single doubter.

I can’t help but think that if more people could meet a scientist personally and get a sense of how passionate and committed scientists are to improving health, protecting the environment, growing healthy food, or developing sustainable forms of energy, it would be much harder for politically or ideologically motivated attacks on science to succeed. And survey results on acceptance of evolution would finally start to improve.

And that’s why I hope you’ll make the effort. Let me know how it goes.

—Ann Reid, National Center for Science Education

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References and Footnotes


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Volunteer to Review CVs

We are always looking for volunteers, including ASCB members in academia and industry, to help review cover letters, CVs, and resumes of young ASCB scientists. We will match you, and will only ask you to review two or three times a year. If you can help, please contact Thea Clarke at tclarke@ascb.org.
Win $5000, $3000, or $1000 for excellence in graduate research

Win one of three cash prizes, travel awards to ASCB 2015, and speaking opportunities at the meeting
Only ASCB members eligible (membership starts at $42)
Join now at ascb.org

Applications open June 10-July 31
www.ascb.org/Kaluza.cfm
After a Long Deep Freeze, the NIH Budget Might Be in Bloom Again on Capitol Hill

There is a certain smell in the air on Capitol Hill these days. While spring break tourists might credit the tulips and cherry blossoms that are in bloom all over the grounds of the Capitol, science policy advocates are sniffing the sweet smell of renewed support for the U.S. National Institutes of Health (NIH). Or is it just the usual public relations perfume associated with politicians who want to make constituents happy?

After years of flat funding for the NIH and flatter congressional interest in doing anything about it, the first whiffs of something different were detected wafting through Congress almost as soon as both chambers came back into session this winter. Serious legislation was introduced in both the House of Representatives and Senate that would make significant changes to the accounting used to establish the NIH budget each year. Other legislation would make major changes to the sources of funding for the NIH. In ASCB’s view, not all these bills are good but at least Congress is trying.

Moreover, members of Congress charged with overseeing the NIH budget have been more vocal in their support for the NIH. At a critical hearing on the NIH budget, new subcommittee chair Rep. Tom Cole (R-OK) said he has developed a new appreciation for the work of the NIH. Subcommittee member Rep. Chuck Fleischman (R-TN) went even further, telling NIH Director Francis Collins that he was “in awe” of the NIH. “I am grateful for the NIH,” Fleischman continued.

Finally, several members of Congress who normally oppose “big government” and increased deficits have been speaking out in support of significant, long-term increases for the NIH budget. In a recent interview with the Huffington Post (http://huff.to/1INj0X9), former House Republican Eric Cantor called for his former colleagues in the House to provide the NIH with significant budget increases without worrying about how to pay for it. (Normally, increases in one program have to be offset with cuts to another program.)

In the interview, Cantor said, “My position would be, let’s go ahead and commit to long-term creation of value, let’s go in and put all the incremental dollars on the domestic side into scientific and medical research.” Cantor admitted, that when it comes to funding biomedical research in tight fiscal times, “The hang-up has always been on my side of the aisle.”

This is not just the view of a former member of Congress who doesn’t have to worry about the next election. Rep. Kevin Yoder (R-KS) recently called for another doubling of the NIH budget to $60 billion without making matching cuts at other places in the budget.

Rep. Yoder told the Huffington Post, “Honestly, I’m not a big fan of deficit spending. I’m not a big fan of deficits. Certainly, as a conservative Republican, I believe the fiscal health of our nation is one of the most critical issues long term. But I think I can go to my 16-month-old daughter and I can say, ‘I borrowed money in your name to cure cancer’ and she would thank me.”

—Kevin M. Wilson
Did the House Science Committee Reform or Handcuff the NSF? Your Perception Is Your Reality

Earlier this year, the Internet went crazy over the color of a dress posted on the Web. Was the dress white and gold or blue and black? It looked white and gold to many, but the real color of the dress was said to be blue and black.

A legislative version of The Dress appeared this week when the U.S. House of Representatives' Committee on Science, Space, and Technology met to amend and approve the America COMPETES Reauthorization Act of 2015. (This process is called a “markup” on the Hill because the bill is actually marked up as last-minute changes are made by the committee.) America COMPETES is legislation that makes programmatic changes to the operations of the National Science Foundation (NSF); federal science, technology, engineering and mathematics programs; the White House Office of Science and Technology Policy; the National Institute of Standards and Technology; and several divisions of the Department of Energy.

The Republican majority on the committee, which wrote the bill, had nothing but praise for the bill and its impact on American science. In press releases and during the markup, committee leadership referred to the bill as “pro-science” and said that it would “reestablish the federal government’s primary role to fund basic research.”

The Democrats on the committee had trouble finding anything good to say about the bill. They called it a “combination of two bad bills” and said that, unlike previous efforts, the contents of the bill were not shared with Democrats on the committee until the last minute. In one of her most stinging comments, Rep. Eddie Bernice Johnson (D-TX), the senior Democrat on the committee, said that the bill “is preoccupied with questioning the motives of the National Science Foundation and the integrity of the scientists it funds.”

The bill is the most recent product of a committee that has focused a great deal of attention in the last few years on the way the NSF awards grants. Over the last year, science committee staff have visited NSF headquarters to review peer reviewer notes on awarded grants and have selected over 70 grants for close scrutiny.

If the House bill were to become law, it would establish a new awards process at the NSF. Each successful NSF grant would have to be consistent with the NSF mission, be worthy of federal funding, and have the potential to achieve:

- Increased economic competitiveness in the United States;
- Advancement of the health and welfare of the American public;
- Development of a globally competitive American STEM workforce;
- Increased public scientific literacy and public engagement with science and technology in the United States;
- Increased partnerships between academia and industry;
- Support for the national defense of the United States; or
- Promotion of the progress of science in the United States.

The House bill also requires that the NSF ensure that funded researchers are not receiving funding from any other federal agency. Grantees would have to submit a list of all federal research funding they have ever received or are requesting. In addition, researchers would have to validate that any unpublished data submitted with the grant application did not include knowingly misrepresented data. Finally, NSF-funded investigators would have to be provided with sufficient resources to conduct the research described in the grant.

Apparently your opinion about the color of the striped dress is based on how your brain perceives the actual color. The actual color of the dress is, ultimately, unarguable. However, the impact of the America COMPETES Reauthorization Act on American science will be left up to your own perceptions—and ultimately to history.

—Kevin M. Wilson
Attendees of the 2015 National Postdoctoral Association (NPA) meeting at the University of Maryland in Baltimore noted something different compared with past meetings: an overwhelming number of postdocs attended. This might sound like what you’d expect for a postdoc conference. However, aside from postdocs, many stakeholders in the postdoctoral experience (such as university administrators and postdoctoral officers) traditionally attend, and with the recent increase in national discussions on postdoctoral affairs (such as the paper by Alberts et al.), postdocs themselves are increasingly interested in entering the conversation. Nearly 400 attended, and 230, including myself, were there for the first time—both record-breaking numbers.

The Keynote: Rosina Bierbaum
Rosina Bierbaum, member of the President’s Council of Advisors on Science and Technology, discussed her time with the Clinton and Bush administrations doing science policy work relating to climate issues at the time when the United States withdrew from the Kyoto agreement. What was most striking about her speech was the parallel that you could draw between the discussions of impending crises in the climate and in the biomedical research system. The strategy involved in being an advocate for a policy position, compared to what we are trained to do as scientists, was particularly interesting, and it was a fascinating talk about the role of scientists in policy decisions.

Networking and Social Events
All work and no play…sounds like a postdoc job description. So there was time to meet with others and network. This included a small ASCB COMPASS meetup!

We actually met incidentally through one of the lunchtime networking sessions, a forum for discussion on diversity in the research system. There were also other networking groups, including the Career Connections lunch, where postdocs could meet with representatives from companies to discuss career opportunities.

The meeting provided an opportunity for postdocs from diverse fields to network with other scientists interested in the postdoc problem. This was imperative, as many attendees were postdoctoral officers or representatives of postdoctoral associations (PDAs). There were significant opportunities to network and many people to talk to. In a crowd like this, once you start talking, it’s hard to stop.

Innovation in Action: The Future of Research
I was part of a workshop in the “Innovation in Action” series, which aimed to provide tools for participants to begin their own advocacy work. Jessica Polka and Kristin Krukenberg, both postdocs from Harvard Medical School, and Kearney Gunsalus and myself from Tufts all moderated discussions on the following topics stemming from the recent Future of Research symposium:

- Postdocs are poorly connected with one another and other researchers. How can this be improved?
- Postdocs need information on career
outcomes when looking at institutions at which to train. What data should be collected, and how?

We hope that the process of doing science could be made more open and efficient. What aspects of science are wasteful and how can we fix them?

We hope that mentoring can be improved and incentivized. How can training be evaluated, and this information used and disseminated?

We'll soon be releasing the data from the brainstorming session.

**Poster Session**

I presented a poster on the work we have been doing in Boston on the Future of Research and about upcoming meetings at New York University in May, the Bay Area/San Francisco in July, Chicago in September, and Boston at the end of the year. There were many excellent posters on what people are doing at all of their institutions—get in touch with your postdoc representatives and check out if he or she presented something and hear about your representative’s experiences at the meeting.

**Key Issues for Discussion and Further Action**

The most-discussed issue was the lack of data and transparency about postdocs in everything from numbers to career outcomes. Even the number of postdocs in the United States is unknown (my guess is firmly at the 100,000 mark), and one of the major barriers to advocating change is the scarcity of numbers about the movement of graduate students and postdocs through the research system, and where they ultimately end up. These data are sorely needed, not least because of established assumptions that “no data” means “no problem.” Jessica Polka, Kristin Krukenberg, and I have made a call for greater transparency in training outcomes in a Perspective in the ASCB’s own
One collection of data is coming soon from the University of California, San Francisco, and new surveys are in the works. If there is a survey being carried out at your institution, please fill it out. We all know the importance of data in our own research, and this work has the ability to have an impact on a system that is currently not to our advantage.

These data have many uses not only in advocating change to relieve the postdoc crisis, but also in educating graduate and undergraduate students and raising career awareness. The default path for “science” has become undergrad to grad school to postdoc. Not only does this do nothing to relieve the so-called “STEM shortage” because it fails to direct people into any scientific career other than academia, it allows the maintenance of a large workforce of expendable and cheap labor. My personal opinion is that we shouldn’t dissuade anyone from wanting to go into academia, but we should certainly make everyone aware of what they’re getting into.

...[O]ne of the major barriers to advocating change is the scarcity of numbers about the movement of graduate students and postdocs through the research system, and where they ultimately end up.

But educating our junior colleagues and mentees isn’t enough because what will happen is that we will also reduce diversity in the workforce by dissuading members of underrepresented groups from persevering. Gibbs et al. showed that attitudes to careers in biomedical research actually differ by race/ethnicity and gender. We need to figure out how to create a diverse workforce at the faculty level. There needs to be an attractive academic culture for those who already face challenges from discrimination, both explicit and implicit. Data from a recent survey on LGBQ populations demonstrate that those academics that are open about their sexuality are less comfortable in the academic system. Simply promoting more diversity among trainees will not be enough. There also needs to be a serious discussion about the inherent biases in the faculty appointment process and how issues in diversity can be addressed.

Many postdocs at the conference, including myself, are what I’d call “academic realists”: postdocs still trying to carry on in the academic system, but who now know too well that we must also be pursuing other careers. A key problem in achieving change for postdocs is
the rate of turnover of postdocs, and the lack of continuity. It is through the establishment of greater communities that change is most likely to occur.

Join the Work of the NPA
You should consider becoming an individual member of the NPA. If you are at a sponsoring institution, you may already have affiliate membership that allows you to access many of the materials the NPA offers. But if you sign up as an individual member, you can drive further change to the organization in a very significant way.

The NPA is one way that postdocs can get involved, at a national level, in applying pressure. The meeting has left us feeling energized and convinced of the importance of continuing to add our voices to the conversation.

—Gary McDowell, Tufts University

References


Do you have an outreach idea? Make it happen! Apply for a COMPASS Outreach Grant (ascb.org/compass-outreach-grant), get some friends together, and get going. You won’t regret it.

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 are willing to help. Just fill out a short form (www.ascb.org/cvreview), and we’ll put you in touch with a reviewer. Then the two of you can decide which digital collaboration tool to use (email, Google Docs, Skype, Wikispaces, etc.). You must be a current ASCB member to take advantage of this service.

—Thea Clarke
Challenges for the Biomedical Research Enterprise

The word “enterprise” typically invokes images of lyrical montages, stupendous victories, collaborative venturing into the unknown—thanks to history and pop culture. For such reasons, when we think of biomedical research the word enterprise does not enter our consciousness easily. It takes some floundering about, reading and reflecting, before one stumbles upon the veritable fact that in its earliest incarnation, biomedical research was very much an enterprise.

And for good reason. Before the invention of the microscope, our research into the science of life was limited to anatomical study of organisms visible to the naked eye. Some behavioral and physiological studies were performed, which despite being crude provided insight and allowed for some observations that could be built into theories. There were no precedents, no sophisticated tools, and certainly no “scientific method.” It took considerable enterprise on the part of the scientists of the day to slowly and sedulously establish the building blocks on which our discipline rests today. It involved educated risk-taking and imaginative thinking. It was usually rewarding only intellectually and was not for the faint of heart, as much drudgery was involved and failure was abundant. And it also did not always fulfill a public health need. Sometimes it was only for the advancement of human knowledge.

As we progressed through the Industrial Revolution and into the modern era, much of that changed. The instruments for scientific research improved vastly, allowing scientists to ask all sorts of questions that hitherto had been beyond human understanding. There were dire public health and national security problems that required intensive collaborative and cross-disciplinary research, and there was significant financial incentive. Indeed, the innovations that were born out of the immediate pre- and post–World War II years have significantly transformed humanity. However, today there is very little enterprise left in biomedical research.

While I have no desire to romanticize the “old ways,” for they certainly had their faults, there is one important takeaway here. Research in the not-so-recent past was free from the burden of “expected results and potential pitfalls” because those were usually unknown. It was thus conducted in an unbiased way, and often led to objective, reproducible results. Today, scientific research is liberally mired in chaos. There is very little room for research for the sake of knowledge, let alone serendipitous discoveries. We think in terms of specific aims, rather than bigger pictures. There are scattered bits of knowledge that often clash and do not come together as a cohesive whole. Compounding the problem is the fact that very few laboratories enjoy continued financial support to thoroughly investigate all aspects of their research question. Incomplete, competing, or incorrect models fill our scientific journals. Consequently, the time taken to make the next big leap in our understanding of any biological phenomenon has increased.

Several factors are to blame, not the least of which is a significant reduction in funds that is propelling everything toward “safe” research. Different people point to different factors that led up to this, but the fact remains that there is disproportionate expectation of deliverables from the allocation of funds. Projects that are incremental to the current body of knowledge and are founded in precedent of success are the ones that get funded. Therefore, these projects are likely to contribute incremental knowledge, and breakthroughs tend to be rare. Yet the expectation of breakthroughs remains. The tendency to support projects that hinge on

Aditi Dubey

[T]oday there is very little enterprise left in biomedical research.
the unknown, that are truly at the frontier and can be innovative, is very low. Grant reviewers now have to select projects with guaranteed returns. The problem is further complicated by the fact that it is considerably more difficult to choose grants that are within the top 10% than those that are within the top 30%, which used to be the cutoff until less than a decade ago. Stuck between those two constraints, the state of the biomedical research enterprise is that of suffocation, a shrinking knowledge base, and an even more mad dash for “big data” and large drug screens.

The true measure of a scientist’s creative thinking in today’s research climate is to conduct the best possible experiment with the least amount of money, rather than to conduct the best possible experiment to answer the question at hand. With this sort of a model, the priority shifts to staying afloat rather than breaking new ground. And scientists cannot be blamed for buying into the model. To continue doing any research, they have to accept the status quo. They are without breathing room and constantly out of breath. The only silver lining here may well be that this problem has become so pervasive and vast that it has seeped out of small, science-related news outlets to renowned mainstream media platforms.

Earlier this year, National Public Radio profiled several scientists who have quit their jobs in the last five years or so. Their grievances with biomedical research can be summarized into a sentence: No one wants to fund risky, cutting-edge science anymore, and even less so if there isn’t a clear connection to therapeutics. The New York Times carried a lengthy editorial about the obvious, but rejected, need to publish negative data to redirect biomedical research to its focus on innovation and enterprise, and to retain talented scientists who are being forced to exit the field. Just because research does not prove your hypothesis does not mean that it is not valuable or informative. These are only two examples out of many. The problem of restricted and constrained scientific research, and the toll it takes, has finally caught our attention.

However, the biggest problem of all in this current scenario is not that we are unaware and apathetic. The biggest problem is that we are helpless. The current state of biomedical research cannot be fixed by us, at least not directly. The roadmap for most research at universities and nonprofit institutions is laid down by the government, since this research is financed through federal funds. While it is only appropriate that taxpayer money be budgeted by the government, the officials making these decisions are not required to have a scientific background. Scientific advisors are often included in discussions, but the ultimate decision of how we invest in biomedical research as a nation is made by Congress. The state of our biomedical research enterprise directly reflects the choices and values of those we have elected. Revamping biomedical research will require changes at the very top, where our national leaders, policymakers, and budgeteers sit.

While editorials and opinions in prominent publications help in making our struggles noticeable to our lawmakers, they are not sufficient to spur action. Congress isn’t exactly full of scientists. For things to change, a two-pronged approach is necessary and requires significant involvement on our part. Since we face the direct consequences of a stifled research program, we must also take the responsibility. On one hand, we need to increase our efforts to reach government officials. This can be considered more short term, where the results of our efforts can be seen as early as the next fiscal year. On the other hand, more of us need to step up and make the transition into Congress. This is a more long-term solution that will take several years before a greater percentage of scientists can occupy seats in Congress.

For scientists, a career in politics is not a natural second choice. That’s partly because
of the traditional separation between those disciplines. Scientists and politicians have different expertise; they think and act differently. Very few scientists have been able to bridge this gap and fulfill both roles. To even contemplate it can be intimidating and seem like a significant career risk. Another major hurdle is the way we view ourselves as scientists. We view ourselves as one-dimensional entities with excellent critical and analytical capabilities that can be applied to testable ideas and research problems. Often, we do not independently realize just how transferrable those skills are, and that a scientist is not just someone who conducts scientific research. Someone who ensures continued federal support of the biomedical research enterprise is very much a scientist as well.

These ideas have prompted several professional societies to become involved in training scientists in public policy and lobbying. The American Association for the Advancement of Science, the Lasker Foundation, and ASCB are among several organizations that offer graduate students and postdocs support with transitioning into science policy positions. Most of these resources are either free or carry a modest fee. Their availability is a great asset to both scientists-in-training and established scientists because the necessary resources have already been compiled for you. The next step is for universities to dedicate some resources toward training their scientists in matters of lobbying for continued support of biomedical research. Presently, established faculty can most easily accomplish this, as they have the easiest access to the administration. Discuss the research enterprise with your mentor and get his or her views. What does your mentor think is our role to play?

Considering all of the above factors, this is a good time to begin our efforts toward changing the future of our beloved research enterprise. All you need to get started is motivation, lots of patience, and supportive colleagues. The challenge is not where to begin. The challenge is to find the will to do so, and to keep going despite failure. But research has already taught us how to do that, hasn’t it?

—Aditi Dubey, Rutgers-Robert Wood Johnson Medical School

**Scientific advisors are often included in discussions, but the ultimate decision of how we invest in biomedical research as a nation is made by Congress.**

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**ASCB Member Benefit: Publicize Your Book**

Are you publishing a book? If so, let ASCB know! Send the title, publisher, ISBN information, and 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.
Stop waiting. Start publishing.

less than

3 days decision to review*

27 days peer-review decision*

14 days acceptance to publication

*median numbers

molbiolcell.org
Symposia topics will cross disciplines, spatial scales, and systems within broad scientific question areas. All speakers will address different spatial scales.

Pushing the Limits: Visualization of Hidden Biological Processes

Eric Betzig, Janelia Farm Research Campus/HHMI
W.E. Moerner, Stanford University
Xiaowei Zhuang, Harvard University/HHMI

Wisdom of Crowds: Collective Decision-Making by Cells and Organisms

Deborah M. Gordon, Stanford University
Roberto Mayor, University College London, United Kingdom

Embraces across the Species Barrier: Complex Cell Interactions

Rachel Dutton, Harvard University
Forest Rohwer, San Diego State University
William Sullivan, University of California, Santa Cruz

Like Oil and Water: New Principles Governing Cell Organization

Tony Hyman, Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany
Michael Rosen, University of Texas Southwestern Medical Center

Bending Nature to Our Purposes: Engineering of Cells and Tissues

Kristi Anseth, University of Colorado, Boulder/HHMI
Angela M. Belcher, Koch Institute for Integrative Cancer Research, MIT
Jennifer Doudna, University of California, Berkeley/HHMI

Going the Distance: Determining Size and Spacing of Biological Structures

Rebecca Heald, University of California, Berkeley
Shigeru Kondo, Osaka University Graduate School of Frontier Biosciences, Japan

Beyond the Five Senses: Detection of Magnetic and Electric Fields

Arash Komeili, University of California, Berkeley
Alex Mogilner, New York University

Minisymposia

Co-chairs will choose cutting-edge Minisymposia topics on the basis of abstracts submitted in the following areas:

Cytoskeleton, Motility and Cell Mechanics
Membrane Organization, Dynamics, Traffic, and Regulation
Cell Cycle, Cell Division, and Cell Death
Signaling and Differentiation
Multicellular Interactions, Tissues, and Development
Cell Biology of Genetic Information
Organelles and Spatial Organization of the Cell
Applications of Cell Biology in the Real World

Education Minisymposium: Teaching How to Teach and Learn
ANNUAL MEETING Update
Annual Meeting registration is now open! Submit early and save!

The 2015 ASCB meeting overarching theme is about making connections at different scales, from the intracellular level to the tissue level, to the organism level all the way up to the macrocosmic level, all in the light of big data and information integration. This integration will help us ask the right questions and find answers to the challenging problems in medicine, living systems, and ecosystems.

Cell biology is increasingly relevant not only to those who think of themselves as cell biologists but also to more specialized researchers in neuroscience, immunology, cancer biology, synthetic biology, biophysics, molecular medicine, and more.

ASCB 2015 is also about your training, your career, and your lab. Find mentors. Find friends. Find collaborators. Find funding. Find out what’s next

Did you know there are numerous speaking opportunities at the Annual Meeting?

Over 30% of 2014 attendees who submitted an abstract by the first deadline were selected to give a talk. Overall, 26% of meeting attendees in 2014 had speaking opportunities. Submit an abstract by August 4 to be considered for a speaking spot in a:

- Minisymposium (15-minute talk with 5-minute Q&A)
- Microsymposium (posters presented electronically in 5-minute talk formats)
- Lightning Talk (5-minute talk at the end of a Minisymposium with 1-2 minute Q&A).

Want to learn hands-on how to handle big data sets?

Three workshops offering practical skills training to analyze large data sets:

1. Image analysis in quantitative microscopy
2. Sequence analysis in RNA sequencing
3. Network analysis in signal transduction

ASCB student member hotel rates start at $99, plus tax, per night!
Early Career Scientists, *Philosophical Transactions, Congress Works*

Visit ascb.org/ascbpost for more.

As Young Investigators Grow Old, Private Funders Come to Rescue

The Howard Hughes Medical Institute, the Bill & Melinda Gates Foundation, and the Simons Foundation are teaming up to provide a new funding program for early-career scientists. These philanthropies will invest $148 million in early-career scientists through five-year nonrenewable grants of up to $400,000 per year. This new funding comes at a time when the average age of investigators receiving their first National Institutes of Health (NIH)—funded independent grant has increased to 42, and the success rate of grant applications submitted to NIH has dramatically declined.

Dr. Maturin Presents His Compliments—World’s First Scientific Journal Turns 350

Outside of the wildly popular historical novels of Patrick O’Brien, Stephen Maturin, MD, fellow of the Royal Society and naturalist renowned for his discovery of the giant tortoise, *Testudo aubreii*, never existed. But in those pages, Dr. Maturin was a fervent subscriber to the *Philosophical Transactions*, the world’s first scientific journal, which in the nonfiction world turned 350 last month. In evolutionary terminology, this makes *Transactions* the MRCA, or Most Recent Common Ancestor, of the roughly 40,000 scientific journals published today.

Capitol Hill Shock as Dems and GOP Make Biomedical Sense

Behind all the Washington, DC, brouhaha that makes the news, important things do get done on Capitol Hill. On a regular basis, members of Congress work together and Congress works with groups like the ASCB. Recently real progress broke out on two knotty problems including funding support for early-career investigators. ASCB’s Kevin Wilson visits the quieter recesses of Capitol Hill and finds quiet compromises in the works.

ASCB Members receive 50% off when posting jobs at cellbiologyjobs.org
The Cell would like to thank all of its supporters as we announce that we have now had over 600,000 visits in just over four and a half years since launching the service. Thank you.

As we seek to expand our services to scientists, educators, students, and the general public we are preparing a new grant application. To that end, we need your help. If you have found The Cell to be a useful resource we would welcome all letters of support. Please send these to David Orloff at dorloff@ncmir.ucsd.edu. Support from our community will surely make a big difference in the success of our grant application.

And don’t forget, if you are applying for a grant soon and need a Data Management Plan (DMP) be sure to contact us before submitting your grant application so we can help with the DMP for your cellular images.

Don’t miss the free mobile app for iPhone and iPad, which is now available in the App Store and can be found by searching for “Cell Library.”

The Cell: An Image Library-CCDB (www.cellimagelibrary.org) is a freely accessible, easy-to-search, public repository of reviewed and annotated images, videos, and animations of cells. The Cell-CCDB was developed by ASCB under a Grand Opportunities grant from the National Institute of General Medical Sciences. It now resides at the National Center for Microscopy and Imaging Research Cell Centered Database (CCDB), which manages the Library under a perpetual license from ASCB.

—David Orloff
The Editorial Board of Molecular Biology of the Cell has highlighted the following articles from the April 2015 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.

**Cell shape impacts on the positioning of the mitotic spindle with respect to the substratum**
F. Lázaro-Diéguez, I. Ispolatov, and A. Müsch

Spindle confinement within the x-z plane occurs in cultured MDCK and HeLa cells due to incomplete cell rounding and yields nonrandom x-z spindle orientation when astral MTs are absent. On the other hand, astral MT–based rotation forces disrupt the core metaphase spindle in situations in which the metaphase plate does not clear the cortex.

*Mol. Biol. Cell* 26 (7), 1286–1295

**Mitotic entry in the presence of DNA damage is a widespread property of aneuploidy in yeast**
H. M. Blank, J. M. Sheltzer, C. M. Meehl, and A. Amon

Aneuploidy causes DNA replication defects and premature adaptation to DNA damage, with profound consequences for genome stability. Such abnormalities provide the substrate for translocations and deletions that are a hallmark of cancer.

*Mol. Biol. Cell* 26 (8), 1440–1451

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Confocal x-y (top) and x-z (bottom) sections of MDCK cells in which the mitotic spindle is confined in the x-z plane due to incomplete cell rounding. Cells were labeled for microfilaments (blue), microtubules (cyan), NuMA (green), and nuclei (yellow). The cell surface (purple) was envisioned by means of ZIBAmira software. In *Mol. Biol. Cell* 26, 1286–1295, Lázaro-Diéguez et al. report that constraints imposed by the cell cortex in flat cells drive spindles that are longer and/or wider than the cell’s height into a tilted quasi-diagonal x-z position. The authors suggest that cell rounding serves to maintain spindle integrity during its positioning. (Image: Francisco Lázaro-Diéguez, Department of Developmental and Molecular Biology, Albert Einstein College of Medicine)
### Upcoming Local Meetings

ASCB is pleased to provide funds for graduate students, postdocs, and community college instructors to organize one-day local meetings. Such meetings usually involve two or more institutions (within the United States or international), and topics can range from basic science to career development as long as there is clear relevance to the broadly defined field of cell biology.

The next deadline to apply for funds is **June 2, 2015**. Applicants must be or become members of the ASCB. For more information visit [www.ascb.org](http://www.ascb.org) and click on “Meetings.”

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<tr>
<th>Event Name</th>
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<tr>
<td><strong>Beyond the Bench Symposium</strong></td>
<td>Cold Spring Harbor Lab</td>
<td>July 18, 2015</td>
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<tr>
<td><strong>2nd Midwest Membrane Trafficking and Signaling Symposium</strong></td>
<td>University of Louisville</td>
<td>July 24, 2015</td>
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<td><strong>2015 Triangle Cytoskeleton Meeting</strong></td>
<td>Research Triangle, NC</td>
<td>September 21, 2015</td>
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### Faculty Scholars Program for Early Career Researchers

The Howard Hughes Medical Institute has joined forces with the Bill & Melinda Gates Foundation and the Simons Foundation to support the Faculty Scholars program for early career researchers with impressive accomplishments who have strong potential to make groundbreaking contributions. Through this first-time collaboration, the program partners will augment and secure the pipeline of scientific talent.

The Faculty Scholars program seeks to:
- Provide financial support to faculty at an early career stage
- Select awardees based on their vision and potential for unique contributions
- Offer mentoring and career development

The program partners anticipate making up to 70 five-year awards, with new competitions every two and a half years. The awards will range from $100,000 to $400,000 per year based on several factors, including the awardee’s current external grant support.

More information is available at [www.hhmi.org/programs/biomedical-research/faculty-scholars](http://www.hhmi.org/programs/biomedical-research/faculty-scholars). The application deadline is July 28, 2015.

### Are You Getting ASCB Pathways?

You should 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.*
LSE emphasizes teaching innovations and evidence of their effectiveness. It publishes original research articles, essays, and features that help you apply education research to your own teaching.
Nominators can nominate only one person per award

**Merton Bernfield Memorial Award**

**Who is Eligible:** An outstanding graduate student or postdoctoral fellow (at the time of nomination) who has excelled in research.

**How to Apply:** The student or postdoc or his or her advisor should submit a one-page research statement, a CV, a list of publications, a copy of the abstract submitted to the current year’s Annual Meeting, and the advisor’s letter of recommendation. Postdocs may also submit the recommendation of their graduate student advisor. Duplicate applications from graduate students may be submitted for the Gilula and Bernfield Memorial Awards. Nominators or self-nominators must be ASCB members.

**Awards:** The winner is presented a plaque, is given financial support, and will speak at a Minisymposium at the Annual Meeting. Expenses to attend the Annual Meeting are paid.

**Deadline:** July 15 (electronic submission to Christina Szalinski at cszalinski@ascb.org)

**Norton B. Gilula Memorial Award**

**Who is Eligible:** An outstanding graduate or undergraduate student (at the time of nomination) who has excelled in research or first-year postdocs whose work was performed while a PhD or MD/PhD student.

**How to Apply:** The student or advisor should submit a one-page research statement, a CV, a list of publications, if any, the abstract submitted to the current year’s Annual Meeting, and the advisor’s letter of recommendation. Duplicate applications from graduate students may be submitted for the Gilula and Bernfield Memorial Awards. Nominators or self-nominators must be ASCB members.

**Awards:** The winner is presented a plaque and a ribbon for his/her poster board. Expenses to attend the Annual Meeting are paid.

**Deadline:** July 15 (electronic submission to Christina Szalinski at cszalinski@ascb.org)

For names of prior awardees or more information, visit www.ascb.org and click on “Awards” or contact the ASCB at 301-347-9300 or ascbinfo@ascb.org.

MAXIMIZE YOUR REACH TO SCIENTISTS IN BIOMEDICAL RESEARCH & CELL BIOLOGY BY ADVERTISING WITH ASCB

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Contact sales@ascb.org or call 301-518-5990.
Members in the News

JoAnn Trejo, an ASCB member since 1990, has been appointed Vice Chair for Education at the Department of Pharmacology, University of California, San Diego, School of Medicine.

Lynne E. Maquat, an ASCB member since 1991 and professor at the University of Rochester, won “for the discovery of the mechanism that destroys mutant messenger RNAs in human cells, nonsense-mediated mRNA decay, which is critically important in both normal and disease states.”

Helen Blau, professor at Stanford University and ASCB member, is one of 16 finalists in the National Institutes of Health’s Follow That Cell challenge. The $500,000 challenge asked investigators to generate new tools for analyzing single cells to observe changes in cell behavior and function over time. Blau proposed a new software algorithm that could track cells in complex multicellular environments without modifying the cells. Blau hopes to use this tool to track muscle stem cells, which are compromised in aging and diseases like Duchenne Muscular Dystrophy.

Yoshinori Ohsumi, an ASCB member since 2004, professor at the Tokyo Institute of Technology, and speaker at the 2014 ASCB/IFCB Meeting, won “for pioneering the molecular elucidation of autophagy, an essential intracellular degradation system [that] when disordered is linked to many diseases including neurodegeneration, cancer, and infection.”

Michael N. Hall, an ASCB member since 2001 and professor at the Biozentrum University of Basel, Switzerland, won “for his discovery of the nutrient activated protein kinase TOR and elucidation of its central control of cell growth, critical to development and aging and widely implicated in cancers, diabetes, cardiovascular and immune diseases.”

JoAnn Trejo, an ASCB member since 1990, has been appointed Vice Chair for Education at the Department of Pharmacology, University of California, San Diego, School of Medicine.

Helen Blau, professor at Stanford University and ASCB member, is one of 16 finalists in the National Institutes of Health’s Follow That Cell challenge. The $500,000 challenge asked investigators to generate new tools for analyzing single cells to observe changes in cell behavior and function over time. Blau proposed a new software algorithm that could track cells in complex multicellular environments without modifying the cells. Blau hopes to use this tool to track muscle stem cells, which are compromised in aging and diseases like Duchenne Muscular Dystrophy.

Three of the 2015 Canada Gairdner Award winners are ASCB members. The prestigious Gairdner recognizes outstanding achievement in biomedical research and comes with a prize of $100,000 CDN.

Lynne E. Maquat, an ASCB member since 1991 and professor at the University of Rochester, won “for the discovery of the mechanism that destroys mutant messenger RNAs in human cells, nonsense-mediated mRNA decay, which is critically important in both normal and disease states.”

Yoshinori Ohsumi, an ASCB member since 2004, professor at the Tokyo Institute of Technology, and speaker at the 2014 ASCB/IFCB Meeting, won “for pioneering the molecular elucidation of autophagy, an essential intracellular degradation system [that] when disordered is linked to many diseases including neurodegeneration, cancer, and infection.”

Michael N. Hall, an ASCB member since 2001 and professor at the Biozentrum University of Basel, Switzerland, won “for his discovery of the nutrient activated protein kinase TOR and elucidation of its central control of cell growth, critical to development and aging and widely implicated in cancers, diabetes, cardiovascular and immune diseases.”

Managing Your Membership

Keep your profile up to date.
Update your profile online to get information that is relevant specifically to you. Or, if you move, update your email or phone number, visit ascb.org/myprofile.

Need to recover login info? Visit ascb.org/recover

Add ASCB to your safe sender list
Receive the ASCB resources, news and information important to you. Ask your systems administrator to whitelist our domain “ASCB.org”

What are you up to?
Did you get a postdoc? Win an award? Did you publish?
Were you promoted? Are you now at another organization?
Your colleagues at ASCB want to know... send news on your achievements to ascbinfo@ascb.org

We welcome your comments and suggestions at ascbinfo@ascb.org

Other ways to stay in touch

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The ASCB is grateful to the following donors whose contributions between April 1, 2014, and March 31 2015, support Society activities.

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- Susan Gerbi
- Gregg Gunderson
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- John Pringle
- Evelyn Ralston
- Claire Walczak
- Maria Elena Zavala
- Yixian Zheng

**Sustainer (up to $249)**
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- Caitlin Zuilkoski
MEETINGS Calendar
A complete list of upcoming meetings can be found at ascb.org/global-meetings-calendar. The following meetings were added since the last issue of the Newsletter:

January 10–14, 2016. Breckenridge, CO

ASCB Annual Meetings
December 12–16, 2015. San Diego
December 3–7, 2016. San Francisco
December 2–6, 2017. Philadelphia
December 8–12, 2018. San Diego

Call for Teaching Mentors, Mentees
The Mentoring Active Learning and Teaching (MALT) program is an ASCB initiative designed to promote the spread of active learning strategies to the entire ASCB membership while providing postdocs and faculty members interested in gaining experience in teaching an opportunity to be exposed to best pedagogical practices. MALT promotes the formation of long-term mentor/mentee relationships to give participants the chance to learn directly from a veteran of the active learning process and see how active learning can best be done in each participant’s specific classroom situation. Mentor/mentee pairs may also apply for financial support for travel integral to their proposed mentoring objectives. If you are interested either in serving as a mentor for this initiative or in receiving mentorship, please visit http://ascb.org/mentoring-in-active-learning-and-teaching-malt and sign up in the appropriate database.

BOOKS by Members


Where to Find Research Funding Opportunities
Check out ASCB’s new online resource for information and advice about funding sources: http://ascb.org/where-to-find-research-funding-opportunities.
What can you do with MyASCB portal?

Introducing MyASCB portal, a seamless, easy-to-use tool for members to automatically renew dues and create a payment account for abstract submissions, optional subscriptions, and donations. Members can quickly update their information and interests—allowing ASCB to provide information relevant to their careers and scientific interests.

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Create Your Own Username/Password
You now have the ability to set your own username and password.

Indicate Your Areas of Interest
Provide us with your areas of interest, so we can provide you with relevant information throughout the year.

Register Your ORCID
Make sure you receive the credit you deserve. Registering your ORCID will distinguish your research activities from those of others with similar names.

We welcome your comments and suggestions at ascbinfo@ascb.org

Other ways to stay in touch ASCBiology @ASCBiology ASCB
Defining a Financial Conflict of Interest in (My) Research

Dear Labby,

I am a professor and am having an issue with my administration about what I have to disclose about the consulting work I do for a company. I am certainly willing to disclose this arrangement and how much I get paid to my university officials, but they are saying I also have to disclose the relationship (but not the money) in any talks and publications. I hear some journals require such disclosure, but really, do I have to start off my seminar talks with a similar statement? It makes me feel creepy. My institution says I have no choice. It’s not like I am getting so much money that I am going to perform fraudulent work.

—Not Tempted

Dear Not Tempted,

What your institution is requiring may seem draconian, but let’s consider some parameters that your query did not address. First, if you are conducting a clinical trial that is related to a drug, device, or other product being developed by this company for which you consult, there is an array of red flags, like an mCherry-tagged CRISPR lying on a repeated DNA sequence. Your financial relationship must be disclosed on the consent form given to subjects in the study (as a general statement, not necessarily with the details of your consulting agreement).

But if you are not involved in a clinical study for the company, the need to disclose your financial conflict of interest may be less compelling. For nonclinical work, the key issue is whether the magnitude and/or the qualitative nature of your consulting relationship with the company could imperil your objectivity as you pursue your overall research. Here are some questions to ponder in defining the extent of your conflict of interest:

• Does your institution have a sponsored research agreement (SRA) with the company to fund a project in your lab?
• Is there intellectual property of your institution on which you are a named inventor?
• If so, is there a pending or issued patent and is this company a licensee or potential licensee?
• If the company has licensed the intellectual property, has there been an up-front payment by the licensee to your institution in which you have shared via your institution’s standard allocation policy to inventors?
• Will this licensee be bringing to market a product of some kind based on your consulting work and/or an SRA that funds work in your lab, and might your research affect the marketability of this product from which you would receive royalty income?

These are the layers of the financial conflict of interest that you may have. Labby recognizes that this is a long list but encourages you to position your situation amidst them. Depending on where you think you lie, your institution’s requirement that you disclose your consulting relationship in seminars or other talks may be too draconian. Again, the needle swings far to the side of full disclosure and all due caution if your case involves clinical research. If it does not, there is room for a more liberal stance.

In legal doctrine there is something called a “bright line standard” that is designed to eliminate ambiguity is decision-making processes such as the one you are facing. (The most oft-cited example is the statutory limitation in sentencing judges have in certain cases.) In these areas of conflicts of interest there is not yet such a bright line standard, but reasonable guidelines are evolving.

—Labby

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.
Build Community and Collaboration

ASCB helps fund and organize your local meeting. Such meetings will typically involve two or more local research institutions or colleges (within or outside of the USA). Topics may range from basic science to career development, with a clear relevance to the broadly defined field of cell biology.

For more information go to ascb.org/local-meetings or email aharris@ascb.org.

Deadline for Applications:
June 2, 2015
September 31, 2015
Save the date...

2015 cell biology
ascb annual meeting
san diego, california · december 12-16