

Biophysical Society Elections . . . . .	1
Dues Notice . . . . .	1
Biophysical Society Awards . . . . .	2
Biophysical Society Fellows . . . . .	3
Biophysicist in Profile . . . . .	4
Biophysicists in the News . . . . .	5
Careers . . . . .	6
Opportunities . . . . .	7
Professor Sarah Bellum . . . . .	8
2003 Annual Meeting . . . . .	10
Satellite Meeting Announcement . . . . .	11
Early Careers Development Panel . . . . .	11
Membership Report . . . . .	12
Biological Fluorescence Subgroup . . . . .	12
Public Affairs . . . . .	14
Upcoming Events . . . . .	16

### 2003 Membership and Subscription Renewals

Society members were recently emailed the first notice of their 2003 membership and subscription renewal together with instructions for renewing online through the secure website. The electronic format is designed to make it easier for members to update their contact information, which appears in the Society and FASEB directory each year. Renewing online also allows members to instantly receive a receipt for their payment.

### 2002 Society Election Results

#### President-elect



*Steve Harvey*  
University of Alabama  
at Birmingham

#### Secretary



*Ruth Altschuld*  
Ohio State University  
Medical Center

#### Treasurer

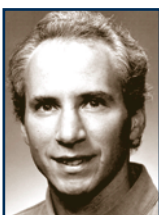


*Mordecai Blaustein*  
University of Maryland  
School of Medicine

#### Councilors



*Stephen Baylor*  
University of Pennsylvania



*Christopher Berger*  
University of Vermont



*Clara Franzini-Armstrong*  
University of Pennsylvania  
Medical School



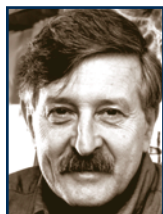
*Sharona Gordon*  
University of  
Washington



*Elizabeth Komives*  
University of  
California, San Diego



*Eduardo Rios*  
Rush University



*Frederick Sachs*  
State University of  
New York, Upstate

*Steve Harvey*, currently Professor of Biochemistry and Molecular Genetics at the University of Alabama at Birmingham, was elected President-Elect of the Biophysical Society. Harvey will become the Georgia Research Alliance Eminent Scholar in Structural Biology at Georgia Institute of Technology on January 1, 2003. He will assume the office of president-elect at the 2003 Annual Meeting in San Antonio and begin his term as President during the 2004 Annual Meeting in Baltimore.

*Ruth Altschuld*, Professor at Ohio State University Medical Center, was elected Secretary and *Mordecai Blaustein* of the University of Maryland School of Medicine was elected Treasurer. *Stephen Baylor*, *Christopher Berger*, *Clara Franzini-Armstrong*, *Sharona Gordon*, *Elizabeth Komives*, *Eduardo Rios* and *Frederick Sachs* were elected to serve three-year terms on Council.

This was the first year in which electronic voting was used. Twenty-five percent (1402) of eligible members voted, an increase from prior years.



# Biophysical Society

9650 Rockville Pike  
Bethesda, Maryland 20814-3998  
Tel: 301-530-7114; Fax: 301-530-7133  
E-mail: [society@biophysics.org](mailto:society@biophysics.org)  
<http://www.biophysics.org/>

## Officers

### President

Wilma K. Olson

### President-Elect

Yale Goldman

### Past-President

Mary Dicky Barkley

### Secretary

Jill Trewhella

### Treasurer

Antonio Scarpa

## Council

Dorothy Beckett

Diana J. Bigelow

Mordecai P. Blaustein

Robert Clegg

Franco Conti

Timothy A. Cross

Cristobal G. Dos Remedios

Edward H. Egelman

Julio Fernandez

Jeff Gelles

Susan L. Hamilton

James M. Hogle

Linda Kenney

James C. Lee

Barry Lentz

David H. MacLennan

Justin Molloy

Eva Nogales

Carol B. Post

Ligia Toro de Stefani

Lukas Tamm

## Biophysical Journal

### Editor-in-Chief

Robert Callender

## Society Office

### Executive Director

Ro Kampman

## Publications Manager

Dianne McGavin

## Newsletter Production

Cheryl Szaro

## Profiles

Cheryl Szaro

The Biophysical Society Newsletter (ISSN 0006-3495) is published six times per year January/February, March/April, May/June, July/August, September/October, and November/December by the Biophysical Society, 9650 Rockville Pike, Bethesda, Maryland 20814-3998. Distributed to USA customers and other countries at no cost. Canadian GST No. 898477062. Postmaster: Send address changes to Biophysical Society, 9650 Rockville Pike, Bethesda, MD 20814-3998.

Copyright © 2002 by the Biophysical Society. Printed in the United States of America. All rights reserved.

## 2003 Society Award Winners Named

The 2003 Society Award winners were recently named. This year's winners are *Patricia Jennings*, Michael and Kate Bárány Award for Young Investigators; *Irwin Kuntz*, Founders Award; *John F. Nagle* and *Stephanie Tristram-Nagle*, Avanti Award in Lipids; and *Michael Summers*, Emily M. Gray Award. The Society is indebted to the efforts of all the nominators and those who sent supporting letters for the many nominations for each award. The awardees will present lectures at the Annual Meeting's Awards Symposium. *Michael Summers* will speak at the Student Symposium.



*Patricia Jennings*

University of California, San Diego  
*Michael and Kate Bárány Award  
for Young Investigators*

For contributions to the understanding of protein folding and for the great promise of her research programs.



*Irwin Kuntz*

University of California, San Francisco  
*Founders Award*

For significant contributions in computational modeling in biology and chemistry.



*Michael Summers*

University of Maryland  
*Emily M. Gray Award*

For significant contributions to education in biophysics, in particular for the highly innovative and forward thinking programs he has set up for minority undergraduate training.



*John F. Nagle*

Carnegie Mellon University



*Stephanie Tristram-Nagle*

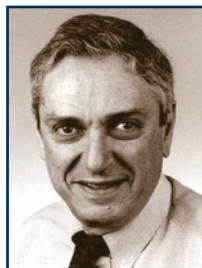
Carnegie Mellon University

*Avanti Award in Lipids*

For their significant contributions to both theory and experimental biophysics.

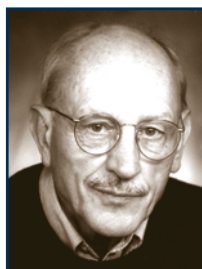
## 2003 Society Fellows Named

Each year the Biophysical Society honors distinguished members who have demonstrated excellence in science and contributed to the expansion of the field of biophysics. Seven Society members have been selected to receive this honor at the 2003 Annual Meeting. They are listed below. Fellows will be recognized at the Annual Awards Ceremony on Monday, March 3, 2003.



*Mordecai P. Blaustein*  
University of Maryland  
School of Medicine

For contributions in the fundamental new knowledge to the field of calcium signaling in excitable cells.



*David R. Davies*  
NIDDK, NIH

For distinguished research, leadership, and service in macromolecular crystallography.



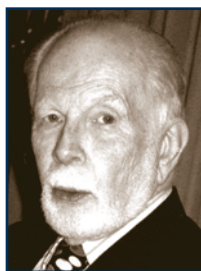
*Richard M. Epand*  
McMaster University

For his major contributions in the area of membrane lipid biophysics.



*John Gergely*  
Boston Biomedical Research Institute

For fundamental contributions to the understanding of mechanism of activation of muscle contraction, in particular through pioneering studies of the structure and function of the troponin complex.



*Rufus Lumry*  
University of Minnesota

For his fundamental contributions to the development of biophysics.



*James H. Prestegard*  
University of Georgia

For being a pioneer, innovator, and important contributor to NMR theory and practice as applied to biological macromolecules.

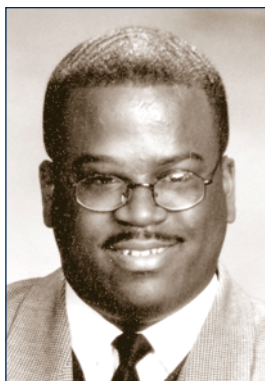


*Peter G. Wolynes*  
University of California,  
San Diego

For contributions to significant advances in the theory of protein folding and structure.

The Society thanks the members of this year's Awards Committee: *Walter Chazin*, Chair, *Mary D. Barkley*, *Robert Gennis*, *Yale Goldman*, *Wilma K. Olson*, and *Cynthia Wolberger*.

## Biophysicist in Profile



Paul Adams

Since his early days as a young boy in Baton Rouge, Louisiana, *Paul Adams* always knew he would be involved in science. He still remembers receiving his first chemistry set from his parents for his eighth birthday. While both his parents were musicians and not involved in science, they urged their son to be the best that he could be. “Even though he may not be the best there is, to do his personal best means success in life,” his parents told him. And that’s what Adams set out to do.

In high school, Adams remembers science mainly because the work was challenging, and one teacher in particular was supportive and pushed him—subtly—to succeed. Adams reflects that one of his toughest obstacles has always been getting serious about his studies. During his senior year in high school, his chemistry teacher, *Fran Frost*, kept him on track and made him study for an extra Advanced Placement exam even after his graduation. Although he has not seen her since graduation, he credits her with giving him the extra nudge he needed. He is looking forward to his high school reunion in 2006, and to thanking her for where he is today.

Adams started college at Louisiana State University (LSU) in 1986 and again did not take his studies very seriously. In his junior year, while working in the mailroom at LSU, Adams took an Analytical Chemistry class taught by *Mary Barkley*. He enjoyed the challenges of figuring out how things worked in biophysics. Barkley noticed that each time the students put their homework equations on the board, Adams would find a different approach. He never “aped the textbook solutions,” she recounts, but he always got the same end result. This ‘thinking creatively’ intrigued Barkley, who says that “...diversity in science means big progress.” Recognizing his potential, she asked him what he was doing working in the mailroom and gave him a job in her lab. But she did not let him off easy. Barkley admits that she held

him to higher standards. “I wanted him to be prepared to handle the universal skepticism that he would encounter as a minority,” she explains. Being prepared meant that he needed to be better than most, sufficiently precise, structured and disciplined. Although Adams speaks about how his parents were the greatest positive influence in his life, he credits his professional life in large part to Barkley, his ‘professional second mother.’ “Without her influence and mentorship,” Adams says, “I’d be in some chemistry lab somewhere as a base level chemist.”

Following acceptance as an early admission candidate at the LSU Medical Center Medical School in Shreveport, Louisiana, Adams planned to go into surgery. While he enjoyed the textbook learning, he was not so enthused about “putting his hands on people.” He also found it difficult to

maintain the emotional distance necessary when treating ill patients. There was also a major event in Adam’s life at this time—his mother was diagnosed with cancer. After just one year, Adams left medical school to return home.

---

**Recognizing his potential, she asked him what he was doing working in the mailroom and gave him a job in her lab.**

---

Upon returning to Baton Rouge, he decided he wanted to pursue the PhD. He completed his BS in Biochemistry from LSU’s main campus, then enrolled in graduate school there. After a year of lab rotations, and six months of a second year in another lab, a spot opened up in Barkley’s lab at LSU, and Adams took it. When Barkley moved to Case Western Reserve University in the fall of 1996, Adams followed. Still reeling from the loss of his mother in February of that same year, he felt the move would help, and he needed to keep focused on his career. He found that his parents’ past support and belief in him helped keep him on track more so than ever.

Working in Barkley’s lab also helped. Barkley involved her students in weekly meetings to discuss what each of them was up to. These meetings fostered collaboration and enabled the group to share experiences. In spite of this, Adams did have times when he felt alone. There were no minorities in the lab, and at times he felt that nobody understood him. “They would ask why I did certain things, things that were a part of my African-American culture,” he recounts, “It was not a negative experience, it just left me feeling that nobody was on my side.”

His experience made him realize how important outreach and mentoring could be. Barkley recalls his involvement in public service through his church, and his dedication to mentor high school students even in his early days in Louisiana. His experience on the

Minority Affairs Committee (MAC) have shown him that minority students today have more going for them than he had. When he mentors students and visits schools, he speaks to large groups. Being in a group setting lets them know that they have each other. Having someone to relate to, someone who is going through the same experiences is beneficial to their success. Adams works with MAC to inform students about the advantages of biophysics, that it is so much more than biology. Coming from a chemistry background, he tells them of all the opportunities in the field of biophysics. He wishes to stress to students that “there is so much more to get out of biophysics than what we put into it.”

Adams is also involved with the Society for Advancement of Chicanos and Native Americans (SACNAS) and is looking forward to its meeting this September. This year the MAC will have a booth set up. “Having the one location,” he says, “we can draw more people to us, and not have to seek them out.”

After he completed his PhD in Chemistry at Case Western, Adams moved east to work in Robert Oswald’s

lab at Cornell University in New York, where he is today. “I like the fact that I am in an environment that affords me the chance to try and further develop my abilities as an independent researcher, but still have Oswald’s guidance when things are not going well in the lab,” Adams explains.

Adams chose to work at Cornell because he thought the lab would foster his development as an independent investigator, and allow him to continue to learn about NMR spectroscopy.

“This is what I like,” he says, “and also because the project has implications for understanding how cancer propagates itself and that is very personal to me.”

Helping minority students pursue higher goals has become a family affair. Adams’ wife of a year and a half, Stephanie, works as a counselor in the multicultural affairs office at Ithaca College. Her work entails mentoring and fostering success in underrepresented minorities at her school, much he says, like his efforts on the MAC where he

exposes underrepresented minorities to the vast opportunities in biophysics that they may not be aware of.

Adams recalls that Barkley spent countless hours in the lab, “She was not one of those people who left at five every day.” Adams strives to be like her. “It will be tough to live up to her, but I’m trying,” he explains. When he is not in the lab or helping students, Adams enjoys racquetball and walking.

The eight year-old boy with a chemistry set has come a long way. He was recently awarded a National Science

**“Biophysics was not discussed at the dinner table, and I chose a career that does not consist of many minorities.”**

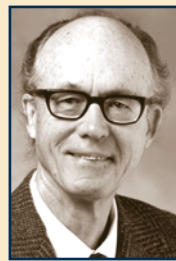
Foundation minority postdoctoral fellowship for his ongoing research on the structural characterization of mutant forms of a

G protein known to be involved with cellular transformation. While this is his proudest professional moment, he reflects that, “Biophysics was not discussed at the dinner table, and I chose a career that does not consist of many minorities.” He thinks about how his forefathers would be proud to see where he is today. “In spite of everything, I am a doctor, but I know that my greatest achievements are yet to come.”

## Biophysicists in the News



*Peter Satir*, Albert Einstein College of Medicine, Society member since 1969, received the Henry Gray Award for unique and meritorious contributions to and achievements in anatomical sciences by the American Association of Anatomists.



*Harden McConnell*, Stanford University, Society member since 1980, received the 2002 Welch Award in Chemistry for lifetime achievement in basic chemical research.

## A New Chapter: Editing as a Career



Laurel L. Haak, Early Careers Committee

I have loved writing for as long as I can remember. Doing experiments and observing the world around me were also fascinating. So what better thing to do than merge the two interests in a research career. I started early—middle school science projects (Mom and I did one on laundry detergent and stains), then on to the high school science fair circuit. I even helped my sister design her science fair project—and that's when I realized I also really enjoyed teaching.

In college, my frosh advisor encouraged my choice to go into research, with the goal of landing a faculty position. I found a position as an undergraduate researcher with some help from the resident assistant in my sophomore dorm. And since then, I have been working in a lab. I always imagined that I would be a professor, running my own lab, with a gaggle of grad students and postdocs in tow.

So, how did I end up as an editor?  
First loves die hard.

Truth be told, while in graduate school at Stanford I considered pursuing a career in publishing or editing and did a fair amount of research into these

options. Stanford had a program for biology and medical students (BIO-MASS) that brought in speakers from a variety of careers, and the editors and science writers always intrigued me. However, I had been a graduate student liaison for an Association for Women in Science mentoring project, and was well aware of the issue of retention of women in science careers (read: academia). If I was trying to stop up the leaky pipeline, I certainly couldn't be one of the leaks!

I decided to stay the course and headed off across the country to NIH. I had been awarded an NRC Research Associateship to work on neuron-glia signaling. After the inevitable rocky start, my research project on local calcium signaling picked up and went quite well. My advisor helped establish a collaboration with a lab renowned for their work on calcium sparks. I would drive the 45 miles to Baltimore at the crack of dawn with live cells in the passenger seat to play with a wonderful confocal microscope in a cave of a room. Life was good. I organized a research symposium on sparks, I taught a mini-course on sparks, my research papers and reviews were published in very nice journals.

At about the same time that I moved to NIH, I took over editorship of a quarterly newsletter for Women in Neuroscience. I was thus able to continue my advocacy of women in science and sate my desire to write without acronyms. After three years as editor, another enthusiastic postdoc took over the helm. I focused on my research and the looming job search. I went on interviews for industry positions. I sent out applications for faculty positions. When a job posting came across my desk for "Editor of the Postdoc Network at AAAS and Science's Next Wave", I was intrigued. Here was a full-time job where I could write, address policy

issues, and get paid for it. I couldn't resist the opportunity. I reasoned that I had been in research for 15-odd years, and maybe it was time for a change. I reasoned that I could take the job and still move back into research if I wasn't gone too long.

That was this past January. Now, five months later, I have organized a national meeting on postdoc workforce policy; discussed issues with John Marburger, the President's Science Advisor; been invited to testify before a National Academies committee; and best of all I get to write, commission, and edit articles.

The Postdoc Network (<http://nextwave.sciencemag.org/pdn/>) is a free-access online resource for everyone interested in improving the postdoctoral experience: postdocs, faculty, administrators, funding agency officials, disciplinary society representatives, in short: you! My primary responsibility is to develop editorial content for the site, which has a bi-monthly publication schedule. I always have a full plate, but I like that it is me and not an essay that determines when I can leave at the end of the day. My son likes that I can work from home one day per week.

I find much of what I do analogous (with a twist) to my experiences in research. My position is supported by a grant (from the Alfred P. Sloan Foundation). I go to scientific meetings, work to establish collaborations, and organize seminars and meetings. I am quite independent, but part of a team of dedicated professionals. What's different? No pipettes, no toxic chemicals, and no Nobel.

People come to editing careers from a variety of angles. I have found my research background to be essential, but there is no prerequisite for postdoctoral work. There are many flavors of editing, from managing peer review at a

research journal or funding agency, to drafting policy statements, to editing textbooks. If you are contemplating a career in editing, I would suggest checking out the recent career feature on Science's Next Wave (<http://nextwave.sciencemag.org>), contacting editors for informational interviews, and volunteering to get experience. This is a great job, and I am glad I get to do it!

—*Laurel L. Haak*  
Editor, Postdoc Network  
Science's Next Wave, AAAS  
[lhaak@aaas.org](mailto:lhaak@aaas.org)

## Opportunities

### *New Sloan Research Fellowships In Computational and Evolutionary Molecular Biology*

The Alfred P. Sloan Foundation announced the initiation of new Sloan Research Fellowships in Computational and Evolutionary Molecular Biology.

Sloan Research Fellowships are awarded each year to a select number of scientists in the early stages of their careers, usually in their first faculty appointments.

The deadline for receipt of nominations is September 15, 2002. Candidates must be members of the regular faculty (i.e. tenure track) of a college or university in appointments in United States or Canada, and be nominated by a senior scientist; direct applications are not accepted. The eligibility criteria are described in appropriate detail in the full program announcement, which may be obtained at: [www.sloan.org](http://www.sloan.org)

For further information contact: *Michael S. Teitelbaum*, Alfred P. Sloan Foundation, 630 Fifth Avenue, Suite 2550, New York, NY 10111, [teitelbaum@sloan.org](mailto:teitelbaum@sloan.org)

### *National Science Foundation (NSF) International Research Fellowship Program (IRFP) 2003 Program Announcement (NSF 02-149)*

Eligible applicants must be citizens or permanent residents of the United States as of October 8, 2002, and must have earned a doctoral degree within three years of the application date or expect to receive the doctoral Degree by the award date. Women, minorities, and persons with disabilities are strongly encouraged to apply. These postdoctoral fellowships are available in any field of science and engineering research or education supported by NSF. Proposals for research in the clinical-medical or disease-related fields are not eligible for support from NSF.

Appropriate host sites are foreign science and engineering centers in all geographical regions. This includes institutions of higher education, industrial research institutions/laboratories, government research institutes/laboratories/centers, nonprofit research organizations, and foreign sites or centers of excellence. A letter of invitation from the prospective host scientist(s) or engineer(s) - both for the foreign tenure and any re-entry component - describing the proposed interaction between the applicant's research and the ongoing research efforts at the foreign site is part of the proposal. You may have a research project that involves several hosts and countries, but it must be very clear on what will be done where and when. Awardees are expected to work full time on their research projects. Support is not provided for teaching, writing textbooks, preparation of prior research results for publication, or similar activities.

The range of award amounts in the most recent competition was \$60-\$150K. A Fellow will have full time

tenure of from three to 24 months. The 24-month period may include one year (or a portion of the total duration) at the foreign site and one year (or duration equal to the foreign tenure) used as a re-entry component in the United States. A recipient of a fellowship must begin tenure within the award year.

The anticipated award date is March 31, 2003. Applicants who are permanent residents of the U.S. may not request a host site in their native country. Recipients of previous International Research Fellowship awards are not eligible. Applicants may submit only one fellowship application each year. For those interested in Japan, please contact *Susan Parris* at the NSF for further instructions.

Electronic due date is October 8, 2002, via FastLane. For more information contact:

*Susan Parris*, NSF Program Manager  
International Research Fellowship Program  
Phone: (703) 292-8711  
E-mail: [sparris@nsf.gov](mailto:sparris@nsf.gov)  
Web: <http://www.nsf.gov/cgi-bin/getpub?nsf02149>

### *Institut Pasteur Postdoctoral Fellowship*

The Pasteur foundation is offering postdoctoral fellowships for US citizens who are willing to perform their postdoctoral studies at the Institut Pasteur in Paris, France. The fellowship is \$60,000 (\$45,000 for the individual and \$15,000 for research support) per year for three years. This program is only for US citizens and does not apply to candidates already in France.

The deadline for the application is September 20th. For more details visit: [www.pasteurfoundation.org](http://www.pasteurfoundation.org).

## Ask Professor Sarah Bellum

Professor Sarah Bellum answers your questions on navigating the often-uncharted waters of early career development. Professor Bellum was inspired by Ms. Mentor, a column by *Emily Toth* appearing in *The Chronicle of Higher Education*, and is written by *Patricia L. Clark*, chair of the Early Careers Committee. Do you have a question for Professor Bellum? Send it to [sarah\\_bellum@biophysics.org](mailto:sarah_bellum@biophysics.org). Your privacy is assured!

**Q:** *I've just finished my first year of graduate school at a well-known research university. I am looking forward to working in the lab full-time this summer, getting a taste for research and getting my project off the ground. But I am having a hard time adjusting my schedule. The other grad students and postdocs in the lab work at least twelve (often more!) hours a day, every day, including weekends. I really want to get started quickly, so I am trying to work as much as they do, but after a few days of keeping those hours, I find I am completely exhausted, and fall asleep whenever I sit down! Also, my wife (who has a 'real job') is upset that I am always in lab; she complains we never do anything fun together anymore. Truth be told, this bothers me, too. Maybe I am not cut out for the demands of graduate school, or academic research. Should I think about leaving graduate school??*

— No Time Left

**A:** Ah, yes: it is time once again for a crop of enthusiastic new graduate students to fuse fully with their chosen laboratory, and quickly offer up the cry, "How hard am I supposed to be working???" This is a delicate subject, on many fronts. Certainly, you would like to work as hard as possible, in order to make fast progress on your project. And you'll do anything to avoid being perceived as a 'slacker' by your PI. But you can't work twenty-four hours a day, right? And unlike 'real jobs' that almost always have a well-defined 'start' and 'end' time to the daily grind, lab work is much more fluid. Your experiments may demand weird hours: you may be at the mercy of your tissue culture samples, for example, or monitoring a reaction with excruciatingly slow kinetics. But how, then, do you get a feel for when the workday should begin and end? Rest assured: while there are no firm answers, there are good guidelines.

First, take a closer look at those lab-mates of yours, the ones 'working'

marathon hours each and every day. Observe how they structure their workday, and how much they accomplish each day. Are they designing, planning, performing, and analyzing experiments constantly? Probably not; no one can operate continually with the highest possible productivity. Remember, playing "Doom" on the Internet for hours straight is not the same as working in the lab, even if the game playing takes place in the lab. Nor is playing "Doom" while dialyzing a protein preparation; there are more effective uses of your time. Similarly, you are not working effectively if you need to repeat an experiment three extra times because you did not take the time to plan the controls carefully, or find the right piece of apparatus, or reserve time to use a shared piece of instrumentation, or dropped a rack of tubes at the end of

a particularly grueling day. I heard a report of a remarkable architecture professor (now retired), who, upon hearing a student complain that a low grade on a project was undeserved because the student spent weeks straight in the design studio, responded, "We are not collecting buckets of sweat!" Work leaner, not longer.

Are your lab-mates married? Do they have families, children, or dogs? If not, they may view the lab not just as a place to work hard for the joy of scientific discovery, but also as a place to relax, to be with

---

**“...plan your most demanding tasks...for the most productive portion of the day, and move more mindless stuff...to the times when your productivity is ebbing.”**

---

friends, or to use a computer with a faster Internet connection than their 28.8 kbps modem at home. There may not be much pulling them out of the lab, but that is no reason why you should follow the same pattern. If you find your mate during graduate school or your postdoc-

toral training, and definitely if you have children during these years, you will find your schedule suddenly constrained in ways you might never have thought possible. See if there are other married graduate students in your department, and ask them how they balance their work and family commitments. Many are able to manage both only because they use their time efficiently. This means careful

planning, to maximize the value for both lab work and family time.

Some personal self-assessment can serve you well through the demanding days of graduate research: figure out your daily 'productivity cycle', and try to make best use of the times of day that you are most productive. Are you naturally a night owl, not reaching your full potential till after lunch (and three or four caffeinated drinks)? Or are you an early bird, most productive when your eyes first open in the morning, and it's all downhill from there? Try to plan your most demanding tasks (writing and revising manuscripts, analyzing data, or planning experiments, for example) for the most productive portion of the day, and

move more mindless stuff (autoclaving, backing up data, etc.) to the times when your productivity is ebbing.

Also, whether you have started a family of your own or not, it is very important to maintain outside (non-science) interests throughout graduate school and beyond.

**“...watch out for PIs who are unable to distinguish between ‘being in the lab all day’ and ‘working hard all day.’”**

First of all, nothing will help your sanity more than doing something completely un-lab-like when lab work has you down: it can be a great stress-reliever to go home

and bake a perfect soufflé, or grow prize petunias, for example, when you can't get your western blots to work. Second, you will be shocked to find that activities that seem completely disconnected from your science have a way of helping you become a better scientist: learning to draw, for example, had a profound effect on my scientific writing. Third: it's a cliché, but it's true: when you go looking for a job, you will find that employers have a much easier time remembering you if you can be identified as, "John Jones: nice graduate work in solid-state NMR, several good publications, and an avid sailor/watercolorist/weaver/etc.", rather than "John Jones: nice graduate work...what was it that he worked on again?!"

Finally, watch out for PIs who are unable to distinguish between 'being in the lab all day' and 'working hard all day.' It's true: PIs like to see their lab members in the lab when the PI is in the lab (and hopefully, long after they have left). Sadly, some PIs are known for swinging by campus in the evening, stopping by lab to 'pick something up', and coincidentally checking on who is around at that hour (shocking and deplorable, but true). If you are still deciding which lab to join, ask the lab's current members about what kind of work structure is encouraged by the PI. If you have already joined a lab and only now realize that productivity is computed as being present at all hours, take active steps to change this culture. Start writing up monthly progress/planning reports, even if your lab does not require it. Give a copy to your PI, and ask for a few minutes to review the most important points. This is an excellent habit no matter what your lab's work culture, but in a lab that values visibility, a written record of your progress can go a long way towards convincing your boss that you are moving forward just as fast as everyone else, even if the oil you burn is at noon and not at midnight.

## Help the Biophysical Society Demystify the Graduate and Postdoc Lab Selection Process!

Remember how nerve-racking it was to choose a postdoc lab, project, and/or advisor? Or a graduate project/advisor? Remember trying to imagine how it was going to be to work with that advisor, those lab mates, that project? How it often felt like there wasn't enough time, or a chance to hear enough comments from current members of that interesting lab?

Now you can help other people facing these tough questions! The Biophysical Society Early Careers Committee is looking for volunteers to serve as contact-points in academic, industrial, and government labs. Contact-points will provide contact information to help connect people interested in working in one lab with current members of the lab, and/or provide some informal impressions about the lab, if requested. Contact-points will be assembled into a searchable database on the Biophysical Society web site. To register, please go to <http://www.biophysics.org/committees/ecvdb.asp>

## Annual Meeting Update

### Symposia

#### Actin and Tubulin—Passive Substrates or Active Players?

*Tom Pollard*, Yale University, Chair  
*Julie Theriot*, Stanford University  
*Edward Egelman*, University of Virginia  
*Marileen Dogterom*, Institute for Atomic and Molecular Physics, Amsterdam

#### Awards Symposium

Will run unopposed to all symposia.

#### Biophysics in situ

*Karel Svoboda*, Cold Spring Harbor Laboratory, Chair  
*Petra Schwille*, Max-Planck Institute, Göttingen  
*Philippe Bastiaens*, European Molecular Biology Laboratory, Heidelberg  
*Wolf Almers*, Vollum Institute

#### Calmodulin Regulation of Ion Channels

*John Adelman*, Oregon Health and Science University, Chair  
*David Yue*, Johns Hopkins University  
*Gerhard Meissner*, University of North Carolina  
*Mark Anderson*, Vanderbilt University

#### Chaperones—Diversity in Structure and Mechanism

*Sue Wickner*, National Institutes of Health, Chair  
*Helen Saibil*, Birkbeck College, London  
*Bernd Bukau*, Institute of Biochemistry and Molecular Biology, Freiburg  
*Andreas Matouschek*, Northwestern University

#### Countering the Emerging Biological Threat

*Jill Trewhella*, Los Alamos National Laboratory, Chair  
*R. John Collier*, Harvard University  
*Basil Swanson*, Los Alamos National Laboratory  
*John Young*, University of Wisconsin

#### Helicases and Motor Proteins that Act on Nucleic Acids

*Dale Wigley*, Cancer Research, UK, Chair  
*Smita Patel*, University of Medicine and Dentistry of New Jersey  
*Kevin Raney*, University of Arkansas  
*Terence Strick*, Cold Spring Harbor Laboratory

#### Macromolecular Signaling and Trafficking of Ion Channels

*Lily Jan*, University of California, San Francisco, Chair  
*Johannes W. Hell*, University of Iowa  
*Robert Kass*, Columbia University  
*James Trimmer*, State University of New York, Stony Brook

#### Mechanochemistry of Unconventional Myosins

*Kathy Trybus*, University of Vermont, Chair  
*Toshio Yanagida*, Osaka University  
*Sarah Rice*, Stanford University

#### Membrane Trafficking and Targeting

*Suzanne Scarlata*, State University of New York, Stony Brook, Chair  
*Jim Hurley*, National Institutes of Health  
*Scott Emr*, University of California, San Diego  
*Jennifer Lippincott-Schwartz*, National Institutes of Health

#### Microtubule Motors: Structures and Mechanisms

*Joe Howard*, Max-Planck Institute, Dresden, Chair  
*Sharyn Endow*, Duke University  
*Kazuhiro Oiwa*, Kansai Advanced Research Center  
*Ron Milligan*, Scripps Research Institute

#### Molecular Mechanisms of Membrane Fusion: Protein Machines & Lipid Materials

*Barry Lentz*, University of North Carolina, Chair  
*Axel Brunger*, Stanford University  
*Leonid Chernomordik*, National Institutes of Health  
*John Skehel*, National Institute for Medical Research, London

#### New and Notable

The program for this symposium will not be finalized until December 2002. We will attempt to spread a wide net to find out what is truly new and notable, and hope for input from the membership as we move closer to the time of the meeting.

#### Nucleic Acid Structure and Dynamics

*Jamie Williamson*, Scripps Research Institute, Chair  
*Ignacio Tinoco*, University of California, Berkeley

#### Probing Excitability and Contractility by Gene Transfer

*Eduardo Marban*, Johns Hopkins University, Chair  
*John Solaro*, University of Illinois, Chicago  
*Henry Lester*, California Institute of Technology

*Jeanne Nerbonne*, Washington University,  
St. Louis

### **Protein Folds, Function, and Evolution**

*Mark Gerstein*, Yale University, Chair  
*Gitte Neubauer*, Cellzome, Heidelberg  
*Nick Grishin*, University of Texas  
Southwestern, Dallas  
*Bonnie Berger*, Massachusetts Institute of  
Technology

### **Single Molecule Folding and Catalysis**

*Jane Clarke*, Cambridge University, Chair  
*Daniel Herschlag*, Stanford University  
*Julio Fernandez*, Mayo Clinic  
*Xioawei Zhuang*, Harvard University

### **Structural Integration— Chromatin at Many Levels of Detail**

*Jeffrey Hansen*, University of Texas Health  
Science Center, San Antonio, Chair  
*Karolin Luger*, Colorado State University  
*Chris Woodcock*, University of  
Massachusetts

*Sepideh Khorasanizadeh*, University of  
Virginia

### **Topoisomerases and Recombinases: Enzymes that Push DNA Around**

*Jim Berger*, University of California,  
Berkeley, Chair  
*Phoebe Rice*, University of Chicago  
*Vincent Croquette*, Centre National de la  
Recherche Scientifique, Paris  
*Nicholas Cozzarelli*, University of  
California, Berkeley

### **Workshops**

#### **Overexpression of Membrane Proteins**

*Robert Nakamoto*, University of  
Virginia, Chair  
*Reinhard Grishammer*, National  
Institutes of Health  
*Ronald Kaplan*, Finch Medical College  
*Ina Urbatsch*, Rochester University  
*Svetlana Lutsenko*, Oregon Health and  
Science University

*Ben de Kruijff*, Utrecht University

### **Physical Techniques in Proteomics**

*Michael Snyder*, Yale University, Chair  
*Erin O'Shea*, University of California,  
San Francisco  
*Brian Chait*, Rockefeller University  
*Charlie Boone*, University of Toronto  
*Marc Vidal*, Harvard University

### **Quantifying Reversible Macromolecular Association**

*Jack Correia*, University of Mississippi  
Medical Center, Chair  
*Nancy Thompson*, University of North  
Carolina  
*Jim Cole*, University of Connecticut  
*Walter Stafford*, Boston Biomedical  
Research Institute  
*Peter Schuck*, National Institutes of  
Health  
*Roy Marriuzza*, Center for Advanced  
Research in Biotechnology  
*George Makhataдзе*, Penn State College  
of Medicine

### **Satellite Meeting**

#### **DRUG DISCOVERY FOR ION CHANNELS, III**

#### *Advances in Electrophysiology and Assay Development*

Friday, February 28, 2003

San Antonio Convention Center

8:00 AM–5:15 PM

Registration: <http://www.biophysics.org/>

Traditional electrophysiology techniques identified ion channels as critical mediators of physiological processes and as targets of many drugs. These classical techniques, although well suited for analysis of drug mechanism, are limited as tools for drug discovery, because of expertise requirements, lack of automation and limitations in the kinds of preparations suitable for analysis. This symposium focuses on emerging electrophysiology technologies that will revolutionize electrophysiology as a tool for drug discovery and functional screening. These include the automated two-electrode voltage clamp, the "patch-on-a-chip" method and other methods for parallel whole-cell recording, and the multielectrode array system for analysis of networks of cells in tissue slices or cultured cells. Speakers from industry and academia will discuss the development and potential of these new technologies and present experimental results obtained with these systems.

### **Early Career**

#### **Development Panel: Advisor Selection**

Tuesday, March 4, 2003

12:45 – 2:15 PM

The Early Career Committee will sponsor the second annual Career Development Panel, on the topic of selecting a postdoctoral or graduate advisor. The panelists will discuss the duties and responsibilities of advisors, different advisory styles, and advisor/advisee conflict resolution. Audience participation will be encouraged.

Moderator:

*Gisela Beutner*

University of Rochester

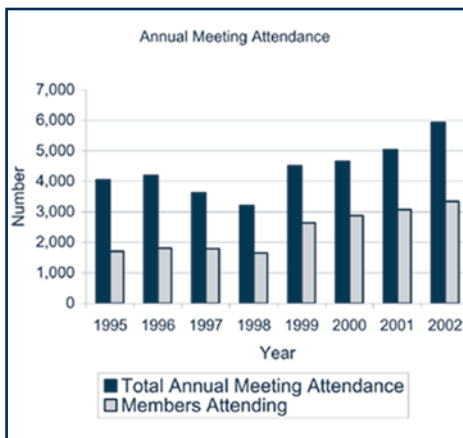
## Membership Report

Members vote on the worth of the Society in several ways besides dues. Among them is with their feet, by attending the Annual Meeting.

And the news is good. Annual meeting attendance continues to grow, as does the number of members who attend. The graph below shows that since 1995, meeting attendance has grown by 32%. Just as important, after a three-year downward trend from 1996 to 1998, attendance has increased in each of the last four years.

### A Society Meeting

Of those who attend, each year more and more are members. While in 1995 only 42% of attendees were Society members, in each subsequent year that number has risen. By 2000 the percentage of attendees who were members was 62%. That number has remained relatively constant,



with 61% in 2001 and 57% in 2002. And while in 1995 only 36% of the Society members attended the annual meeting, that number has steadily increased since 1999. Fifty percent of the total Society membership attended the 2002 meeting.

### An International Meeting

Annual meeting attendance reflects the international makeup of Society membership. In each of the past three years, 26%

of meeting attendees have come from countries outside the US. When analyzing the numbers for the 2002 meeting, it was interesting to discover that that 26% of symposia speakers were also from non US countries.

### Work Ahead

As the Society grows, so does the challenge of the Program Chair and Program Committee to develop a scientific program for the Annual Meeting that encompasses the diversity that is biophysics. It would appear that they've been doing a good job, but the Society will continue to grow and their job will increase in difficulty.

While nearly 60% of attendees are members, there remains nearly 40% who are not. The Membership Committee is looking into ways of attracting these obviously interested scientists to the Society membership. That will be the subject of the Membership Committee's next meeting.

—Catherine Royer,  
Universite Montpellier

## Subgroups

### Biological Fluorescence

The 2002 meeting in San Francisco is just past and we are already preparing for the next meeting in San Antonio. First of all, let me thank you for the great participation in San Francisco. I would like to remind all interested persons to please officially join the Subgroup if you plan to attend the meeting. Of course everyone is welcome to come to our sessions, but the size of the meeting room is connected to the number of subgroup members.

The list of the new speakers for our subgroup includes investigators who have contributed substantially to the development of fluorescence methodologies and applications. This year's list includes *David Piston* of Vanderbilt University, *Joachim Muller* of the

University of Minnesota, *Tom Kerppola* of the University of Michigan, *Kerry Hanson* of the University of Illinois, *David Jameson* of the University of Hawaii, and the winner of the Young Investigator Award who has not yet been named.

Nominations for the Young Investigator award offered by SPEX/Jobin-Ivon must be received before January 1, 2003. Nominations must be sent to me at [enrico@scs.uiuc.edu](mailto:enrico@scs.uiuc.edu) or to my address at Laboratory for Fluorescence Dynamics, 1110 W. Green St, Urbana IL 61801. Nominees must be at a postdoctoral or assistant professor level in their career at the time of the nomination. Nominations from foreign countries are accepted. The selection panel consists of the current and two previous chairs of the fluorescence subgroup.

I am also pleased to announce a major new international award in the field of fluorescence spectroscopy. ISS, Inc. has established a prize called the *Gregorio Weber Award for Excellence in Fluorescence Theory and Applications*. The award is intended to recognize and honor distinguished investigators who gave significant and original contributions to the advancement and applications of fluorescence techniques. Nominees must be senior level researchers with a rank of full professor, lab director or equivalent. The award is named after Professor *Gregorio Weber*, who pioneered the developments in the theory and the application of fluorescence techniques to biology and biochemistry. This award will consist of a plaque and a \$2000 prize. More details concerning this award can be found at the LFD web site at [www.lfd.uiuc.edu](http://www.lfd.uiuc.edu).

I hope everyone interested in the application of modern fluorescence techniques to biophysical research will be able to meet with us in San Antonio in 2003.

—Enrico Gratton  
University of Illinois, Urbana

## Biophysical Society Volunteer Biographical Sketch

*Interested in participating in Society committees and/or governance?  
Volunteer forms received prior to October 3, 2002, will be considered for appointment in 2003.*

I wish to be considered for (indicate office): \_\_\_\_\_

I am interested in serving on the following committee(s): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Full name: \_\_\_\_\_

Highest degree: \_\_\_\_\_ Year received: \_\_\_\_\_

Discipline/Field: \_\_\_\_\_

Institution where degree was received: \_\_\_\_\_

Present title/department/institution: \_\_\_\_\_

Research interests and experience: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Previous Biophysical Society experience (Officer, Executive Board, Council, Editor, Committee Chair or member, Subgroup Chair, etc.):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

My reason for running for this office or serving on this committee is: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Mail completed form to:  
Secretary Biophysical Society 9650 Rockville Pike, Bethesda, MD 20814-3998

## Public Affairs

### Department of Homeland Security

The President announced plans for a proposed Cabinet level Secretary in the new Department for Homeland Security (DHS). This new federal agency would have a great deal of public health research funding associated with it, but would coordinate with the Department of Health and Human Services on issues relating to bioterrorism and other health matters.

While the full function and jurisdiction of the DHS is still unknown, many of the efforts relating to counter terrorism and public health will likely be initiated from the new department. The bill introducing the DHS states that “with respect to any responsibilities carried out through [HHS] under this subsection, the Secretary, in consultation with the Secretary of [HHS], shall have the authority to establish the research and development program, including the setting of priorities.”

Leaders of both parties held a press conference with Homeland Security Director *Tom Ridge* on June 18, stating that they hope to have the bill passed in both Houses before September 11, 2002.

### NSF Update

“Investing in America’s Future Act of 2002” (H.R. 4664), was passed in early June and authorizes an increase in the NSF budget from \$4.8 billion in 2002 to \$7.3 billion in 2005. H.R. 4664 puts NSF on track to double its budget in five years.

Among the bipartisan group co-sponsoring the bill were the Chairman and Ranking Minority Member of the

House Science Committee, *Sherwood Boehlert* (R-NY) and *Ralph Hall* (D-TX). In a speech on the House floor Boehlert stressed the importance of the NSF reauthorization, claiming that important research and development in science and technology were funded through this often overlooked federal agency.

He added that although the NIH has been on a five-year doubling effort, reaping tremendous advances in biomedical research for the nation, his colleagues must recognize that “health research is not the only kind of research on which our nation depends..... advances that produce new research tools and new understandings of chemistry and physics,” are equally important. He argued that the NSF’s leadership in the funding and study of nanotechnology, information technology, and education systems were vital to the nation’s security and prosperity. Boehlert also stressed that along with the budget increase there will be improved management procedures and agreements that will facilitate the funding and research opportunities.

Following shortly on the efforts of the House, the Senate Health, Education, Labor and Pensions Committee held a hearing on the NSF Reauthorization on June 18. Witnesses to the Committee were NSF Director *Rita Colwell*, former Senator *John Glenn* and *Keith Verner* of Penn State University School of Medicine. Senators sitting in on the hearing included *Barbara Mikulski* (D-MD) and *Christopher Bond* (R-MO) who lead the VA/HUD Committee under which the NSF is funded. Mikulski said that she and Bond were “deeply committed to doubling the NSF’s budget.”

Later in the hearing, Glenn, now chair of The John Glenn Institute for

Public Service and Public Policy, testified that a national increase in the training of math and science teachers was essential for the United States. Currently, American high school students are about two years behind their peers in Japan and Germany, Glenn said. Senator *James Jeffords* (I-VT), said he was “ashamed” about this and asked NSF Director Colwell to conduct a study comparing the U.S. educational system with other countries.

The graphs on page 15 show the breakdown in the NSF 2002 budget compared to the requested 2003 budget.

### Nanotechnology Funding

In related news, the National Academies of Science’s National Research Council recently recommended a presidential grant that would increase inter-agency collaborations in the National Nanotech Initiative (NNI). The grants would be awarded “exclusively to fund meaningful interagency collaborations that would cross mission boundaries,” specifically in the NIH, Department of Energy and the National Science Foundation.

To strengthen the initiative the NRC asked the NNI to increase federal support for long-range research. The NRC also asked the OSTP to develop an independent standing nanoscience and nanotechnology board to guide the NSET on “research investment policy, strategy, program goals and management processes.” The NRC added that this advisory board “could identify and champion research opportunities that do not conveniently fit within any single agency’s mission.”

The NRC commented that NSET, a subcommittee of the National Science and Technology Council, should build

on the interagency partnerships with the co-funding of large programs. These would include collaborations in instrumental centers and investigator teams working on the parameters between disciplines as well as hiring program directors with interdisciplinary experience.

Approximately \$1 billion has been set aside for nanoscale research since FY 01, and the Bush administration has requested \$710 million for federal nanoscience, engineering and technology for FY 03, resulting in a 17% increase over the present figure.

## NIH Director Fredrickson Mourned

*Donald Fredrickson*, NIH Director from 1975 to 1980, died on June 7. He was 77 years old. Hailing from Canon City, Colorado, Fredrickson was internationally known as an expert on lipid metabolism and its disorders. Upon taking the mantle at the NIH, he was thrust into the controversy over recombinant DNA. It was his job to continue the research at the NIH while shielding the Administration from blame and maintaining balance with Congress and the general public over the moratorium of its use. Later, in 1980, Fredrickson gathered public health advocacy groups together to fight Congress—effectively ending his own public service career—by arguing against the elimination of Section 301 of the Public Health Service Act. This law provides for perpetual authorization of the NIH, assuring its continued funding since 1944, making it possible for the NIH to not be concerned with funding that might end because of lack of Congressional committee review. He resigned over the issue, but not before securing the NIH's financial future.

<b>NSF Funding by Priority Area (Dollars in Millions)</b>			
	<b>FY 2002 Current Plan</b>	<b>FY 2003 Request</b>	<b>Percent Change</b>
<b>Research and Related Activities</b>	3,598.64	3,783.21	5.1 %
<b>Education and Human Resources</b>	875.00	908.08	3.8 %
<b>Major Research Equipment &amp; Facilities Construction</b>	138.80	126.28	-9.0 %
<b>Salaries and Expenses</b>	176.40	210.16	19.1 %
<b>Office of Inspector General</b>	7.04	8.06	14.5 %
<b>Total, NSF</b>	\$4,795.88	\$5,035.79	5.0 %

<b>NSF Budget by Strategic Goal (Dollars in Millions)</b>			
	<b>FY 2001 Actual</b>	<b>FY 2002 Estimate</b>	<b>FY 2003 Estimate</b>
<b>People</b>	894.29	993.50	1086.70
<b>Ideas</b>	2,296.87	2,431.07	2,559.44
<b>Tools</b>	1,054.99	1,144.62	1,121.50
<b>Administration and Management</b>	13.72	226.68	268.14
<b>Total, NSF</b>	\$4,459.87	\$4,795.88	\$5,035.79

<b>NSF Funding by Priority Area (Dollars in Millions)</b>			
<b>Priority Area</b>	<b>FY 2002 Current Plan</b>	<b>FY 2003 Request</b>	<b>Percent Change</b>
<b>Biocomplexity in the Environment</b>	58.10	79.20	36.3 %
<b>Information Technology Research</b>	277.52	285.83	3.0 %
<b>Nanoscale Science and Engineering</b>	198.71	221.25	11.3 %
<b>Learning for the 21st Century Workforce</b>	144.82	184.69	27.5 %
<b>Mathematical Sciences</b>	30.00	60.09	100.3 %
<b>Social, Behavioral and Economic Sciences</b>	0.00	10.00	NA
<b>Total, Priority Areas</b>	\$709.15	\$841.06	18.6 %

## Upcoming Events

September 22–26, 2002

*Society for Biomolecular Screening*  
*8th Annual Conference and Exhibition: High Information*  
*Contact Screening*  
Netherlands Congress Center, The Hague,  
The Netherlands  
[email@sbsonline.org](mailto:email@sbsonline.org); [www.sbsonline.org](http://www.sbsonline.org)

September 26–29, 2002

*Society for Advancement of Chicanos and Native Americans*  
*in Science National Conference*  
Anaheim, CA  
[info@sacnas.org](mailto:info@sacnas.org); [www.sacnas.org](http://www.sacnas.org)

September 30, 2002

*IBC USA Conferences, Inc.*  
*Well Characterized Biologicals*  
Bethesda Marriott Hotel, Bethesda, MD  
[www.LifeSciencesInfo.com/WCB/?source=2757-8](http://www.LifeSciencesInfo.com/WCB/?source=2757-8)

October 17–18, 2002

*Northwest Symposium on Systems Biology*  
Pacific Northwest National Laboratory, Washington  
<http://www.pnl.gov/northwestsymposium/>

January 13–16, 2003

*Biophotonics: A 4-Day Course and Workshop for Researchers*  
*from Biotechnology and Academia*  
East–West Center, Manoa Valley, Hawaii  
<http://www.physiology.wisc.edu/marriott/seminar03/>



9650 Rockville Pike  
Bethesda, Maryland 20814-3998

Non-Profit Org. U.S. Postage PAID Bethesda, MD Permit No. 5460
--