



## NEWSLETTER

September/October 2001

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### Career Development Committee

The newly formed Career Development Committee (CDC) held its first meeting last month in Bethesda. The CDC is the umbrella organization under which fall the International Affairs Committee, Education Committee, Minority Affairs Committee, Early Career Committee, CPOW, and Membership Committee.

The CDC will interface with its subcommittees and allow for better coordination of Society events and activities among the committees. It will also address human resource issues that are common to all its subcommittees.

*Jackie Tanaka* chaired this first meeting, which was attended by *Ligia Toro de Stefani, Patricia Clark, Suzanne Scarlatta, Mary Barkley, Ro Kampman, and Cathy Kenney*.

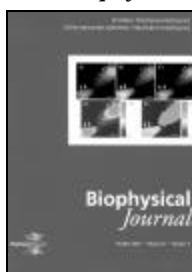
Among the Committee's decisions were to add features to the Newsletter, which address mentoring and career issues. Some new features will be a career advice column, short profiles of members,

and international meetings announcements.

The CDC also focused on the Society website and how to make better use of the web technology. Recently the Society web site was updated (additional information on page 3) and individual web pages will be created for each of the committees and subgroups. —

### Biophysical Journal Initiates Online Manuscript Submission and Peer Review

As of September 5, 2001, *Biophysical Journal* has been accepting manuscripts online at <http://submit.biophysj.org>. Submission instructions are available at the site or at <http://www.biophysj.org/misc/ifora.shtml>



Prior to submitting papers online, authors should visit <http://submit.biophysj.org/cgi/> to create a new account. —

### 46th Annual Meeting

February 23-27, 2002

San Francisco, California

Updates:

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

Abstract deadline :  
October 7, 2001

Preregistration deadline:  
December 7, 2001

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## Biophysical Society Receives Two Gold Ink Awards

Two of the Biophysical Society's annual publications, the *2000 Directory of Members* and the *45th Annual Meeting Program*, have been awarded the Gold



Ink Award in the Pewter Category. For over a decade, the Gold Ink Award has been considered the nation's most prestigious competition in print publications.

The Biophysical Society publications were among over 2,000 entries submitted by organizations throughout the United States.

This is the second consecutive year the Award has been awarded to the Society. The *1999 Directory of Members* was also a Pewter Award winner. ■



# COMMITTEES

## International Affairs

Below are several meetings of interest to members of the Biophysical Society.

### International Workshop on Spectroscopy for Biology

University of São Paulo  
Institute of Chemistry,  
Main Campus  
October 7–12, 2001

The Workshop is associated with the International Congress of Biophysics, which will be held by the International Union of Pure and Applied Biophysics from April 27 to May 2, 2002, in Buenos Aires, Argentina.

The Workshop will focus on spectroscopic and other physical techniques. The use of such techniques for the understanding of structural and dynamic properties of biomolecules is an important contemporary focus, not only from the point of view of basic science but also for the understanding of the molecular mechanisms of diseases and for rational drug design.

The purpose of the workshop is to create an opportunity for Latin American researchers to learn these techniques, to meet one another, and to establish collaborations. The lectures will introduce the methods in a pedagogical manner, and then demonstrate their utility with research applications. Some fellowship awards are available to Latin American scientists.

Contact: **Shirley Schreier**, Professor of Biochemistry at [schreier@iq.usp.br](mailto:schreier@iq.usp.br)

### An International Workshop Ionic Channels: From Structure to Physiopathology

Colima, Mexico  
November 25–28, 2001

Abstract deadline: October 31  
Registration fee \$ 50 U.S. DLLs.

#### Speakers:

**Franco Conti**, Instituto di Cibernetica e Biofisica, CNR, *Blockers as probes for gating and permeation of ion channels.*

**Robert J. French**, University of Calgary, *Structure and function of sodium channels in health and disease.*

**María L. García**, Merck Research Laboratories, *The role of the voltage-gated potassium channel Kv1.3 in human T-cells: a target for immune suppression.*

**Steven C. Hebert**, Yale University, *The KATP inward rectifier K channels—molecular determinants of the interactions of ATP and PIP2.*

**Colin G. Nichols**, Washington University, *ATP channels: From molecular mechanisms to human diseases.*

**Enrico Stefani**, University of California, Los Angeles, *Hormonal regulation of ion channels.*

**Michael M. Tamkun**, Colorado State University, *Ion channel targeting to lipid rafts; a new mechanism for compartmentalization.*

**Ligia Toro**, University of California, Los Angeles, *Biology of MaxiK channels and senescence.*

For more information contact

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—**Ligia Toro de Stefani**, UCLA

## Education

### Biophysical Textbook Online Update

#### Membranes

**Steven White**

(related web resources)

*Membrane Protein Explorer*  
*Membrane Protein Topology Database (MPtopo)*

#### NMR

**J.T. Gerig**

(chapter update)

*Fluorine-19 NMR*

We encourage suggestions for good educational materials, and would welcome your ideas for continuing to develop the BTOL into a major resource for biophysics education.

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

## Biophysical Society Unveils New Web Site



The Biophysical Society is pleased to announce a revamped web site. Updates and changes to the site will be ongoing; visit the site at <http://www.biophysics.org> and send your comments to [dmcgavin@biophysics.org](mailto:dmcgavin@biophysics.org)

Please make sure to update your bookmark in your browser to point to the new location. We welcome your feedback on the new site.

## Early Careers

### Negotiating the Transition from Postdoc to Faculty

I am a member of the Biophysical Society Early Careers Committee and am currently undergoing the transition from a senior postdoc to a junior faculty position. I feel that I have been lucky in many respects. First, I have learned a great deal about the transition through observation and discussion with people who are at different stages of their academic careers. Second, I have had some fabulous advisors who have been very knowledgeable about grant writing, reviewing, job applications, interviews and the negotiation process. These people have been very honest and straightforward in what I should expect. As we move into the annual season for academic job searches, I would like to offer some of my thoughts and opinions on the process of becoming a junior faculty member in an academic setting.

The transition from postdoc to faculty begins at the pre-doctoral level, when an individual is learning what options are available as career

choices, and how to best obtain the position that is ultimately desired. For instance, the path to an industrial/pharmaceutical position may be quite different than the path to an academic position. Understanding what is necessary to become a marketable individual for a faculty position may affect one's decisions in terms of choosing a postdoc position, the type of research and the laboratory setting. There are some caveats to certain areas and techniques of research. For instance, I am primarily

an electrophysiologist and, having been at a single postdoc position for 8 years, I am now considered trained and ready for continuation to a faculty position. For other fields, however, this length of time might be considered outrageously prolonged. From observations of my peers during the last number of years, I suspect that if they had understood in advance what is required to become marketable for a faculty position, they may have made different decisions regarding the research or the lab that they chose for their postdoctoral training.

In many fields, an important aspect of choosing a postdoctoral laboratory involves choosing a mentor who will allow a postdoc to develop his or her own transportable research program.

Having a research project of one's own makes writing and obtaining extramural grant support that much

more accessible. I strongly feel that the best time to learn how to write funding proposals is during the postdoctoral years. Furthermore, these are the years that the mentor can provide advice and impart knowledge

of the grant review process, frequently from first-hand experience. During this time, however, it should (hopefully) not be absolutely required that a postdoc have his or her own grant or fellowship in order to conduct research in the laboratory. Even if an externally funded grant or fellowship is not obtained during the postdoc years, going through the thought and learning experience of the application process will make an individual that much more fundable as a beginning

junior faculty. I know that non-United States citizen postdocs have a more difficult time with this, but there are many grants available for doing research in this country that are funded by either private foundations or by country-sponsored programs.

When beginning to look for faculty positions, an individual should have a good idea of the type of position that interests them most. I knew I was interested in predominantly research positions, but I love to teach so I

wanted that opportunity, but not exclusively. After deciding what type of place and position I wanted to be in ultimately, I cast a wide net within that particular

academic setting. When applying for jobs, I found it very helpful to know what a search committee typically considers in an application. My current department has conducted several searches over the last few years for a variety of people doing many types of research. I asked the faculty on the search committee what, in their opinion, was considered a good application. I spoke with my friends who successfully obtained jobs in a research setting similar to what I was considering. Many of these people shared their written examples of research interests and curriculum vitae. From these conversations and examples, I learned how to assemble the application package. I learned what should appear in a CV and how to write a statement of teaching philosophy. I asked a number of faculty who sit on search committees to read and critically evaluate my research directions page and teaching statements, which I then updated through

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**“...an important aspect of choosing a postdoctoral laboratory involves choosing a mentor who will allow a postdoc to develop his or her own transportable research program.”**

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**“The transition from postdoc to faculty begins at the pre-doctoral level, when an individual is learning what options are available as career choices.”**

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the months as experiments and data progressed. In addition, I always wrote each cover letter specifically for the particular advertisement, naming the department and the position, including a very brief and concise summary of my research interests and techniques with one or two of the key phrases from the job advertisement. Regardless of whether letters of recommendation were requested, I had three sent for each application from those mentors with whom I have worked most closely. As a courtesy to those who graciously agreed to write letters on my behalf, I emailed each individual the request for the next few letters of recommendation and attached a document file with each of the addresses so that it was simple for them to cut-and-paste an address into each recommendation letter.

Then there is the interview. Remember that this interview is a two-way street. Not only is the department/institute interviewing a candidate, but also the candidate should be interviewing the department to determine whether they are able to provide a productive work environment. Again, I turned to friends who had recently (and successfully) been through the process. I had discussions with each of them about how and what an applicant should be prepared for during an interview. The topics ranged from clothes to wear, good and appropriate questions for the candidate to be asking faculty, how much the candidate should know about the place and the people that they are speaking with, and so on. My best advice is to think like a junior faculty before visiting a department. What do you as an individual need as a junior faculty to become a successful senior faculty, and will that

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**“... I turned to friends who had recently (and successfully) been through the process.”**

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school/department/chairman/ director provide what is needed?

The negotiation and decision process is perhaps the most difficult and stressful. It is the time that each small decision can have long-term ramifications. Again, I turned to friends and I talked to department chairs in my university regarding how the negotiation proceeds, what typical startup packages include, how to make a list of equipment, space allocations, salary, etc. The "Transition of Postdoc to Faculty" session at the 2001 Biophysical Society Annual Meeting in Boston was very helpful for me in terms of what to consider as a junior faculty. Topics discussed included the value of an active mentoring program, reasonable teaching loads both initially and

ultimately, external funding expectations and the percent of salary recovery. At each institution there are major differences in what is necessary to successfully gain tenure, and these requirements should be spelled out during the interview process well before the job candidate makes any final decision.

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**“My best advice is to think like a junior faculty before visiting a department.”**

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I understand that the most difficult time of an academic science career is the beginning of a junior faculty position. I am looking forward to the challenge, and hope that the points discussed here will help others in their transitions from a postdoctoral position to an independent junior faculty position. —

— *Amy Harkins*, University of Chicago

## Minority Affairs Committee (MAC) Update

Two of the goals of our committee are to recruit talented minority students to enter biophysics and to increase the retention of young minority biophysicists within the biophysical community. For the past several years, the Society and the MARC program have funded awards for minority students and their faculty mentors to attend the Annual Meeting. In just the past two years, 49 MARC attendees were supported and of those, ~ 70% presented abstracts. This statistic is quite remarkable since many of the students are still undergraduates. This year we hope to continue the trend with contributing support from the FASEB/MARC program and we encourage all minority students to apply for this award. Applications are in the Call for Papers.

In the past, the MAC sponsored a Sunday morning breakfast for the MARC attendees where the students met each other as well as mentors who were available to help the students plan their participation in the Annual Meeting. This opportunity is highly valued by the young biophysicists because it gives them an opportunity to network among their peers and it introduces them to senior members of the Society in an informal setting. The problem is that Sunday morning is filled with other exciting activities, which limits the time many can spend at the breakfast. To solve the time problem, we have decided to jointly sponsor with the Education Committee a dinner on Saturday night for MARC and under-

graduate travel awardees. We will begin with a roundtable discussion with members of the Society on various career-type issues. Following dinner, students will have the opportunity to socialize together until the wee hours.

Last year, University of Maryland and Princeton University sent representatives to the Annual Meeting in order to advertise their summer programs for minority students. The representatives attended the Sunday breakfast and talked with the MARC students. We think this is an excellent way to advertise summer programs and recruit talented undergraduates. If you are interested in advertising a program at your University, please contact the MAC before the meeting. Additionally, we would like to expand the Placement service to provide an opportunity for undergraduate students to apply for summer internship opportunities. We anticipate that Undergraduate Research Opportunities will be registered through the Placement Service and interested students (employee) and faculty (employer) will interview during the meeting in the same way that Postdoctoral fellows interview. If you are interested in providing a summer research opportunity for an undergraduate, see the Placement Service on-line registration.

The MAC is developing links with other societies to provide information to minority students about biophysics. This year the National Society for Black Physicists had a Symposium devoted to topics in Biophysics and we plan next year to develop a biophysical component for the Society for Advancement of Native American and Chicanos in

Science (SACNAS). **Paul Adams** of MAC will attend the SACNAS meeting in September, and he will be involved in the planning of a biophysics component for the 2002 conference. If you are interested in being involved or have suggestions for a program topic, please contact a member of MAC. ■

—*Jackie Tanaka*, MAC Chair

## Society Office



*Patricia Hayes*

**Patricia Hayes** has joined the Society Office staff as Accountant. She replaces **Joan Himmelhoch**, who has retired after three years with the Society.

Prior to joining the Society, Hayes was a business manager for an environmental advocacy program.

## Subgroup Programs

### Bioenergetics

#### *Morning Symposium* Structure, Function, and Evolution of Channels and Transporters

*Hartmut Wohlrab*, Boston  
Biomedical Research Institute;  
*Bridgette Barry*, University of  
Minnesota, Co-chairs

#### FT-IR Spectroscopic Studies of a Symporter, the Lactose Permease, *Bridgette Barry*, University of Minnesota

#### Trapping the Transition State of an ABC Transporter: Evidence for a Concerted Mechanism of Action, *Amy Davidson*, Baylor College of Medicine

#### Structure of a Glycerol-conduct- ing Channel and the Basis for its Selectivity, *Robert Stroud*, University of California, San Francisco

#### High resolution analysis of con- duction through potassium chan- nels, *Roderick MacKinnon*, HHMI and Rockefeller University

#### Bioinformatic Approaches Leading to an Understanding of the Evolution of Transport Systems, *Milton Saier*, University of California, San Diego

#### *Afternoon Symposium* Calcium Signaling and Mitochondria, *Gyorgy Hajnoczky*, Thomas Jefferson University, Chair

#### Propagation of Cytosolic Calcium Signals to the Mitochondria, *Rosario Rizzuto*, University of Ferrara

#### Interplay between Cytosolic and Mitochondrial Calcium Signaling, *Andrew P. Thomas*, UMDNJ, Newark

#### Switch between Life and Death Pathways of Mitochondrial Calcium Signaling, *Gyorgy Hajnoczky*, Thomas Jefferson University

#### Calcium Overload, Mitochondria and Cell Death, *Michael R. Duchen*, University of London

#### Calcium and Cell Death in Liver, *John J. Lemasters*, University of North Carolina, Chapel Hill

### Biological Fluorescence

Program information to be  
announced.

### Membrane Biophysics

#### Molecular Motions Underlying Ion Channel Gating *Robert French*, University of Calgary, Chair

The session is being planned to  
include interactive discussions of sev-  
eral current issues.

Presenters/provocateurs will include  
the following:  
*Francisco Bezanilla*, UCLA  
Title to be Announced.

*Eric Gouaux*, Columbia University  
Title to be Announced.

*Richard Horn*, Thomas Jefferson  
Medical College, Title to be  
Announced.

*Peter Tieleman*, University of Calgary,  
Title to be Announced.

*Gary Yellen*, Harvard Medical School,  
Title to be Announced.

### Nominations for the K.S. Cole Award

The subgroup welcomes nominations  
for the K.S. Cole award. The dead-  
line for nominations is November 1,  
2001. If you would like to nominate  
a candidate for the K.S. Cole Award,  
please send the nomination to a  
member of the Advisory Committee:  
*Bob French*, University of Calgary  
*Bill Wonderlin*, West Virginia  
University  
*Barbara Ehrlich*, Yale University  
*Lynne Quarmby*, Simon Fraser  
University  
*David Dawson*, Oregon Health  
Sciences University  
*Sarah Garber*, FUHS / The Chicago  
Medical School

### Membrane Structure & Assembly

#### Membrane Protein Folding and Function, *Paul Axelsen*, University of Pennsylvania, Chair

#### Rhodopsin Structural Stabilization Studies, *Arlene Albert*, University of Connecticut

#### Stable Membrane Proteins for Structure Determination, *James U. Bowie*, UCLA

(Continued on page 8.)

(continued from page 7.)

**How Membrane Lipid Interactions Regulate the Activity of Cytidylyltransferase,** *Rosemary Cornell*, Simon Fraser University

**Lipids as Conformational and Topological Determinants of Membrane Protein Structure,** *William Dowhan*, University of Texas, Houston

**Chemical Principles of Membrane Protein Folding and Stability,** *Don Engelman*, Yale University

**Energetics, Stability, and Prediction of Transmembrane Helices,** *Sajith Jayasinghe*, University of California, Irvine

**Membrane—mediated Amyloidogenesis,** *Vishwanath Koppaka*, University of Pennsylvania

**Folding and Misfolding of Diacylglycerol Kinase**  
*Charles Sanders*  
Case Western Reserve University

### Science-Education Proposal Funding

Did you realize that there are a large number of educational funding programs for biophysics? At the next Annual Meeting the Education Committee will be hosting a forum on sources of funding that are available for science education. A workshop to help PIs write education-related proposals will be included. For more information, please contact Suzanne Scarlata, [suzanne@dualphy.pnb.sunysb.edu](mailto:suzanne@dualphy.pnb.sunysb.edu)

**Membrane Protein Folding—What's the Problem?,** *Lukas Tamm*, University of Virginia

**Promiscuity and Specificity in the Folding of Beta-Sheets in Membranes,** *William C. Wimley*, Tulane University

**Molecular Biophysics Unraveling the Coupled Equilibria in Regulation of Transcription Initiation,** *Dorothy Beckett*, University of Maryland College Park, Chair

**Speakers**  
*Craig Martin*, Department of Chemistry, University of Massachusetts

*Catherine Royer*, Centre de Biochimie Structurale, University of Montpellier

*Thomas Kerpolla*, HHMI, Department of Biological Chemistry, University of Michigan School of Medicine

*Dorothy Beckett*, Department of Chemistry & Biochemistry, University of Maryland College Park

### Motility

*Thomas Irving*, Illinois Institute of Technology, Chair  
Program information to be announced.

### Self-Assembled Sessions

Again this year there will be the opportunity to organize self-assembled sessions. If you are in organizing a self-assembled platform session on a specific topic or theme for the 2002 Biophysical Society Meeting, submit the title of your session, chair of the session, your proposed list of speakers and the titles of each of their abstracts to the Society office ([society@biophysics.org](mailto:society@biophysics.org)) by October 1, 2001. All abstracts must be submitted by October 7, 2001, at <http://www.miracd.com/biophysics2002/>. Each proposed self-assembled session will then need to be approved by the Program Committee before inclusion in the program.

### Special Annual Meeting Travel Rates

The Biophysical Society has made special arrangements with [United Airlines](#) and [Hertz Car Rental](#) for special rates to meeting attendees. When making reservations, refer to the respective meeting ID numbers for extra savings.

 UNITED

Meeting ID Code: 549WB



Meeting CV#:022R0361

# Call for Nominations for 2003 Awards

**Deadline for all Nominations: February 21, 2002**

**Recipients will be honored at the 2003 Annual Meeting in San Antonio.**

The Biophysical Society Awards Committee solicits nominees for the Michael and Kate Bárány Award for Young Investigators, the Distinguished Service Award, the Founders Award, Emily M. Gray Award, Avanti Award, and the Fellows of the Biophysical Society Award. Descriptions of the awards and criteria for nominations follow.

## **Avanti Award in Lipids**

Avanti Polar Lipids, Incorporated has established an annual award to be given by the Biophysical Society. The award will be given to an investigator for outstanding contributions to our understanding of lipid biophysics.

1. Nominees must have made important and well recognized contributions to an understanding of lipid biophysics, including but not necessarily limited to the metabolism, enzymology, structure, or function of lipids or lipid membranes.

2. Nominees must not have received an Avanti Award in any prior year and may not nominate themselves.

3. Nominations must be made by a member in good standing of the Biophysical Society by October 1 of each year, and must include the following:

a) A letter from the nominator, no longer than two pages in length, supporting the candidacy of the nominee and highlighting specific publications deemed representative or especially worthy of recognition.

b) Two supporting letters from other Society members.

c) A letter accepting nomination and a curriculum vitae from the nominee.

4. Nominees may be of any nationality or academic rank, and may be affiliated with nonacademic institutions provided that the work for which they are to be recognized has been published in recognized scholarly journals. The winner receives \$2,500.

## **Michael and Kate Bárány Award for Young Investigators**

The Young Investigator Award was established by the Biophysical Society in 1992. In recognition of the endowment gift from Michael and Kate Bárány, the award was renamed in 1998. The award is for outstanding contribution to biophysics by a person who has not achieved the rank of full professor at the time of nomination. The winner receives a \$2,000 award.

Nomination packets should include a letter summarizing the nominee's qualifications for the award, two seconding letters and the nominee's curriculum vitae.

## **Distinguished Service Award**

The award, established by the Biophysical Society in 1991, is intended to honor service in the field of biophysics. The award is for contributions beyond achievements in research. The recipient receives a \$1,000 award.

The nominator's letter and two seconding letters should discuss the rationale for making the award.

## **Founders Award**

The award was established by the Society to recognize outstanding achievement in any area of biophysics. The award of \$1,000 is made annually. One test of significance is the acceptance and use of the advance by others in the field, either promptly or over a period of years.

Nomination packets should include a letter summarizing the nominee's qualifications for the award, two seconding

letters, and the nominee's curriculum vitae.

## **The Emily M. Gray Lecture**

The Emily M. Gray Lecture is the keynote presentation at the Student Symposium at the Annual Meeting. This lecture is presented annually by a member of the Society who is judged to have made significant contributions to education in biophysics whether by teaching, developing novel educational methods or materials, promoting scientific outreach efforts to the public or to youth, generating a track record of attracting new students to the field of biophysics, or by otherwise fostering an environment exceptionally conducive to education in biophysics. The winner receives a \$200 monetary award and commemorative object. Nomination packets should include a letter summarizing the nominee's qualifications for the award, two seconding letters, and the nominee's curriculum vitae focusing on educational and teaching contributions.

## **Fellow of the Biophysical Society**

This award is designed to honor the Society's distinguished members who have demonstrated excellence in science and to the expansion of the field of biophysics. Fellows will be recognized at the Annual Awards Ceremony and will be identified in the annual Directory of Members and in the *Biophysical Journal*.

Nomination packets should include a letter summarizing the nominee's qualifications, two supporting letters, and the nominee's curriculum vitae.

# The Biophysical Discussions

## *Frontiers in Structural Cell Biology: How Can We Determine the Structures of Large Subcellular Machines at Atomic Resolution?*

Asilomar, California  
April 29 2002–April 22, 2002

Wine and Cheese Reception: Friday 8:00 PM, April 19  
Sessions Begin: Saturday 9:00 AM, April 20  
Sessions End: Monday 12:00 NOON, April 22

### Organizing Committee:

*Axel Brunger*, Stanford University  
*David DeRosier*, Brandeis University  
*Stephen Harrison*, Harvard University  
*Eva Nogales*, University of California, Berkeley

### The presenters and discussion chairs include:

*Richard Henderson*, MRC-Laboratory of Molecular Biology  
*Jamie Cate*, University of California, Berkeley  
*Joachim Frank*, SUNY-Albany  
*Helen Saibel*, Birkbeck College  
*Keith Hodgson*, Stanford University  
*Andrew Thompson*, EMBL-Grenoble  
*Janos Hajdu*, Uppsala University  
*Randy Read*, University of Cambridge  
*Axel Brunger*, Stanford University  
*Don Wiley*, Harvard University  
*Bob Glaeser*, University of California, Berkeley  
*Niko Grigorieff*, Brandeis University  
*Ken Downing*, Lawrence Berkeley Laboratory  
*Wolfgang Baumeister*, Max-Planck Institute-Martinsried  
*Eva Nogales*, University of California, Berkeley  
*Niels Volkmann*, Burnham Institute  
*Willy Wriggers*, Scripps Research Institute

Presenters at the meeting are preparing papers. These will be distributed to participants for study so that presentation time is reduced to 5-10 minutes and discussion is increased. The entire meeting will be taped and made available on the web.

The Biophysical Discussions will bring together a wide-ranging group of scientists interested in extending and inventing methods for determining, refining and verifying the atomic structures of cellular machinery. The emphasis of the meeting is on discussion, not formal presentations. The goal is to generate and explore new ideas, to generate interest in pursuing them, and to forge new alliances to bring these ideas to fruition. The emphasis will be on electron cryo-microscopy and x-ray crystallography. The topics include: the current state of affairs for studying big structures, prospects for ever larger structures by x-ray crystallography, prospects for larger structures and higher resolution by electron cryomicroscopy, new ways for producing specimens of larger structures, and hybrid methods to achieve atomic resolution. The space at the meeting is limited. Below are instructions for those interested in attending the meeting.

- Those interested in attending this meeting must apply. Space is limited. If there are more applications than spaces, available acceptances will be restricted.
- Applications must be sent by email to **discussions@biophysics.org**. Please include Name, Address, Affiliation, Title, and area of research interest. Posters are encouraged. If you wish to include a poster, please send an abstract including title, authors, affiliations, and summary. (Abstracts have a limit of 1420 characters in all—no figures, graphs, etc. Send as e-mail attachment with application.)
- Deadline for applications and poster submission: **November 15, 2001**. Registration fees and room and board will be required from successful applicants.
- The registration fee for the meeting will be \$275. Room costs average \$115 per night.
- Successful applicants will be notified by December 15.

At the meeting, some of the posters may be selected for short oral presentations as happens, for example, at the CryoEM Gordon Conference.

Applications: **discussions@biophysics.org**  
Application Deadline: November 15, 2001

## Terrorists' Attack Unites Congress

As the nation mourns the loss of thousands, one consequence is evident: this national tragedy has united the partisan Congress in historic fashion and has put off discussion of domestic funding issues.

When asked about the Congressional schedule, Senator **Byron Dorgan** (D-ND) said, "Everything's a lower priority, all the other little issues seem less important to debate." Adding to the sense of unity, Senator **John Breaux** (D-LA) stated that the "political arguments of Monday and last week are dead."

Immediately after the World Trade Center buildings were attacked, the House of Representatives convened, said a prayer and adjourned. For several days, Members of Congress

worked together in a rare display of consensus and civility. Canceling the regular schedule of hearings, debates and committee activities, Congress and **President Bush** put the full weight of the Federal government behind efforts to send immediate relief funding for the victims. While news coverage evaluated the destruction, Members of Congress took to the floors of the House and Senate condemning terrorism and passed historic concurrent resolutions regarding assistance for children and families, improved defense, and heightened national security. Their ultimate goal was to attempt to return to a normal routine as soon as possible; although all were certain that the way business was conducted in this country has forever changed.

Throughout the days following the attack, Members of Congress agreed

that traditional funding priorities, pet projects, and sacred federal accounts like the Social Security surplus could be shifted with little effort to pay for the pending \$40 billion emergency aid bill. On September 14, that bill passed both Houses of Congress and at the time this newsletter went to press was on its way to the President to be signed into law. \$20 billion was designated for domestic relief and \$20 billion, referred to as the war powers, was earmarked for terrorist reform activities.

Before the attacks, Congress was engaged in the rather partisan debate over the shrinking surplus and the President's domestic spending agenda. It was widely believed that a Continuing Resolution (CR) would have to be passed, as the federal government's fiscal year ends September 30, because nine Appropriations bills were still unfunded. Most Congressional observers believed that Congress would be in session until Thanksgiving. However, under the current situation, most Members of Congress feel that passing the emergency aid supplemental appropriation measure was their only priority. The remaining Appropriations bills will probably be passed in early October. Capitol Hill experts caution that future funding may be in jeopardy, including Labor/HHS, which funds the NIH, and other major appropriations bills.

Finally, in an unexpected move, House Majority Whip **Tom DeLay** (R-TX) dropped his opposition to the United States' payment of United Nations rear dues. DeLay told reporters that he "is not going to be obstructionist to the president" during this national crisis as Bush attempts to create an interna-

### FY 2002 Science Appropriations Status \*

\$ in thousands								
	FY 2001	%FY 2001	FY 2002 President's Request	%FY 2001	FY 2002 House Action	%FY 2001	FY 2002 Senate Action	%FY 2001
National Institutes of Health	\$20,312,735	16.7%	\$23,112,000	13.8%				
National Science Foundation (NSF) Total	\$4,426,122	15.2%	\$4,472,520	1.0%	\$4,840,160 HR 2620 H.Rept 107-159	9.4%	\$4,672,520 S 1216 S.Rept 107-43	5.6%
NSF Research and Related Activities	\$3,350,000		\$3,326,981	-0.7%	\$3,642,340*	8.7%	\$3,514,000	4.9%
VA Medical and Prosthetics Research	\$351,000	12.5%	\$360,237	2.6%	\$371,000 HR 2620 H.Rept 107-159	5.7%	\$390,000 S 1216 S.Rept 107-43	11.1%
Department of Energy: Office of Science	\$3,180,341	15.0%	\$3,159,890	-0.6%	\$3,166,395 HR 2311 H.Rept 107-112	-0.4%	\$3,268,116 S 1171 S.Rept 107-39	2.8%
DOE Basic Energy Sciences	\$1,013,370		\$1,000,000	-1.3%	\$1,006,705	-0.7%	\$1,040,705	2.7%
DOE Biology and Environmental Research	\$497,760		\$442,970	-11.0%	\$445,880	-10.4%	\$490,000	-1.6%
USDA Competitive Research Grants	\$105,767	89.1%	\$105,767	0.0%	\$105,767 HR 2330 H.Rept 107-116	0.0%	\$137,000 S 1191 S.Rept 107-41	29.5%
National Aeronautics and Space Administration (NASA)	\$14,285,300		\$14,511,400	1.6%	\$14,951,400 HR 2620 H.Rept 107-159	4.7%	\$14,561,400 S 1216 S.Rept 107-43	1.9%
NASA Science, Aeronautics and Technology	\$7,077,648		\$7,191,700	1.6%	\$7,605,300	7.5%	\$7,669,700	8.4%

\* Compiled by FASEB Office of Legislative Relations.

tional coalition to fight terrorism. DeLay said his views have not changed, but his goal was to cooperate for the greater cause. —

## Science and Math Education Supported

"We've all spent a lot of time pointing to the studies that show how poorly our students do, compared with their international counterparts, in math and science," House Science Committee Chairman **Sherwood Boelert** (R-NY) recently stated as he introduced H.R. 1858, "in this bill, we're doing something about it."

With that opening salvo, Chairman Boelert's committee passed a package bill that authorizes the Math and Science Partnerships proposed by **President Bush**, creates scholarships designed to entice math and science majors into teaching, and launches four new university centers for research and learning. This bill has support from the academic and business communities. More importantly though, it also has bipartisan support in the Senate. The Senate companion bill, H.R. 1262, sponsored by Senators **Jay Rockefeller** (D-WV), with help from Senators **Edward Kennedy** (D-MA) and **Patrick Roberts** (R-KS), was introduced in July.

"Strengthening the sciences is important not just for the sake of knowledge, but also to ensure that America remains at the forefront of major technological advances," Rockefeller asserted. If the bill becomes law, it likely will be slated for oversight by the NSF's new Assistant Director for Education and Human Resources (EHR), **Judith Ramaley**. Ramaley, a professor of biology and former president of two universities, oversees EHR's \$800

million annual budget. For further information, visit <http://www.nsf.gov/od/lpa/news/publicat/nsf0065/ehr/ehr.htm>. —

## Stem Cell Update

Following **George Bush's** July announcement limiting federal support of stem cell research to existing lines, many in the scientific community have expressed concern about the number and quality of the lines.

The NIH is preparing a Human Embryonic Stem Cell Registry that will store basic information on currently existing stem cell lines. The President held August 9, 2001, as the deadline for existing stem cell lines. Signed assurances that the derivation process was completed by that date must be given for inclusion in the registry. The NIH is also considering several initiatives to help researchers with the use of both embryonic stem cells and adult stem cells in humans and animals. Grant applications for such research are encouraged. The NIH link for the stem cell release is <http://www.nih.gov/news/stemcell/082701list.htm>

## NSF Study Finds Graduates Not Teaching

According to a recent survey report issued by the NSF Division of Science Resources, fewer than 47 percent of science and engineering doctorates accepted academic employment in their first years after receiving degrees. That, despite the finding that 64 percent of those surveyed said that teaching was their first career choice.

*Additional survey results:*

- 47 percent of the science and engi-

neering graduates were employed in the academic sector compared with 49 percent who were employed in other sectors. Four percent were not currently working.

- More women, 52 percent, were employed in academia than men, 44 percent.
- Life sciences PhDs were most likely at 53 percent and engineering graduates were the least likely at 24 percent to be employed in academia.
- Of the PhDs employed in the academic sector, 65 percent worked in four-year colleges and universities, with medical schools employing the next largest share, 21 percent, followed by research institutes 10 percent and finally two-year colleges 3 percent.

Career advancement, including tenure data, was collected through the survey and the NSF has suggested that it could track career developments of doctorate holders, including the rates at which individuals starting in academic positions move into non-academic jobs, and vice-versa.

For more information on the SDR, visit <http://www.nsf.gov/sbe/srs/cdse/start.htm>

## The Teaching of Evolution

The Biophysical Society joined other organizations in asking the House and Senate conferees to remove a provision from the Senate HR 1 bill, which contains a resolution that singles out biological evolution as a controversial theory.

The letter, which was sent to Congressman John Boehner and Senator Edward Kennedy, is reprinted on the following page.

*(Continued on page 14.)*

August 21, 2001

The Honorable John Boehner, Chairman  
Committee on Education & the Workforce  
U.S. House of Representatives  
Washington DC 20515

The Honorable Edward M. Kennedy, Chairman  
Committee on Health, Education, Labor & Pensions  
U.S. Senate  
Washington DC 20510

Dear Conference Committee Chairmen:

The undersigned scientific and educational organizations urge the Conference Committee to remove Section 1022 from the Senate-passed version of H.R.1. This Sense of the Senate resolution introduced by Senator Santorum sets a precedent of congressional involvement in the teaching of evolution, an issue that until now has been debated at state and local levels. Given the significance of such a precedent, we do not feel that adequate consideration was given to the amendment's implications before its adoption.

Those implications have become increasingly apparent in recent weeks as anti-evolution groups have hailed the amendment's passage as a major victory. The Senate vote is being portrayed as a vindication of the 1999 decision by the Kansas Board of Education to eliminate evolution from state tests. Yet Kansas citizens recognized that the Board's decision weakened science education in their state, and they repudiated the School Board vote in the following year's elections. Today, Kansas has some of the best science education standards in the country.

As written, the apparently innocuous statements in this resolution mask an anti-evolution agenda that repeatedly has been rejected by the courts. The resolution singles out biological evolution as a controversial subject but is deliberately ambiguous about the nature of the controversy. Evolutionary theory ranks with Einstein's theory of relativity as one of modern science's most robust, generally accepted, thoroughly tested and broadly applicable concepts. From the standpoint of science, there is no controversy. If the point of the resolution is to encourage teaching about political controversy surrounding scientific topics, then evolution is just one of a legion of issues that are the subject of political debate. It should not be singled out.

Confusing political with scientific controversy on the topic of biological evolution will weaken science education. Thank you for considering our request to remove this resolution and for your lasting commitment to ensuring that students in the nation's public schools receive the best science education possible.

Sincerely,

For a complete list of signatories, visit: <http://www.agiweb.org/gap/legis107/evolutionletter.html>

## Obituary



*Bob Mendelson*

**Robert Alexander Mendelson Jr.**, long-time member of the Biophysical Society and Council Member from 1985-1988, was part of a wave of physicists who sensed the changes in biology in the sixties and went on to define molecular biophysics. Born in Los Angeles, January 24, 1941, he gained his A.B. (Physics) from Occidental College in 1962. Bob started as a nuclear physicist, graduating from the University of Iowa (PhD Physics, 1967) before moving to Berkeley in 1968. During this period, he made the decision to bring the approaches of nuclear physics to the study of biological processes. In 1970, he moved across the Bay and joined *Manuel*

*Morales'* group at UCSF where he rose to the rank of Professor of Biophysics. Bob established nanosecond techniques for following fluorescence from muscle proteins. His was probably the second nanosecond rig to work on biological macromolecules. He quickly expanded to other areas of fluorescence. During the late seventies, Bob started what was to become his major research focus: the use of solution scattering to study the structure, dynamics and organization of biological macromolecules. Initially, his laboratory used x-ray scattering to study myosin and then pioneered neutron scattering of protein complexes. These structural studies, together with other work, form the basis for our current understanding of how molecular motors generate force and are regulated. Bob loved experiments and new instrumentation, remaining a "hands-on" experimentalist. He coupled his experimental prowess with a deep theoretical understanding, analyzing each experiment with a battery of theoretical and computational techniques. His last work was a tour de force

on determining the molecular basis for muscle regulation by the troponin system. The work has all the hallmarks of Bob's style of science: exquisite biochemistry; state-of-the-art neutron measurements; and computationally intense analysis. He worried about all aspects of an experiment. His laboratory worked via dialectical principles, with Bob often taking a contrary position. This could be infuriating, but it often proved crucial. He liked to undertake difficult experiments, breaking new methodological ground.

Bob was diagnosed with lung cancer two years ago. This did not change his lifestyle. He continued on the road he was traveling, collecting data and programming till the end. He died in San Francisco on August 5, 2001, peacefully and surrounded by his family. He is survived by his wife, Adele, and his children, Michael and Leah. Bob will be remembered for his compassion, his integrity, and his honesty. —

—*Paul Curmi*

University of New South Wales

# UPCOMING EVENTS

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## **November 10–15, 2001**

*Society for Neuroscience 31st Annual Meeting,*  
San Diego Convention Center, San Diego California.  
Contact Society for Neuroscience Office,  
11 Dupont Circle, NW, Suite 500, Washington, DC  
20036;  
Phone 1-202-462-6688; Fax 1-202-462-2937;  
Email: [Meetings@sfn.org](mailto:Meetings@sfn.org).  
For more information visit <http://www.sfn.org>

## **May 2–4, 2002**

*2nd Annual International IEEE-EMBS Special Topic  
Conference on Microtechnologies in Medicine and Biology,*  
Madison, Wisconsin,  
Contact: David Beebe  
The University of Wisconsin, Madison  
Phone: (608) 262-2260, Fax: (608) 265-9239  
E-mail: [dbeebe@engr.wisc.edu](mailto:dbeebe@engr.wisc.edu)  
The web site for the conference is:  
<http://mmb.bme.wisc.edu/mmb2002/>

## **June 3–6, 2002**

*17th Annual Offering of Critical Issues in Tumor  
Microcirculation, Angiogenesis and Metastasis: Biological  
Significance and Clinical Relevance, A Continuing Education  
Course of Harvard Medical School and Massachusetts General  
Hospital,* Boston, MA, USA.  
For more information, please visit  
<http://steele.mgh.harvard.edu>

## **July 7–12, 2002**

*XIVth World Congress of Pharmacology,*  
Moscone Convention Center, San Francisco, CA.  
For more information visit <http://www.iuphar2002.org>

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