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Hans, Lua Win Bernfield, Gilula Awards



Chun Han

The ASCB has named post-doctoral fellow Chun Han of Children's Hospital Medical Center in Cincinnati to receive the ASCB-Merton Bernfield Memorial Award, and graduate student Bee Leng Lua of the National University, Singapore, to receive the fourth annual ASCB-Norton B. Gilula Memorial Award.



Bee Leng Lua

The Bernfield Award honors a post-doctoral fellow or graduate student who has excelled in research. Han will be speaking at the ASCB Annual Meeting minisymposium on Signal Transduction in Development on Wednesday, December 8.

The Gilula Award recognizes an outstanding graduate or undergraduate student who has excelled in research. ■

Straight Appointed 2005 LAC Chair



Aaron Straight

ASCB President Zena Werb has announced the appointment of Aaron Straight of Stanford University as Chair of the Society's Local Arrangement Committee for 2005.

The LAC organizes Annual Meeting events including the Social, the High School and Student Program, and the ASCB-Zeiss Run. ■

New ASCB 44th Annual Meeting Information

Minisymposium Schedule
Page 17

Subgroups &
Concurrent Symposia
Page 19

www.ascb.org

2005 Summer Meetings Announced

The ASCB will host three Summer Meetings in 2005. Attendance is limited to about 200 participants at each meeting. Details and registration will be announced in the *ASCB Newsletter* and at www.ascb.org. ■

July 15-18, 2005
University of Washington
**Cell Biology Engineering—The Cell
In Context**

Linda Griffith, Massachusetts Institute
of Technology
Jean Schwarzbauer, Princeton
University

July 21-24, 2005
Iowa State University
Nuclear Architecture and Disease
Kathy Wilson, Johns Hopkins Medi-
cal School
Tom Misteli, NIH/National Cancer
Institute

Kathy Wilson Tom
Misteli

July 27-30, 2005
University of Washington
**Coordinating the Events of Di-
rected Cell Motility**
Clare Waterman-Storer, The Scripps
Research Institute
Gary Bokoch, The Scripps Research
Institute ■



Clare
Waterman-
Storer Gary
Bokoch



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February	January 1

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Harvey Lodish

PRESIDENT'S COLUMN

Cell Biology Without Borders

"Give me your tired, your poor, your huddled masses yearning to breathe free..." reads Emma Lazarus' poem inscribed on the base of the Statue of Liberty. Since the end of the Second World War sixty years ago, another plaque could read, "Give me your aspiring undergraduate students, your Ph.D.s.... I give them the freedom to work to the best of their abilities and they will enhance the scientific and cultural life of the United States."

For six decades and more, the United States has been the Mecca for brilliant young researchers at all levels. Students come from poor countries where opportunities in scientific research are nonexistent. They come from wealthy nations where incompetent bureaucracies and senseless laws and regulations make it impossible for young scientists to develop their potential.

Science is a profession filled with and often led by first- and second-generation immigrants. Biochemistry and molecular and cell biology in this country were jump-started by refugees from Hitler's Europe. One cannot forget the image of Salvador Luria bicycling out of Paris a day ahead of the Nazis, taking a boat filled with refugees from Spain to New York, and teaming up with physicist Max Delbrück to carry out the eponymous experiment that won them the Nobel Prize. A bright young man or woman of any racial or ethnic origin, willing to think deeply and work long hours, has a good chance of succeeding in scientific research here.

In recent years, brilliant young scientists and scholars from many Asian countries have come to populate our classes of graduate schools and postdoctoral programs. They come seeking the same opportunities as did earlier generations of immigrants from Europe and are reaping the same rewards. It is no accident that a large fraction of the current assistant professors in cell biology in this country are immigrants, many of Asian origin. The health of the American scientific enterprise continues to depend on and be enriched by this continuing influx of brilliant students from other countries—we simply do not produce enough scientists

and engineers on our own.

But recent changes in immigration laws and policies are threatening this infusion of talent in U.S. labs, as the United States is sadly becoming less welcoming to foreign scientists and scholars. Foreign enrollments in our graduate schools are dropping as much as a third.

Significant delays in issuing visas are a serious part of the problem. One young technical assistant, holding an H1 visa and a US Masters degree, recently had to return to Beijing for a family emergency. It took the U.S. Embassy six weeks to process her return visa. We all know such horror stories—they affect not only our short-term research projects and symposium talks, but also the longterm future of scientific research in this country.

Executive orders banning Federal support for most research on human embryonic stem cells, coupled with a decline in the budgets

One cannot forget the image of Salvador Luria bicycling out of Paris a day ahead of the Nazis, taking a boat filled with refugees from Spain to New York, and teaming up with physicist Max Delbrück to carry out the eponymous experiment that won them the Nobel Prize.

The health of the American scientific enterprise continues to depend on and be enriched by this continuing influx of brilliant students from other countries.

for the NIH and NSF, also make a research career in the U.S. less attractive for residents and foreigners alike.

The world of research is changing rapidly and countries outside the U.S. are becoming more attractive comparatively for a student or scientist who wishes to pursue top quality research in cell biology. Some day, the ASCB may follow the lead of the American Association for the Advancement of Science, which changed its official name to "AAAS" as an indication that it is a truly international organization. We could become known as "The ASCB—The Society for Cell Biology!" Already over 20% of our members live abroad yet actively participate in our activities and attend and speak at our Annual Meeting.

Governments everywhere, realizing the importance of the research and development enterprise for their national health, are expanding and revitalizing their own research activities. China's scientific growth is keeping up with its meteoric economic rise, and the country now accounts for over 5% of the world's scientific publications.¹ Singapore and the United Kingdom, among others, encourage work on the development and cloning of new human ES cell lines. To house these and many other research activities, Singapore has just opened the seven-building Biopolis; this huge complex houses several government-supported research institutes as well as laboratories for company scientists who can interact with government researchers. These institutes, like the EMBL in Heidelberg and many others throughout the world, are filled with multiethnic young scientists from dozens of countries who are attracted by outstanding facilities and career opportunities.

The United States is a very large country with thousands of colleges, universities, and research institutes, yet it can be insular. Many American scientists—even recent immigrants—will tell you that this is the best place in the world for a research career. This was not the case in the past and may not be the case in the future.

The United States is a very large country with thousands of colleges, universities, and research institutes, yet it can be insular.

Forty years ago there were few places in this country for postdoctoral research in molecular or cellular biology. Many went to the Laboratory for Molecular Biology in Cambridge to work with giants like Crick, Perutz, and Sanger, to the Strangeway's Lab in Cambridge, or to the Pasteur Institute in Paris to work under Jacob and Monod. We

learned new styles of research, new ways of organizing the research enterprise, and new types of problems to work on. It's been noted² that a slower, more discursive, and more interactive approach to complex problems can be productive. The

LMB, the Salk Institute and the Whitehead Institute were all modeled on this ideal of a research institute, where scientists from many nations come together to work toward a common purpose of discovery.

Which brings me to my final point—the relative international immobility of U.S.-trained scientists. I find it sad that so few of our graduate students go abroad for post-

The advertisement features a blue header with white text: "major cancer centers choose our serum-free media". Below this, the background is split into two colors: orange on the left and yellow on the right. The orange section contains text about the benefits of AthenaES Serum-Free Media, including improved drug discovery and reduced protein contamination. The yellow section contains the text "AthenaES Serum-Free Media. Over 10 years of proven performance." and the AthenaES logo, which is a stylized classical building with columns. At the bottom of the orange section, the website "www.AthenaES.com" and phone number "888-892-8408" are listed.

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doctoral studies and that few of our faculty take sabbaticals abroad. Living abroad for two or three years does more than teach one new research techniques and problems, important as these are. One learns new ways of organizing scientific research that can inform and improve our institutions back home. Perhaps more importantly, one learns to appreciate new cultures and ways of living. As cell biologists and as citizens, we have much to learn from scientists in other countries.

Living in and experiencing foreign cultures makes us better able to understand the backgrounds and cultures of our students, postdocs, and faculty colleagues. We truly are part of a scientific enterprise without borders. ■

Comments are welcome and should be sent to president@ascb.org.

¹ *Nature*, 431, 116 (9 September 2004)

² *ASCB Newsletter*, 27:8 (August, 2004)

LETTER TO THE EDITOR

Taking Time Off



Dear Editor:

Thanks for Harvey Lodish's President Column (*Taking Time Off*) in the August, 2004 *ASCB Newsletter*. I can identify with much of what he said, especially as I am an American currently doing a postdoc at the MRC-LMB, in the UK. I too have noticed that taking off weekends and evenings to clear my mind has been beneficial. Also, I have noticed that though people may work long hours, the tea breaks and lunch breaks contribute to an air of healthy communication, and the frenetic energy I have witnessed so many times in the States is less present. I believe this allows people to think more, and do their experiments with clear minds, as opposed to wasting time stressing out about that 15 minutes taken to wolf down a sandwich or drink six cups of coffee... (albeit better coffee!) The tea breaks (and chocolate biscuits...) are fortifying in a more calm way and give me more solid energy for the next few hours in the lab.

Of course this is just my experience. I could believe there are many types of people responding differently to this kind of "pace." However, I have to also say it's not just a choice, it's a responsibility to take time to take care for one's children. I do not think we can ignore time for family without injuring one's family. I feel parents must organize time for their children, whether or not it cuts into their "research time"; this article may help them see that it can actually be productive to take out time for family, so they should not feel guilty about it! ■

—Giulietta Spudich

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MEMBERS IN THE NEWS

John Alderete of the University of Texas Health Science Center, an ASCB member since 2000, received the 2004 William A. Hinton Award from the American Society for Microbiology.

Mina Bissell of the Lawrence Berkeley National Laboratory, 1997 President and an ASCB member since 1973, received the Discovery Health Channel Medical Honor for "remarkable discoveries and lifesaving contributions to the field of medicine."

Patrick Brown of Stanford University School of Medicine/HHMI, an ASCB member since 1998, and **Harold Varmus** of Memorial Sloan-Kettering Cancer Center, an ASCB member since 1992, received WIRED Magazine's Rave Award for founding the Public Library of Science.

George Daley of Harvard Medical School, an ASCB member since 2004, and **Robert Phillips** of the California Institute of Technology, an ASCB member since 2003, received Pioneer Awards from the National Institutes of Health.

B. Brett Finlay of the University of British Columbia, an ASCB member since 1989, won the 2004 Michael Smith Prize in Health Research from the Canadian Institutes of Health Research.

Arthur Horwich of Yale University/HHMI, an ASCB member since 1991, and **Franz-Ulrich Hartl** of the Max Planck Institute for Biochemistry, an ASCB member since 2004, received the 2004 Gairdner Foundation International Award.

Lily Y. Jan of the University of California, San Francisco/HHMI, an ASCB member since 1999, and **Yuh Nung Jan** of the University of California, San Francisco/HHMI, an ASCB member since 1991, were awarded the 2004 K.S. Cole Award from the Biophysical Society.

Marion Johnson-Thompson of the NIH/National Institute of Environmental Health Sciences, an ASCB member since 1982, received the 2004 Alice C. Evans Award from the American Society for Microbiology.

Thomas J. Kelly of Memorial Sloan-Kettering Cancer Center, an ASCB member since 1984, won the 2004 Alfred P. Sloan Prize for notable contributions to basic science related to cancer.

Matthew Meselson of Harvard University, an ASCB member since 2003, received the 2004 Lasker Award for Special Achievement in Medical Science.

Sean Morrison of the University of Michigan/HHMI, an ASCB member since 2004, received the 2004 Presidential Early Career Award for Scientists by the White House.

Daphne Preuss of the University of Chicago/HHMI, an ASCB member since 1992, was named a lifetime National Associate of the National Academy of Sciences.

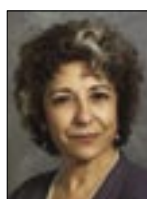
Philip Stahl of Washington University, an ASCB member since 1981, received Washington University's 2004 Carl and Gerty Cori Faculty Achievement Award.

Julie Theriot of Stanford University, an ASCB member since 1991, received a MacArthur Fellowship for 2004.

Shirley Tilghman of Princeton University, an ASCB member since 1991, was appointed an Honorary Member of the Board for the Society for Women's Health Research. ■



John Alderete



Mina Bissell



Patrick Brown



George Daley



B. Brett Finlay



Franz-Ulrich Hartl



Arthur Horwich



Lily Y. Jan



Yuh Nung Jan



Marion Johnson-Thompson



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ASCB PROFILE

Susan Lindquist



Susan Lindquist

It takes Susan Lindquist twenty-five minutes to get to her lab at the Whitehead Institute in Cambridge, and even though by Boston standards, it's an easy commute, she finds it an intolerable waste of time, twenty minutes longer than Lindquist's old commute to the University of Chicago.

"I have two children who are absolutely the joy of my life and I can still say that even though they are teenagers now," Lindquist declares. "But having children and having a career meant that I had to give up other outside interests.

It meant I had to arrange my life so that I wasn't wasting a lot of time going back and forth. In Chicago, I lived five minutes from my lab. It meant my kids lived in an apartment and not out in the suburbs, but they saw more of me because I was right there."

Lindquist continues, "I do a lot of talks about 'women in science' and gender issues [around family] because I am seeing so many young women who are terribly fearful. But there are ways to arrange things so you can have a career and have children. Any career in science can be difficult, but there's actually some synergy in having children. There's the tremendous emotional support, but children also have a way of forcing you to change your thought processes. I would get lab stuff all balled up in my mind and then the kids would make me drop it. There's a real value in that. I think it refreshes your mind and frees up your creativity for when you go back."

This December, Susan Lindquist will need some of that time for a trip to Washington where she will accept the ASCB Women in Cell Biology 2004 Senior Career Award at the ASCB's Annual Meeting. Former ASCB

President Elaine Fuchs, who helped nominate Lindquist for the award, says Lindquist is a role model and a pioneering researcher in the study of protein conformation. "Susan Lindquist's focus on protein folding mechanisms has led to paradigm-shifting discoveries in stress tolerance, gene regulation, evolution, and human protein folding disease, and has now reached into the realm of biophysics," says Fuchs.

The Senior WICB Career award is given each year to "a woman or a man whose outstanding scientific achievements are coupled with a long-standing record of support for women in science." According to Fuchs, "Susan is a remarkable leader, a brilliant scientist, a

tremendous mentor and colleague, a strong supporter of women and a compassionate mother of two teenaged girls. And she manages to accomplish far more within a 24-hour period than virtually anyone I know."

Lindquist's research took off with a bang with her pioneering molecular analysis of the heat shock response in *Drosophila* cell lines while she was still a graduate student under Matthew Meselson at Harvard. She continued at the University of Chicago as a post-doc with Hewson Swift and then as a junior faculty member, discovering how various heat shock proteins marshal the

cell's response to toxic stress and protein misfolding. The revelation that heat shock proteins can buffer genetic variations, allowing them to accumulate silently and emerge only under stress, has had major implications for oncogenesis and for evolutionary biology. It offered

an alternative mechanism that could explain how organisms could evolve quickly in the face of sudden environmental change or how cancer cells can transform so rapidly into more virulent versions of themselves.

"In Chicago, I lived five minutes from my lab. It meant my kids lived in an apartment and not out in the suburbs, but they saw more of me because I was right there."

"She can appreciate so many aspects of a problem—the chemistry, the cell biology, the animal model—that she's able to think about them all in a big way."

Lindquist's work with heat shock proteins led her towards what was then a biological heresy—the idea that a protein alone could be used as a non-genetic carrier of inheritance. The controversy went public in 1992 when Stanley Prusiner at UC San Francisco suggested that a “prion,” a misfolded protein, was the non-genetic, non-bacterial transmissible infectious agent for Creutzfeld-Jacob (Mad Cow) disease (he later won the Nobel Prize for the discovery). This “protein-only” hypothesis was highly controversial, says Jeff Kelly, a protein chemist at the Salk Institute. “I think it’s fair to say that in the early ‘90s, most people thought that protein folding wasn’t all that important. It’s now becoming increasingly clear that assessing folding efficiency and being able to degrade things that aren’t properly folded is very important in normal physiology and in pathology. Susan has had a lot to do with that change.”

According to Fuchs, “Susan Lindquist and her lab provided the first biochemical evidence that certain genetic traits are transmitted entirely by self-perpetuating changes in protein folding, without changes in DNA and RNA.”

“Susan has a grasp of science at the 100,000-foot-level,” says Kelly. “She can appreciate so many aspects of a problem—the chemistry, the cell biology, the animal model—that she’s able to think about them all in a big way. How is it that the process of prion aggregation leads to pathology? Why is that protein synthesis is required for long-term memory? Susan’s specialty is working on those kind of large problems.”


Like the hero of a Saul Bellow novel, Susan Lindquist is “an American, Chicago-born,” even if her parents were from different worlds. “Both my parents were first-generation Americans, extremely smart but mostly self-educated,” says Lindquist. “My mom’s parents were from Italy and my dad’s were from Sweden. They met in Chicago. Sometimes people say that I have an unusual ability to work with people from wildly different backgrounds. That’s my early training. My mom was a stereotypical Italian and my dad was a stereotypical Swede. And the relations on both sides were the same way.”

Growing up amidst this cultural contrast gave Lindquist her love for vivid family life. Her love of science, though, is harder to explain. “I’ve just always had this abiding interest in nature,” she says. “I remember when I was a little, I had no interest in playing with dolls. I liked to go round the neighborhood collecting things—berries, dirt, insects—and then I would mix them all together to see what would happen.”

The accomplished mud-pie chemist moved from the city to the suburb of Park Ridge, Illinois, when she was 12. She earned a full scholarship to the University of Illinois, Champaign-Urbana. There her social life blossomed. “In high school, I was shy and rather socially immature,” she recalls, “but when I got to college, I was suddenly living with all these great new girl friends and all these boys were asking me out. Quite frankly, I had a blast.”

She has proposed a new hypothesis to explain mammalian prion protein toxicity, developed a yeast model for Parkinson’s, and formed a small biotech.

Continued on page 10



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Meantime, her academics were another story, she confesses. "But I mostly got As and Bs." The As were in science classes where the work was challenging. The Bs were in everything else, once she discovered that a

Cocktail waitressing taught her to be more serious about finding a sit-down profession.

one-night cram session was all she needed to pass. To cover her living expenses, Lindquist waited tables part-time at the Pancake House, at a "Polynesian" restaurant and, for one memorable summer, in a cocktail lounge. "Now that was an education," Lindquist recalls.

Among other things, cocktail waitressing taught her to be more serious about finding a sit-down profession.

Back at school, two "wonderful" professors, Sam Kaplan and Jan Drake, noticed Lindquist's new focus. Drake invited her to do an undergraduate research project in his lab. "The experiment didn't work out," Lindquist recalls, "but it got me all fired up about working at the bench." Drake also suggested that she consider graduate school. In the spring of 1971, Lindquist found herself standing in front of a mailbox with two acceptance postcards in hand and not knowing which to return. Harvard beat out MIT then, but MIT managed to grab her later.

Lindquist, who was an HHMI investigator in Chicago for thirteen years before serving as Director of MIT's Whitehead Institute from 2001-2004, has broadened her scientific interests. She has proposed a new hypothesis to explain mammalian prion protein toxicity, developed a yeast model for Parkinson's, and formed a small biotech with Kelly called Fold Rx to explore the pharmacological possibilities of folded proteins. She worked with physicist Heinrich Jaeger to produce the first protein-based nano wires and with neurobiologist and Nobel Laureate Eric Kandel on the role of self-perpetuating prions in long-term memory formation.

Lindquist's family remains her anchor. Eleanor is 17 and a senior at Brookline High

School. Alana is 15 and a sophomore. Nora is, according to her mother, a talented writer. She talks about writing novels, although Lindquist now wonders if sports writing might be a better fit. Since the family's move to Boston, Nora has become a "fanatical" Red Sox fan and a knowledgeable one, her mother says. "I've had colleagues come over for dinner, people who've been Red Sox fans for 30 years, and Nora will talk with them about the pitching rotation and stuff like that. They tell me, 'Wow, she really knows her stuff.'" Alana is musical, a singer with a wonderful voice, says Lindquist, but also a natural born entrepreneur. "We go into a restaurant or a store and Alana will look around and start telling me things she would change."

Their father and Lindquist's husband is Edward Buckbee, a teacher of French medieval literature when they met but now a development officer for non-profits. Buckbee is a humanist, a wise man and an unwavering believer in the value of her research, according to Lindquist. He's also a nifty dancer, she says. They are devotees of the Argentine tango, which, Lindquist hastens to point out, is very different from the stylized tango you see in ballroom competition. In Chicago, they belonged to a tango club and went dancing every week. Unfortunately, the move to Boston

coincided with a dreary round of back trouble for Lindquist. But after a two-year hiatus, she says she's better and ready to tango again.

Susan Lindquist was a fabulous mentor, says Tom McGarry, who was in her Chicago lab as an MD/PhD student from 1982-'86. "Her lab was really starting to grow then, but Susan wasn't stuffy or hard to approach," says McGarry, who remains in Chicago, at Northwestern. At the time, McGarry says he didn't recognize the two most valuable things that Lindquist taught him—how to practice high-quality science, and how to write it up clearly. "It wasn't until I left Susan's lab that I realized that not every lab had such high standards, either in their science or in their writing." ■

"The two most valuable things that Lindquist taught (were) how to practice high-quality science, and how to write it up clearly."

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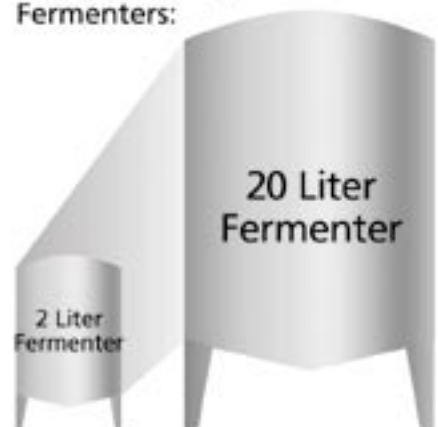
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—Prospective Consultant

Dear Prospect,

First, you definitely should go on this visit – you will learn a lot about how a biotech research company operates. But you also raise some fairly complex issues that increasingly affect many graduate students and postdocs.

You should receive an honorarium of at least a few hundred dollars for one day's work; your PI certainly will get paid! Make it clear to your PI that you feel you should be compensated for the time and effort you will put into your presentation. Companies should realize that a little cash for a graduate student or postdoc goes a long way towards building long-term loyalty.

You should never sign a legal document without first consulting your institution's technology licensing office; if you have any doubts, discuss them with a lawyer before signing. You need to request to receive the agreement sufficiently in advance of the visit to allow time for expert review. Do not put yourself in a position where you are pressured to sign something on a moment's notice on someone's reassurance that it's no big deal.

There are two types of agreements and both are legally binding. The first asks you to acknowledge that the company will tell you information that is not publicly known and for you to agree to keep this information confidential for a long period of time. Senior scientists regularly sign such agreements but Labby feels it is generally not appropriate for a graduate student or postdoc to sign one. If you do, you would not be able to tell even your closest friends or colleagues information you learned at the company; there could be significant financial and legal hassles if you do.

In the second, you will be asked to acknowledge that you may tell the company some non-public information, such as results from your thesis work, and that the company agrees to keep this information confidential. These types of agreements are obviously more favorable to the visitor and generally OK to sign. Even so, you should get advice from a lawyer or an official in your technology licensing office.

—Labby

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PUBLIC POLICY BRIEFING

Senate Committee Salvages NSF Budget

The Senate reversed a severe cut in the 2005 National Science Foundation budget when the Senate Appropriations Committee voted to increase the NSF budget by 3% compared to 2004.

The House Appropriations Committee had provided \$5.5 billion for the NSF, \$111 million below the NSF's 2004 budget and \$278 million less than the amount requested by President Bush. The Committee also departed from tradition and declined to allocate specific budgets for the various NSF directorates.

The NSF is part of the Veterans Affairs and Housing & Urban Development Appropriations bill. Along with the NSF, the bill funds

other politically important programs such as veterans and NASA, both of which have powerful allies in the Republican leadership of the House of Representatives.

In the Senate, the NSF has its own friends. Sen. Kit Bond (R-MO) and Sen. Barbara Mikulski (D-MD) lead the Senate Veterans Affairs and Housing & Urban Development Appropriations Subcommittee. Under their leadership, the Senate Appropriations Committee reversed the House action and provided the NSF with \$5.74 billion, which is the amount requested by the President in his 2005 budget and \$169 million above the NSF's 2004 budget. ■

U.N. to Consider Cloning Ban Again

The U.N. General Assembly has announced that debate on two pending resolutions on cloning will start this month.

In 2003, the United Nations debated two competing resolutions on cloning. The U.S.-backed resolution, sponsored by Costa Rica, called for a worldwide moratorium on all forms of cloning and the development of an international convention to ban cloning. The competing resolution, co-sponsored by Belgium, the United Kingdom and Japan, would have banned reproductive cloning but allowed individual nations to establish their own regulations regarding nuclear transplantation. Ultimately, the U.N. General Assembly adopted a resolution sponsored by Iran to delay consideration of the two resolutions until September 2005. (See December 2003 *ASCB Newsletter*).

South Korea will take Belgium's place as lead sponsor of the pro-research resolution

that would only ban reproductive cloning.

President Bush included support for the Costa Rican resolution banning all cloning in a speech to the United Nations in last month. "Because we believe in human dignity," the President said, "we should take seriously the protection of life from exploitation under any pretext...No human life should ever be produced or destroyed for the benefit of another."

The ASCB has been actively educating U.N. member nations about the science behind the debate. In June, ASCB members Gerry Fischbach, Larry Goldstein, Doug Melton, Gerry Schatten and Ian Wilmut were among those who briefed staff of the various U.N. delegations about nuclear transplantation. (See July 2004 *ASCB Newsletter*).

The United Nations website on cloning is at www.un.org/law/cloning/. ■



ASCB Public Policy Committee member George Daley testified before the Senate Commerce, Science and Transportation Committee on the controversy surrounding embryonic stem cells. The hearing was chaired by Senator Sam Brownback (R-KS), a leading opponent of embryonic stem cell and nuclear transplantation research.

of Congress to complete work on the budget is expected to be held next month. ■

House Calls for 2.7% NIH Increase

The House of Representatives Labor, HHS & Education Appropriations Subcommittee rubberstamped President Bush's requested \$28.53 billion for the NIH, an increase of \$764 million, or 2.7%, above the 2004 NIH budget.

The Senate has not completed its work on the NIH budget but the Senate Appropriations Committee has approved a bill that would provide \$28.91 billion for the NIH, \$1.1 billion more than the 2004 NIH budget and \$381.6 million more than the amount requested by President Bush and the House Appropriations Committee for 2005.

Senate leaders are pessimistic about the possibility of finishing work on the 2005 budget before the election. A lame duck session

President Nominates NSF Director

President Bush has nominated Arden Bement as Director of the National Science Foundation. Bement, who is also serving as Director of the National Institute of Science and Technology, has been interim NSF Director since Rita Colwell left the agency in February.



Arden Bement

Bement's nomination must be approved by the Senate. ■

CONGRESSIONAL BIOMEDICAL RESEARCH CAUCUS/ JSC CAPITOL HILL DAY



Joint Steering Committee for Public Policy CLC Capitol Hill Day attendees (above). Hillary Blumberg (top right) of Yale University spoke on The Brain in Manic-Depressive Disease at a briefing of the Congressional Biomedical Research Caucus last month.





What Else Can I Do?: Exploring Opportunities in Business and Management

The logical answer to “What are you going to do when you finish your doctorate?” is research and, possibly, teaching. But you may wonder—as you look for the right postdoc position or later in your career—“what else is out there?”

The good news is that there are options, although few paths are as clear as that of research in academia or industry. Despite the hardships and pitfalls you can encounter in securing a full-time research position, you know the drill through your mentors and advisors who know how to work the system and help you with recommendations and connections.

If you are contemplating a career in business or management, connections may not be as readily available. Ask yourself: How do I know whether it’s a good fit for me? How do I get the training or education I need? Can I make it without formal training?

Management and Business

“Business” and “management” are often used interchangeably. “Management” is the art and science of judiciously using resources to accomplish an end; it often assumes that you are leading a team or group of people to accomplish a goal. “Business” refers to a commercial enterprise that expects to be profitable. You can be in business without being a manager. You can be a manager without working at a commercial enterprise.

What does it take to be successful?

One hears about “soft” and “hard” skills

when it comes to management and business, respectively. The “hard” skills needed for business include data analysis, project planning, budgeting, accounting, and the

use of other tools that are best acquired in an academic setting. Your scientific education and training has demanded analytical skills, project planning and strong intellectual aptitude. These are easily transferable to the business world.

“Soft” skills, which are

important for management, include the ability to communicate effectively, to inspire or lead a team of people, to listen, and to work effectively with others to accomplish a common goal. “Soft” skills are primarily personal traits that can be honed, but not taught.

If you enjoy working with others and have these “soft” skills, and want to move beyond the research lab, then management, whether in business, academia, philanthropy, or the non-profit world, may be a great choice for you. If making a profit for yourself or your company sounds exciting, then business could be a good match.

From Here to There

Several options for pursuing management as a career exist. They range from taking the plunge into a full-time MBA program to taking an occasional seminar, to making the leap without the benefit of formal training.

A full-time MBA program works best if you want to switch from research to business. You will learn the required tools, develop a network (similar to that in the research world), and gain access to

on-campus recruiters and a career placement center. A summer position between the two years of school enables you to add a business job to your resume (in this world it's not called a "CV"!), furthering your ability to secure a permanent position. As a critical side benefit, most MBA programs also help you to hone your "soft" skills.

Unlike graduate school in science, professional schools, including business school, require a significant, front-end financial investment. Unless you are independently wealthy, you will have to assume significant debt, as scholarships are rare at graduate business schools. Starting salaries for MBAs, however, often are double or triple the salary of an academic, so this should be taken into account.

If you are curious about the business world, but not willing to make the sacrifice required of a full-time MBA program, consider part-time programs that meet in the evenings and/or over the weekend. This option is effective if you want to minimize the financial burden or are unsure that you want

to leave research. You will miss the interaction among classmates and the intensity of a full-time program, but you will have access to career placement services and, most importantly, you will learn the necessary business skills. Of course, you will also continue to earn an income and advance in your current position.

Even if you want to remain in the research world, taking occasional management courses, or enrolling in seminars offered by organizations such as the American Management Association¹ may be smart. Successful researchers in academia, industry or other settings must manage a lab with significant grants and staff. You could also be asked to serve as a Chair, on the Board of a biotech start-up, or as an officer of your scientific society. In these circumstances, good busi-

ness and management skills will serve you and your institution well.

The Direct Route

Pharmaceutical companies and health- and medicine-related businesses and foundations seek individuals who have academic credentials in the life sciences. These venues can offer the opportunity to go directly from your doctoral program or the bench to a position in a corporation or foundation.

If you wish to move up the management ranks in the corporate world without the benefit of an MBA, you are likely to start out in research.

From there, you can explore professional development through in-house training or the Human Resources Department. As project manager positions become available, your research skills, combined with on-site management training, should lead to promotions.

Foundations that are committed to medical research often seek program officers who understand basic science. Program officers must track and interpret research activities so as to identify and fund the most promising opportunities. Foundations expect you to be an expert and to have numerous connections throughout your field. This ensures that you stay current with developments and help craft new grant initiatives. Foundations are less likely to provide in-house training, but may support your effort to pursue a part-time MBA program or seminars to shore up your scientific knowledge with business and management acumen.

The culture of business and management may seem foreign to many basic scientists, but the skills, intelligence and intensity required have much in common with the culture of science. ■

—Kathleen Gwynn

Gwynn served as Director of MBA Admissions at the Graduate School of Business at Stanford University from 1981 to 1985.

¹ www.amanet.org

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The ASCB 44th Annual Meeting

December 4-8, 2004
Washington, DC

Harvey Lodish, *President*
Sandra Schmid, *Program Chair*
Norka Ruiz Bravo, *Local Arrangements Chair*

Keynote Symposium

Saturday, December 4, 6:00 PM

Cell Biology - Rising to Meet the Medical Challenges of the Next Century

Peter Kim, *Merck Research Laboratories*
Sir Paul Nurse, *The Rockefeller University*

Symposia

Sunday, December 5

Directed Cell Migration in Development—8:00 am

Susan McConnell, *Stanford University*
Erez Raz, *Max Planck Institute*
Pernille Rorth, *European Molecular Biology Laboratory, Heidelberg, Germany*

The Mechanics of Membrane-Bound Machines—10:30 am

Peter Agre, *The Johns Hopkins School of Medicine*
Jeff Dangel, *University of North Carolina, Chapel Hill*
Ehud Isacoff, *University of California, Berkeley*

Monday, December 6

Regulation of Cellular Programs—8:00 am

Raymond Deshaies, *California Institute of Technology*
Richard Kessin, *Columbia University*
Peter Walter, *University of California, San Francisco*

Small RNAs & Gene Regulation—10:30 am

Robin Allshire, *The Wellcome Trust Centre for Cell Biology, University of Edinburgh*
Jim Carrington, *Oregon State University*
Thomas Tuschl, *The Rockefeller University*

Tuesday, December 7

The Cytoskeleton & Spatial Organization in Cells—8:00 am

Joan Brugge, *Harvard Medical School*
David Drubin, *University of California, Berkeley*
Joel Rosenbaum, *Yale University*

Modeling of Complex Cellular Behaviors—10:30 am

June Nasrallah, *Cornell University*
Garrett M. Odell, *University of Washington*
John Tyson, *Virginia Polytechnic Institute and State University*

Wednesday, December 8

Cell Biology of Aging—8:00 am

Judith Campisi, *Lawrence Berkeley National Laboratory*
Cynthia Kenyon, *University of California, San Francisco*
Doug Wallace, *University of California, Irvine*

Minisymposia

Sunday, December 5, 3:40pm - 5:45pm

Cargo Selection & Vesicle Formation

Bruno Antony, *Institut de Pharmacologie Moléculaire & Cellulaire, Valbonne, France*
Linton Traub, *University of Pittsburgh School of Medicine*

Cell Biology of the Immune System

Janice Blum, *Indiana University*
Daniel Davis, *Imperial College London, UK*

Cell Migration & Adhesion

Margaret Frame, *Beatson Institute for Cancer Research, Glasgow, UK*
Yu-li Wang, *University of Massachusetts Medical School*

Cell Regulation Through Extracellular Proteolysis

Carl Blobel, *Cornell University*
Marcos Milla, *University of Pennsylvania*

Cytokinesis & Cellularization

Ahna Skop, *University of Wisconsin, Madison*
William Sullivan, *University of California, Santa Cruz*

ECM Biogenesis & Function

Enid Neptune, *The Johns Hopkins School of Medicine*
Peter Yurchenco, *LIMDNJ-RW Johnson Medical School*

Prokaryotic Cell Biology

Piet de Boer, *Case Western Reserve University*
Kit Pogliano, *University of California, San Diego*

Protein Translocation Across Membranes

Arthur Johnson, *Texas A&M University College of Medicine*
Carla Koehler, *University of California, Los Angeles*

Signaling in Cell Proliferation & Death

Jean Wang, *University of California, San Diego*
Jeff Wrana, *Samuel Lunenfeld Research Institute, Mt. Sinai Hospital, Toronto*

Monday, December 6, 3:40pm - 5:45pm

Cell Biology of Intracellular Pathogens

Michel Desjardins, *University of Montréal, Canada*
Julie Theriot, *Stanford University*

Cell Biology of the Neuron

Shelley Halpain, *The Scripps Research Institute*
Josh Kaplan, *Massachusetts General Hospital*

Cell Regulation Through Extracellular Proteolysis

Carl Blobel, *Memorial Sloan-Kettering Cancer Center*
Marcos Milla, *University of Pennsylvania*

Diverse Cellular Functions for Ubiquitin & Related Proteins

Erica Johnson, *Thomas Jefferson University*
Wes Sundquist, *University of Utah*

Intermediate Filaments

Robert Goldman, *Northwestern University*
Harald Herrmann, *German Cancer Research Center*

Molecular Microscopy in Living Cells

Klaus Hahn, *University of North Carolina, Chapel Hill*
John Heuser, *Washington University*

The Nuclear Envelope: Structure & Transport Mechanisms

Tom Misteli, *The National Cancer Institute/NIH*
Katherine Ullman, *University of Utah*

Systems Biology: Theory & Practice

Joseph Ecker, *The Salk Institute for Biological Studies*
Trey Ideker, *University of California, San Diego*

Tuesday, December 7, 3:40pm - 5:45pm

Asymmetry in Development

Juergen Knoblich, *Institute of Molecular Biotechnology, Vienna, Austria*
Geraldine Seydoux, *The Johns Hopkins University*

Autophagy & Organelle Turnover

Beth Levine, *University of Texas SW Medical Center*
Yoshinori Ohsumi, *National Institute for Basic Biology, Okazaki, Japan*

Cell Cycle

Susan Forsburg, *University of Southern California*
Thomas McGarry, *Northwestern University*

Chemical Biology

Ben Cravatt, *The Scripps Research Institute*
Barbara Imperiali, *Massachusetts Institute of Technology*

Chromatin Structure & Functional Organization of the Nucleus

Shelley Berger, *The Wistar Institute*
Jan Ellenberg, *European Molecular Biology Laboratory, Heidelberg, Germany*

Cytoskeletal Dynamics

Arshad Desai, *University of California, San Diego*
Laura Machesky, *University of Birmingham, UK*

Establishment & Maintenance of Membrane Subdomains

Rob Parton, *University of Queensland, Australia*
Catherine Rabouille, *UMC Utrecht, The Netherlands*

Signal Transduction Networks

Anton Bennett, *Yale University*
Margaret Chou, *University of Pennsylvania*

Wednesday, December 8, 3:15pm - 5:20pm*

Cell Junctions & Polarity

Andre Le Bivic, *Institute of Developmental Biology, Marseilles, France*
Enrique Rodriguez-Boulant, *Cornell University*

Control of Gene Expression

Ronald Breaker, *Yale University*
Stephen Buratowski, *Harvard Medical School*

Intraflagellar Transport in Human Health

Martina Brueckner, *Yale University*
Gregory Pazour, *University of Massachusetts Medical School*

Microtubule-Based Motility

David Burgess, *Boston College*
Sarah Rice, *Northwestern University*

Secretory Organelles & Regulated Exocytosis

Michael Marks, *University of Pennsylvania*
Aaron Turkewitz, *University of Chicago*

Signal Transduction in Development

David Greenstein, *Vanderbilt University*
James Posakony, *University of California, San Diego*

Stem Cells

Alejandro Sánchez Alvarado, *University of Utah*
Sean Morrison, *University of Michigan*

Thermal & Mechano-Sensation

Monica Driscoll, *Rutgers University*
Ardem Patapoutian, *The Scripps Research Institute*

*Please Note New Time

For more information, contact the ASCB at (301) 347 9300

ascbinfo@ascb.org or www.ascb.org

2004 Predoctoral Travel Awards

The ASCB Education Committee has selected the following top-ranked students to receive Predoctoral Travel Awards to the ASCB 44th Annual Meeting in Washington, sponsored by the Worthington Corporation:

Jae Won Shin, *The University of Sydney, Australia*
Zhiyin Song, *University of Science and Technology of China, The Peoples Republic of China*
Robert Torka, *University of Bonn, Germany*

The ASCB Education Committee has selected the following students and scientists to receive travel awards which are funded by ASCB members, the Gynzyme Corporation, Schering-Plough Research Institutes and Syngenta International.

Patricia C. Abad, *Purdue University*
Yair Adereth, *Medical University of South Carolina*
Andrew R. Beardsley, *West Virginia University School of Medicine*
Kristin Bibee, *Washington University School of Medicine*
Nicolas Bilodeau, *Laval University, Canada*
Salil Bose, *University of Texas Medical Branch*
David Bryant, *Institute for Molecular Bioscience, Australia*
Laura C. Buelow, *Utah State University*
Tamara V. Castro, *Universidad de Concepcion, Chile*
Fanny S. Chang, *Washington University School of Medicine*
Wei Chen, *Oregon State University*
Chandrasagar Dugani, *Programme in Cell Biology, Canada*
Lacramioara Luisa Fabian, *York University, Canada*
Jakub Konrad Famulski, *University of Alberta, Canada*
Jessica L. Feldman, *University of California, San Francisco*
Alexander M. Ferreira, *University of Western Ontario, Canada*
Annie Fiset, *Laval University, Canada*
Donald Fox, *University of North Carolina*
Chuanhai Fu, *Morehouse School of Medicine*
Neil J. Ganem, *Dartmouth Medical School*
Melissa Klein Gardner, *University of Minnesota*
Olivia L. George, *New Mexico State University*
Karine A. Gibbs, *Stanford University*
Suchitra Gopinath, *Centre for Cellular and Molecular Biology, India*
Pierre-Yves Gougeon, *Ottawa Health Research Institute, Canada*
Olga A. Guryanova, *Shemiakin-Ovchinnikov Institute of Bioorganic Chemistry, Russia*
Gisela Gutiérrez Iglesias, *National Institute of Cardiology Ignacio Chávez, Mexico*

Darren M. Hutt, *Ottawa Health Research Institute, Canada*
Jyoti C Jonna la Gadda, *Queensland Institute of Medical Research, Australia*
Claudia Victoria Karacsonyi, *Hannover Medical School, Germany*
Jonathan Karpel, *University of California, Davis*
Atsuko Kasai, *Research Institute for Microbial Diseases, Osaka University, Japan*
Vaibhav Katkade, *Temple University*
Sachin Katyal, *University of Alberta and Cross Cancer Institute, Canada*
Seth M. Kelly, *Emory University School of Medicine*
Puneet Khandelwal, *Jawaharlal Nehru University, India*
Joongbaek Kim, *Graduate School of Biostudies, Kyoto University, Japan*
Kin-Hang Kok, *The University of Hong Kong, Hong Kong*
Valery Krizhanovsky, *The Hebrew University of Jerusalem, Israel*
Philip J. Lee, *University of California, Berkeley*
Mariana Leguia, *Brown University*
Jun Liang, *Queens College-CUNY*
Jennifer N. Lilla, *University of California, San Francisco*
Vladimir Litvak, *Weizmann Institute of Science, Israel*
Limin Liu, *City of Hope National Medical Center and Beckman Research Institute*
Robert M. Lober, *Medical College of Georgia*
Monika Lodyga, *University Health Network, University of Toronto, Canada*
Kimberly Loesch, *University of Alabama-Birmingham*
Emma A. Lynch, *University of Notre Dame*
Javier Guillermo Magadán, *Cuyo University, School of Medicine, Argentina*
Jean Ann Maguire, *Wake Forest University School of Medicine*
Leandro J. Martínez Tosar, *Fundación Instituto Leloir, Argentina*
Elizabeth J. McLachlan, *University of Western Ontario, Canada*
Yong Miao, *University of Science and Technology of China, Peoples Republic of China*
Rachel K. Miller, *Emory University*
Jeffrey Thomas Mital, *University of Vermont*
James B. Moseley, *Brandeis University*
Deepti Navaratna, *School of Medicine, University of New Mexico*
Flávia Cristina Nery, *UNICAMP/LNLS, Brazil*
Roddy S. O' Connor, *Emory University*

May M. Paing, *University of North Carolina at Chapel Hill*
Jenny Paupert, *Institut de Pharmacologie et de Biologie Structurale, France*
XinXin Quan, *McGill University, Canada*
Nuno Raimundo, *University of Helsinki, Finland*
Jason S. Rockel, *University of Western Ontario, Canada*
Peter J.B. Sabatini, *University of Toronto, Canada*
Michaela
Anne Scherer, *Adelaide University, Australia*
Andreas Schleifenbaum, *EMBL, Germany*
Gautam Sethi, *BHU, India*
Le Shen, *The University of Chicago*
Federica Simeoni, *Centre National de la Recherche Scientifique, France*
Kevin Sloan, *Tufts University School of Medicine*
Ximena Soto, *Universidad de Concepcion, Chile*
Benjamin L. Stottrup, *University of Washington*
Gayathri Swaminathan, *Temple University School of Medicine*
Xi "Jessie" Tang, *Louisiana State University Health Science Center*
Amar Thyagarajan, *University at Albany, State University of New York*
Sokol V. Todi, *The University of Iowa*
Aikaterini Tsaousi, *University of Bristol, United Kingdom*
Stan F. van de Graaf, *NCMLS, The Netherlands*
Julia Vent, *Creighton University*
Saertje Verkoijen, *Leiden/Amsterdam Center for Drug Research, The Netherlands*
Yosuke S. von Heyden, *Imperial College London, United Kingdom*
Puyue Wang, *University of Pennsylvania*
Gregory F. Weber, *Thomas Jefferson University*
Naomi L. Wernick, *Brandeis University*
Jacqueline A. Whyte, *University of Notre Dame*
Ching-hang Wong, *Population Council*
Xiaoyang Wu, *Cornell University*
Yongjie Yang, *Iowa State University*
Wei Yu, *Institute of Biochemistry and Cell Biology, Peoples Republic of China*
Yuliya Zilberman, *Weizmann Institute of Science, Israel*
Krishna H. Zivraj, *Institute for Cell Biochemistry and Clinical Neurobiology, Germany*
Ekaterina Zubkova, *McGill University, Canada*
Lidia M. Zúñiga, *Pontificia Universidad Católica de Chile, Chile* ■

2004 Minorities Affairs Committee Travel Awards

The ASCB Minorities Affairs Committee has selected the following students and scientists to receive travel awards which are funded through an NIH NIGMS MARC grant:

Katie Alfonso, *St. Augustine College*
Derek Applewhite, *Northwestern University*
Lisa Banner, *The City University of New York*
Patricia Burgos, *University of Colorado*
Ayesha Carter, *Virginia Technological Institute*
Andrew Clark, *University of California, Irvine*
Kathia Cordero, *University of Puerto Rico, Mayaguez*
Mauricio Cortes, *University of Chicago*
German Criollo, *St. Augustine's College*
Kevin Davis, *University of Pittsburgh School of Medicine*
Omar Escamilla, *California State University, Northridge*
Maria Fadri, *Baylor College of Medicine*
Pierre Fotso, *University of Arkansas*
Kristine Garza, *University of Texas, El Paso*

Olivia George, *New Mexico State University*
Gustavo Gonzalez, *University of Puerto Rico, Mayaguez*
Karen Hubbard, *The City University of New York*
Anthony Hunt, *University of North Carolina, Pembroke*
Damon Jacobs, *University of North Carolina, Chapel Hill*
Travious Johnson, *North Carolina Central University*
Bertina Jones, *University of North Carolina, Chapel Hill*
Karl Kingsley, *University of Nevada, Las Vegas*
Catherine Lacayo, *Stanford University*
Luis Martinez, *University of Texas, El Paso*
Vivian Navas, *University of Puerto Rico*
Latany Hammond-Odie, *Spelman College*
Shanda Perry, *North Carolina Central University*
Gloricelys Rivera, *Universidad Metropolitana Science and Technology*
Roberto Roman, *University of Puerto Rico, Mayaguez*
Jennifer Romero, *St. Augustine's College*

Gloria Salazar, *Emory University*
Geidy Serrano, *University Puerto Rico, Institute of Neurobiology*
Charles Shuster, *New Mexico State University*
Raquel Sitcheran, *University of North Carolina, Chapel Hill*
Souvenir Tachado, *Beth Israel Medical Center*
William Towns, *University of Notre Dame*
Melanie Van Stry, *Boston University*
Flavia Wald, *University of Miami*

The ASCB Minorities Affairs Committees has selected the following students, whose research is in aging, to receive NIH National Institute on Aging MAC Travel Awards

Claudette Davis, *The City University of New York*
Sara Herrera, *Lake Forest College*
Roberta Kiffin, *Albert Einstein College of Medicine* ■

Special Interest Subgroups

Special Interest Subgroups will be held at the Washington Convention Center, from 1:00 PM - 5:30 PM on Saturday, December 4. Descriptions, speakers and room numbers are posted at www.ascb.org, and in the *Annual Meeting Program*.

- A. Actin Nucleation and Organization by Adhesive Contacts**
Scott D. Blystone, *State University of New York Upstate Medical University*
- B. Advances in Signaling Pathways Regulating Cellular Interactions for Bone Formation**
Masaki Noda, *Tokyo Medical and Dental University*
- C. Advancing the Careers of Women Scientists: A Role for Everyone**
W. Sue Shafer, *University of California, San Francisco*
- D. Single Molecules and Nano—Scale Biology**
Ryan K. Louie, *Stanford University School of Medicine* and Xuebiao Yao, *Hefei National Laboratory for Physical Science*
- E. Computational Modeling in Cell Biology**
Ann Cowan, *University of Connecticut Health Center*
- F. Embryonic Stem Cell Biology**
Jerry Schatten, *University of Pittsburgh*
- G. Endocytosis and Dynamics of Caveolae/Raft Domains**
Ivan R. Nabi, *University of British Columbia*
- H. Gap Junctions**
Paul Lampe, *Fred Hutchinson Cancer Research Center*
- I. Improving Your Visibility on the Job Market**
Samantha Zeitlin, *SCOPT; University of California, San Diego*
- J. Mitotic Spindle Morphogenesis and Chromosome Movement**
Duane Compton, *Dartmouth Medical School*
- K. Muscle Cytoskeletal Protein Assembly**
Joseph W. Sanger, *University of Pennsylvania*
- L. Protein Interactions in Live Cells Studied By Optical Methods ***
David W. Piston, *Vanderbilt University* and Bill Strackbein, *Optical Imaging Association*
- M. Signaling and Cellular Responses to Endocannabinoids, a Novel class of Bioactive Lipid**
Somnath Mukhopadhyay, *North Carolina Central University*
- N. Structural Insights into Kinesin Function**
Carolyn Moores, *Birkbeck College, University of London*
- O. Studies on Microtubule Plus-End Tracking Proteins**
David Pellman, John A. Hammer, III, and Xin Xiang, *Harvard Medical School*
- *Starts at 12:30 pm

Member-Organized Concurrent Symposia

Concurrent Symposia will be held at the Washington Convention Center, from 10:30 AM - 12:00 noon on Wednesday, December 8. Speakers and room numbers are posted at www.ascb.org, and in the *Annual Meeting Program*.

- A. The Challenge of the Conformational Disease fold to Cell Biology**
William E. Balch, *The Scripps Research Institute*
- B. Clickers and Case Studies: Alternatives to Lectures in the Undergraduate Classroom**
Katayoun Chamany, *Eugene Lang College—New School University* and William Wood, *University of Colorado—Boulder*
- C. Mechanics in Cell Biology**
Gaudenz Danuser, *The Scripps Research Institute*

Gifts

The ASCB is grateful to the following members who have recently given a gift to support Society activities:

Josephine Clare Adams
Robert S. Adelstein
Valerie A. Barr
Michael W. Berns
Nancy L. Bucher
Steven Edward Cala
Laura A. Cisar
Caroline H. Damsky
Thelma Dunnebacke-Dixon
William Eckberg
Sarah C.R. Elgin
Patricia Gallagher
Ching Ho
Mary Lynn Johnson
Sasha Koulisch
William M. Leach
Martin Linke
R. John Lye
Sean McDermott
John R. Merriam
Mohanda Narla
Rudolf Oldenbourg
Virginia Papaioannou
Charles R. Park
Michael K. Reedy
James H. Sabry
Hitoshi Sakakibara
Frederick L. Schuster
Emma Shelton
Alicia Yia-Fei Welch
Edith C. Wolff
Robin L. Wright

MAC Names Visiting Professors

Since 1997, the ASCB MAC NIH/NIGMS/Minority Access to Research Careers program has supported 31 visiting faculty from underrepresented minority-serving institutions to work in the laboratories of ASCB host scientists. This year, three visiting professors conducted collaborative research at the Louisiana State University Health Sciences Center, the University of Maryland School of Medicine and the University of Massachusetts at Amherst. Professors spend up to ten weeks in host labs, refining research techniques and teaching strategies while developing long-term collaborations with research-intensive institutions. ■



Duane Johnson (left) with host faculty Walter Rayford at the Louisiana State University Health Sciences Center.



Anne Osano (center) with host faculty Michele Stone and Robert Bloch at the University of Maryland School of Medicine.



Sylvester McKenna (right) with host faculty Peter Hepler at the University of Massachusetts at Amherst.

ASCB 44th Annual Meeting Education Workshop Saturday, December 4, 1:00 PM - 5:30 PM

Learn how to make your course a BLAST.

Join us for a hands-on, wireless internet workshop where you will be guided through exercises using Protein Explorer, WormBase, OMIM, a novel Gene Ontology web interface, dbSNP and GEO (microarray database) from NCBI, as well as some basics about perl programming.

Bring your wireless-ready laptop, and explore bioinformatic tools with colleagues who have used these free resources in their classes. Presenters represent biology and computer science departments as recommended by the NRC's BIO2010 report.

Chair: A. Malcolm Campbell, Davidson College

Speakers:

Rebecca Roberts, Ursinis College
Matt DeJongh, Hope College
Casonya Johnson, Morgan State University
Libby Shoop, Macalester College

Cost is \$15
See www.ascb.org

ASCB 44th Annual Meeting K-12 Science Education Partnership Sunday, December 5, 12:00 Noon - 3:00 PM

Toby Horn of the Carnegie Academy for Science Education (CASE) will present the fourth in a series of workshops designed to encourage and assist ASCB members in becoming involved in science education activities at the K-12 level in their local communities. The lunch will begin with a hands-on, inquiry-based exploratory activity that will be performed by all the attendees. Horn will then make a presentation on 1) the value of using inquiry approaches in the classroom, 2) age appropriate cell biology lessons, 3) meeting national and state standards, and 4) the extent to which scientists can bring their own research into the K-12 classroom. Q&A and roundtable discussions among local teachers, ASCB members with experience in K-12 partnerships and ASCB members interested in becoming involved in such activities will follow.

The membership of the ASCB holds enormous potential for contributing to the quality of K-12 science education, nationally and in local schools, but this requires a genuine partnership between scientists and the K-12 education professionals.

Cost for students is \$15, non-students \$20.
See www.ascb.org

Faculty Position **Gene Silencing, Molecular Genetics or Molecular Evolution Position**

Institute for Integrative Genome Biology
University of California, Riverside

The Institute for Integrative Genome Biology at the University of California, Riverside (UCR) invites outstanding applications for an open-level position (assistant, associate or full professor) in molecular evolution, gene silencing or other areas of molecular genetics and genomics. The candidate will join a growing, interdisciplinary Institute with broad interests in genomics and post-genomics biology, and will be appointed as a faculty member in the UCR department of his/her discipline. The Institute is a major campus initiative that brings together researchers from various biological disciplines, as well as computational, physical and social sciences (<http://www.genomics.ucr.edu/>). The Institute also operates a Core Instrumentation Facility, providing centralized, shared-use equipment in genomics, proteomics, microscopy and imaging, and bioinformatics. The successful candidate would be expected to establish and maintain a vigorous, innovative research program, and have a strong commitment to excellence in teaching at the undergraduate and graduate levels. Applicants must hold a Ph.D., and post-doctoral experience is essential for candidates at the assistant level. Review of applications will begin January 1, 2005, with appointment as early as July 1, 2005. Applications will be accepted until the position is filled. Applications should include a curriculum vitae, statement of research and teaching interests, and have letters of three references sent (assistant level) or provide names and addresses of three references (associate and full level) to: Dr. Jian-Kang Zhu, Director, Institute for Integrative Genome Biology, 2132 Batchelor Hall, University of California, Riverside, CA 92521. The University of California is an Equal Opportunity/Affirmative Action Employer.

ASCB Job Service **Free to Members**

The American Society for Cell Biology Job Board invites ASCB members to post their CV free of charge. Individuals who post their CV may control access to identifying information. CVs are accessible and searchable without charge. Employers pay a nominal fee to list positions. Employers and job seekers contact each other directly; interviews may be scheduled by mutual convenience at any time throughout the year or at the ASCB Annual Meeting Career Center. For more information or to post your CV, go to www.ascb.org/careers.

Assistant Professor **Kansas State University**

The Division of Biology at Kansas State University invites applications for a tenure-track Assistant Professor position beginning in the 2005/2006 academic year. We seek an individual who will establish a strong, extramurally-funded, NIH-relevant research program in the general area of cellular, molecular or developmental biology. Appropriate areas of expertise include cellular biochemistry, cell regulation, animal development, cellular immunology, cell response to stress or infection. This individual will contribute to undergraduate and graduate instruction in an area appropriate to their training. A Ph.D. or equivalent and postdoctoral training are required. The position will include a competitive salary and start-up package. The Division of Biology is a large, diverse unit with a strong record of research productivity and funding with established investigators and 11 recently hired faculty in molecular and cellular areas of virology, immunology, and development (<http://www.ksu.edu/biology>). Applicants should submit curriculum vitae, selected reprints, summaries of research and instructional interests, and have three letters of reference sent to: Stephen K. Chapes, Chair; Cell Biology Search Committee; Division of Biology; Kansas State University; 232 Ackert Hall; Manhattan, KS 66506-4901. Review of complete applications will begin on November 12, 2004, and continue until the position is filled. KSU is an equal opportunity employer and actively seeks diversity among its employees.

GRANTS & OPPORTUNITIES

BWF/HHMI Lab Management Guide. *Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty* is available at www.hhmi.org/labmanagement.

NIH Virtual Career Center. The NIH Office of Education offers resources for exploring employment options and career development opportunities in health sciences. See www.training.nih.gov/careers/careercenter/index.html.

NIAID Biodefense Fellowships. The NIH National Institute of Allergy and Infectious Diseases solicits applications from biodefense training and development researchers of prevention, detection, diagnosis and treatment of diseases caused by potential bioterrorism agents. Grants, fellowships and career development awards. See www.niaid.nih.gov/biodefense/research/funding.htm.

NIH Re-entry Program. The NIH and Office of Research on Women's Health announce a continuing program for faculty who have taken time out for family responsibilities. See <http://grants.nih.gov/grants/guide/pa-files/PA-04-126.html>.

NIH Grants.

- Large-Scale Collaborative Project Awards, see <http://grants2.nih.gov/grants/guide/pa-files/PAR-04-128.html>. Deadlines: September 20, 2006 and June 21, 2007.
- Predoctoral Research Training in Biostatistics, see <http://grants2.nih.gov/grants/guide/pa-files/PAR-04-132.html>. Deadline: October 12, 2007.
- Tools for Genetic and Genomic Studies in Emerging Model Organisms, see <http://grants2.nih.gov/grants/guide/pa-files/PA-04-135.html>. Deadline: November 2, 2007.
- National Technology Centers for Networks and Pathways, see <http://grants2.nih.gov/grants/guide/rfa-files/RFA-RM-04-019.html>. Deadline: February 22, 2005. ■



The
UNIVERSITY of VERMONT
Molecular Physiology & Biophysics

FACULTY POSITION

The Department of Molecular Physiology & Biophysics at the University of Vermont is seeking to recruit a **Cell Biologist/Biophysicist** at the **Assistant Professor** level on the **tenure-track**, although Associate and Full Professor candidates will be considered.

The Department has significant strength in protein structure and function with emphasis on contractile and cytoskeletal proteins. The ideal candidate will complement existing expertise in molecular biology, single molecule biophysics, and structural biology. The candidate will be expected to develop an independent, extramurally funded research program in cell biology with emphasis on *mechanism by which the cytoskeleton and molecular motors govern cellular function*, e.g. cell signaling and cell division.

The candidate must be willing to team-teach mammalian physiology in a medical school setting. Start-up funds will be competitive, and access provided to graduate students and postdoctoral fellows through departmental training grants.

The University of Vermont is an equal opportunity/affirmative action employer. Review of applications will begin immediately, and continue until the position is filled. Include a résumé, research plan, teaching experience, and the names of three references whose letters must be received prior to review of your application.

Address all inquiries and materials to:

Dr. Robert Low
Chair Faculty Search Committee
Department of Molecular Physiology & Biophysics
Health Science Research Facility
149 Beaumont Avenue
Burlington, VT 05405-0075 U.S.A.
Bob.Low@uvm.edu

PHONE: (802) 896-2540

<http://physioweb.med.uvm.edu>

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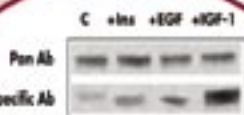
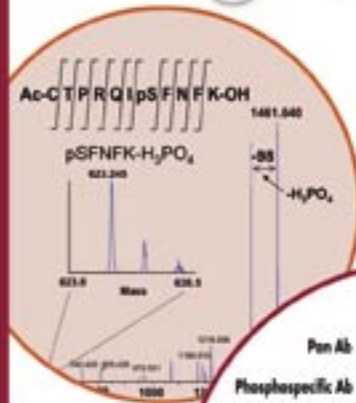
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ASCB Annual Meetings

2004
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December 4-8

2005
San Francisco
December 10-14

2006
San Diego
December 9-13

2007
Washington, DC
December 1-5

2008
San Francisco
December 13-17

2009
San Diego
December 5-9

MEETINGS CALENDAR

December 4-8. Washington, DC.

The American Society for Cell Biology 44th Annual Meeting. See www.ascb.org.

February 12-16, 2005. Long Beach, CA.

Biophysical Society 49th Annual Meeting. Early Registration Deadline: December 10. See www.biophysics.org.

April 2-6, 2005. San Diego, CA.

Experimental Biology Annual Meeting. Abstract deadline: November 3. See www.faseb.org/meetings.

April 30-May 4, 2005. Barcelona, Spain.

European Symposium of the Protein Society. Abstract deadline: December 1; early registration deadline: December 6. See www.proteinsociety.org.

June 5-9, 2005. Atlanta, GA.

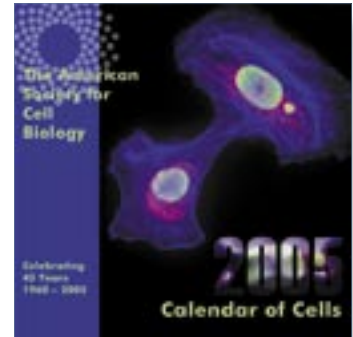
American Society for Microbiology General Meeting. Abstract submission begins on October 15. See www.asm.org.

July 13-17, 2005. New York, NY.

Second International Symposium on Triglycerides, Metabolic Disorders and Cardiovascular Diseases. See www.lorenzinifoundation.org/.

September 3-7. Dresden, Germany.

European Life Scientist Organization Annual Meeting. See www.elseo.org. ■



ASCB 45th Anniversary 2005 Calendar

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