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2001 Society Election

Yale Goldman, of the University of Pennsylvania, was elected President-Elect of the Biophysical Society. He will assume that office at the 2002 Annual Meeting in San Francisco and begin his term as President during the 2003 Annual Meeting in San Antonio.

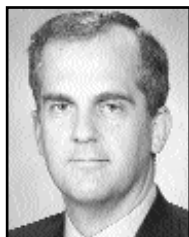
Julio Fernandez, Barry Lentz, Linda Kenney, Justin Molloy, Eva Nogales, and Lucas Tamm were elected to serve three-year terms (2002-2005) on Council. —

President-Elect

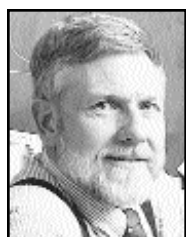


Yale Goldman
University of
Pennsylvania

Councilors



Julio Fernandez
Mayo Clinic
& Foundation



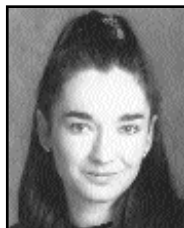
Barry Lentz
University of
North Carolina, Chapel Hill



Linda Kenney
Oregon Health Science
University



Justin Molloy
University of York



Eva Nogales
University of
California,
Berkeley



Lucas Tamm
University
of Virginia
Health Science
Center



Robert Clegg
University of
Illinois, Urbana

Biophysical Journal Initiates Online Manuscript Submission and Peer Review



Beginning September 5, 2001, *Biophysical Journal* will be accepting manuscripts online at <http://submit.biophysj.org>. Submission instructions are available at the site or at

<http://www.biophysj.org/misc/ifora.shtml>.

Authors may visit <http://submit.biophysj.org/cgi/registration> before September 5 to create a new account. This step is necessary to submit papers to the online submission system. —

Biophysical Society Annual Meeting

Abstract deadline is October 7, 2001

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



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

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Award Winners Named

The 2002 Society Award winners this year are *Norma Allewell*, *Barry Honig*, *Peter Moore*, and *William Zagotta*. 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 and Student Symposia.

William N. Zagotta
University of Washington



Norma M. Allewell
University of Maryland, College Park



Michael & Kate Bárány Award for Young Investigators

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.

Emily M. Gray Award

This award is presented annually to a member of the Society who is judged to have made significant contributions to education in biophysics.

Barry Honig
Columbia University



Peter Moore
Yale University



Founders Award

The award was established by the Society to recognize outstanding achievement in any area of biophysics.

Distinguished Service Award

This award is for contributions to the Society and the field of biophysics beyond achievements in research.

The Society thanks the members of this year's Awards Committee: *Stephen Harvey, Chair; Steven G. Boxer; Wilma K. Olson; Mary D. Barkley; and Cynthia Wolberger.*

2002 Society Fellows

Each year the Biophysical Society honors distinguished members who have demonstrated excellence in science and contributed to the expansion of the field of biophysics. Fellows are recognized at the Annual Awards Ceremony and are identified in the annual Directory of Members and in *Biophysical Journal*. The 2002 Fellows are:



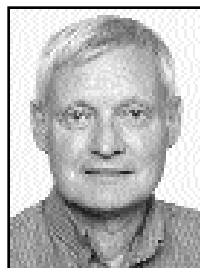
David DeRosier
Brandeis University

For major contributions to structural, molecular and cell biology. In particular for pioneering development of image analysis methods for electron microscopy, and for applications of these methods to understand cellular motility mechanisms.



Joachim Frank
New York State
Department of Health

For the development of electron microscopy methods, particularly those related to image reconstruction, and for applications of these to the structure of the ribosome.



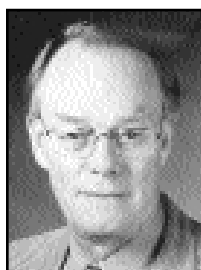
Robert Gennis
University of Illinois, Urbana

For work in bacterial bioenergetics, pioneering the combination of state of the art molecular genetics and physical chemical tools to dissect complex events in membranes that defy exploration by standard high-resolution structural methods.



H. Ronald Kaback
University of California,
Los Angeles

For pioneering biochemical and biophysical approaches to the study of active transport and for seminal contributions in the field of bioenergetics.



Wayne Hendrickson
Columbia University

For contributions of numerous three-dimensional macromolecular structures to the scientific literature and innovations in x-ray crystallography.



Ignacio Tinoco, Jr.
University of
California, Berkeley

For seminal work in the RNA structure and the thermodynamics and kinetics of RNA folding.



Ken A. Dill
University of California,
San Francisco

For studies in protein structure, in particular for the use of lattice models to provide insight into the energetics and kinetics of protein folding.



Clare K. Woodward
Utah State University

For her research on protein folding and stability, particularly her pioneering work in the use of hydrogen exchange to study protein folding and dynamics.



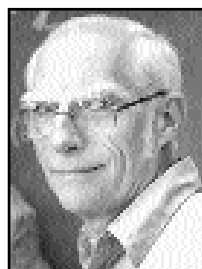
Hans Frauenfelder
Los Alamos National
Laboratory

For significant contributions to our understanding of macromolecular structure and dynamics.



Irwin D. Kuntz
University of California,
San Francisco

For contributions to computational modeling in biology and chemistry, particularly the development of algorithms that search for optimal ligands to bind to target macromolecules.



Bruno H. Zimm
University of California,
San Diego

For studies in molecular biophysics, particularly for contributions in the areas of macromolecular structure, light scattering, gel electrophoresis and other transport properties.



John A. Schellman
University of Oregon

For the development of theoretical methods for studying biological macromolecules, ranging from theories of helix-coil transitions in polypeptides and the energetics of protein folding to the statistical mechanics of nucleic acids.



Stephen H. White
University of California,
Irvine, School of Medicine

For important contributions to our understanding of biological membranes through work encompassing both structural and thermodynamic aspects of lipid bilayers.

SAN FRANCISCO 2002 ANNUAL MEETING

Symposia

Prions & Proteins Misfolding

Introduction

Stanley Prusiner, University of California, San Francisco, Chair

Structural Studies of the Conformations of PrP^c & PrP^{Sc}, *Fred Cohen*, University of California, San Francisco

Structure & Dynamics of the Prion & Doppel Proteins, *Jane Dyson*, Scripps Research Institute

Structural Studies of the Scrapie Prion Protein by Electron Crystallography
Holger Wille, University of California, San Francisco

Species Variation of the Three Dimensional Prion Protein Structure in the Cellular Form, *Kurt Wüthrich*, ETH, Zurich

Structural Studies of a Yeast Prion Protein, Ure2
David Davies, NIDDK, NIH

Membrane Protein Structure: Multiple Technologies

Initial Structure of the M2 Proton Channel from Influenza A Virus by Solid State NMR, *Timothy Cross*, Florida State University, Chair & Speaker

Tackling Complex Integral Membrane Proteins by Solution NMR
Charles Sanders, Case Western Reserve University

Structure of AQP1 Water Channel at 2.2-Å Resolution: The Atomic Basis for Water Specific Transport, *Bing Jap*, Lawrence Berkeley National Laboratories

Structure of the Nicotinic Acetylcholine Receptor, *Nigel Unwin*, MRC, Cambridge

Coupling between Surface & Intracellular Channels in Muscle

Introduction, *Susan Hamilton*, Baylor College of Medicine, Chair

DHPR.com & RyR1.com: Is the loop the Link?, *Kurt Beam*, Colorado State University

Calcium Signaling & Muscle Disease
David MacLennan, University of Toronto

Gating of Ca Influx Channels in the Plasma Membrane by Ca Release Channels in the Endoplasmic Reticulum
Shmuel Muallem, University of Texas Southwestern Medical Center, Dallas

Calcium Entry Channels: TRP & Other Novel Channels, *David Clapham*, Harvard University

Complex Biological Machines: Structural & Functional Investigations

Signal Recognition & Proteolysis by the 26S Proteasome, *Cecile Pickart*, Johns Hopkins University, Chair & Speaker

Protein-swallowing Proteins: Internalization of Substrates by Energy-dependent Proteases
Alisdair Steven, National Institutes of Health

Protein Transport In & Out of the Endoplasmic Reticulum, *Tom Rapoport*, HHMI, Harvard University Medical School

Macromolecular Transport through the Nuclear Pore Complex, *John Aitchison*, Institute for Systems Biology, Seattle

Acetylcholine Receptors & the Neuromuscular Junction: from Atom to Snyapse

Anthony Auerbach, SUNY, Chair & Speaker

The Nicotinic Acetylcholine Receptor Ligand-binding Domain Revealed Through the Crystal Structure of Molluscan AChBP, *Titia Sixma*, Netherlands Cancer Institute

Acetylcholine Receptors, Between Closed & Open, *Anthony Auerbach*, SUNY

Nicotinic Receptor Structure & Function: Lessons from Naturally Occurring & Site-directed Mutations, *Steven Sine*, Mayo Clinic

Macromolecular Architecture of Presynaptic Apparatus as Revealed by Electron Microscope Tomography
Jack McMahan, Stanford University

Unconventional Myosins

Functional Diversity of Unconventional Myosins, *Mark Mooseker*, Yale University, Chair & Speaker

Mechanical Properties of Single Unconventional Myosin Molecules
Justin Molloy, University of York

A Genetic Analysis of Vesicle Transport in the Mouse, *Nancy Jenkins*, National Cancer Institute, Frederick Cancer Research & Development Center

Myosin VI: A Truly Unconventional Myosin, *Lee Sweeney*, University of Pennsylvania

Channelopathies

Introduction

Dedicated to the memory of Shirley Bryant Frances Ashcroft, University of Oxford, Chair,

Startle Disease Mutations of the Inhibitory Glycine Receptor, *Judith Heiny*, University of Cincinnati

Define Determinants of Ion Channel Function, *Cord-Michael Becker*, University of Erlangen-Nürnberg

EAG: A Potassium Channel Involved in Cell Proliferation & Cancer
Walter Stühmer, Max-Planck Institute, Göttingen

Molecular Mechanisms of Inherited Cardiac Arrhythmias,
Michael Sanguinetti, University of Utah

The Physiology of Intracellular Chloride Channels: Lessons from Knock-Out Mice & Human Disease, *Thomas Jentsch*, Hamburg University

Functional Protein Dynamics Extreme Dynamics: Disordered States & Their Roles in Binding & Stability

Julie Forman-Kay, Hospital for Sick Children & University of Toronto, Chair & Speaker

The Role of Conformational Fluctuations in Macromolecular Communication, **Vincent Hilser**, University of Texas Medical Branch, Galveston

Protein Dynamics & RNA Conformational Changes Control Specificity in RNA-Protein Recognition, **Gabriele Varani**, University of Washington

Dynamics & Thermodynamics of Protein-Protein Interactions, **Linda Nicholson**, Cornell University

Moving on Microtubules Directly Testing the Kinesin Motor Mechanism

Steven Block, Stanford University Chair & Speaker

Microtubules Motors & the Mechanism of Mitosis, **Jon Scholey**, University of California, Davis

Motoring in the Spindle with Eg5, **Susan Gilbert**, University of Pittsburgh

Rapid Substeps Detected in the 8-nm Step of the Kinesin Walking Cycle, **Hideo Higuchi**, University of Tohoku

Kinesin Doesn't Move by a Hand-over-Hand Mechanism, **Jeff Gelles**, Brandeis University

Animating the Ribosome

Crystal Structures of Ribosome-Ligand Complexes & the Mechanism of Peptide Bond Formation, **Peter Moore**, Yale University, Chair & Speaker

Toward a Molecular Understanding of the Ratchet Movement, **Joachim Frank**, Wadsworth Center, Albany

Dynamics of Ribosome Function: Kinetics of Elongation Reactions, **Wolfgang Wintermeyer**, University of Witten

Inside the Translational Engine: X-ray Structures of Ribosomal Complexes, **Harry Noller**, University of California, Santa Cruz

Guardians of the Genome: Biophysics of DNA Repair

John Tainer, Scripps Research Institute, Chair

Visual Biochemistry: Watching Enzymes Act on DNA at the Single-Molecule Level, **Stephen Kowalczykowski**, University of California, Davis

The Anatomy of a Master Catalyst: Dissecting the Catalytic Power of Uracil DNA Glycosylase, **James Stivers**, Johns Hopkins University

Defeat of Repair Enzymes by Improper Formation of DNA Secondary Structure Causes the DNA Expansion Mutations, **Cynthia McMurray**, Mayo Clinic & Foundation

Interrogation of Protein in Heterogeneous Environments

Solid-State NMR Studies of Biomaterials, **Gary Drobny**, University of Washington, Chair & Speaker

Solid-State NMR Distance Measurements Probe Mechanisms of Transmembrane Signaling in Bacterial Chemotaxis Receptor, **Lynnmarie Thompson**, University of Massachusetts

REDOR NMR of Vancomycin Binding in *S. aureus*, **Jake Schaefer**, Washington University

Peptide Structure & Supramolecular Organization in Amyloid Fibrils, **Robert Tycko**, NIDDK, NIH

Structure & Function of Rotary Motors

Looking into the Structure of the Bacterial Flagellar Rotary Motor, **David DeRosier**, Brandeis University, Chair & Speaker

Rotary Motor Enzyme, ATP Synthase: Function & Regulation, **Masasuke Yoshida**, Tokyo Institute of Technology

Measurement & Modification of the Engineering Properties of TF1 ATPase Relevant to its Integration with Nanoscale Electro Mechanical Devices, **Carlo Montemagno**, Cornell University

Directional Control of the Flagellar Rotary Motor, **Howard Berg**, Harvard University

Membrane Channels & Pumps: Mechanisms of Transport

Robert Stroud, University of California, San Francisco, Chair

Molecular Dynamics Investigation of Transport in Aquaporins, **Klaus Schulten**, University of Illinois, Urbana-Champaign

Functional Studies of the KcsA K⁺ Channel, **Lise Heginbotham**, Yale University

Biology & Biophysics of OxIT, A Virtual Proton Pump, **Peter Maloney**, Johns Hopkins University

Structural Basis of Active Ion Transport by P-type ATPases, **Chikashi Toyoshima**, University of Tokyo

Mechanisms of Kinase Specificity: Scaffolds vs. Sequences

Phosphoserine/Threonine-Binding Modules as Regulators of Kinase & Phosphatase Function, **Michael B. Yaffe**, MIT, Chair & Speaker

The Molecular Architecture of Signal Transduction Complexes, **John Scott**, HHMI, Vollum Institute, Oregon Health Sciences University

Unique Surface Topologies Mediate Dual-specificity Kinase Anchoring Interactions, **Patricia Jennings**, University of California, San Diego

Scaffolding of Receptor, Kinase & Adaptation Components in Bacterial Chemotaxis, **Joseph Falke**, University of Colorado

(Continued on page 6.)

(Annual Meeting, continued from page 5.)

Phosphorylation-dependent Substrate Specificity in the TGF- β Receptor-I Kinase, *John Kuriyan*, HHMI, The Rockefeller University

Data Driven Systems Biology

Sequence-Structure-Function: Results from Structural Genomics
Philip Bourne, San Diego Supercomputer Center, Chair & Speaker

Finding Disease-causing Genes in Healthy People, *Charles Cantor*, Sequenom, La Jolla

Semiotics of Cellular Signaling
Shankar Subramaniam, University of California, San Diego

Systems Biology: Integrating Genomics & Proteomics, *Leroy Hood*, The Institute for Systems Biology, Seattle

Phosphatase Regulation of Contractile Function

Rho A Signaling in Contraction & Cell Motility, *Avril Somlyo*, University of Virginia, Chair & Speaker

Regulation of Myosin Phosphatase
David Hartshorne, University of Arizona

Protein Phosphatases & Dopamine Signaling, *Angus Nairn*, Rockefeller University

Protein Tyrosine Phosphatases: Structure, Function, & Their Roles in Signal Transduction, *Jack Dixon*, University of Michigan

Imaging Function In Situ to In Vivo: New Developments in Microscopy

Mark Ellisman, University of California, San Diego, Chair

New Microscopy Directions: 4D Microscopy-based Chromosomal Motion Analysis & Increased Resolution
John Sedat, University of California, San Francisco

Direct Measurement of Adhesion Protein Dynamics in Living Fibroblasts by Two-Photon Microscopy & Image Correlation Spectroscopy, *Paul Wiseman*, McGill University, Montreal

Watching the Brain Think: Multi-Photon Microscopy In Vivo
Winfried Denk, Max Planck Institute for Medical Research

Genetically Targetable Indicators of Cell Signaling, *Roger Tsien*, University of California, San Diego

Membrane Rafts

Influence of Sterol, Sphingolipid & Membrane Protein Structure on Lipid Raft Formation & Organization
Erwin London, SUNY, Stonybrook, Chair & Speaker

Condensed Complexes, Rafts, & the Chemical Activity of Cholesterol in Membrane, *Harden McConnell*, Stanford University

A Closer Look at Lipid Rafts & Cellular Signaling, *Barbara Baird*, Cornell University

Lipid Rafts in Membrane Trafficking
Kai Simons, EMBL, Heidelberg

The Cell: Putting it Back Together

A symposium sponsored by NIGMS, NIH
Speakers to be announced.

Workshops

Spectroscopy & Isotopes: New Methods & New Results

NMR Methods for Studying Slow Time Scale Dynamics in Proteins: An Application to T4 Lysozyme
Lewis Kay, University of Toronto, Chair & Speaker

Conformation & Dynamics of Selectively & Uniformly Labeled Proteins by Solid-State NMR
Mei Hong, Iowa State University

Can Site-directed FTIR Solve Backbone Structures of Membrane Proteins?
Isaiah Arkin, The Hebrew University

NMR-based Studies of the Structural Basis of PAS Domain Signaling
Kevin Gardner, University of Texas, Southwestern Medical Center

Selective Labeling Strategies Applied to NMR Structure Based Drug Design
Edward Oleyjniczak, Abbott Laboratories

Nucleic Acid Dynamics & Interactions

Dynamic Conformational Transitions in DNA & RNA, *David Millar*, Scripps Research Institute, Chair & Speaker

Protein-DNA Interactions in Initiation of Transcription by RNA Polymerase
Tomasz Heyduk, St. Louis University

Dynamics of DNA-protein Interactions: Single Molecule Fluorescence Studies
Taejip Ha, University of Illinois

DNA/Protein Interactions at the Single Molecule Level, *David Bensimon*, Ecole Normale Supérieure, Paris

DNA Repair Enzymes: From Structure to Function, *Wei Yang*, NIH

One- Two- & Three-Dimensional Ordering of Membrane Environments

Orientation of Ligands & Prosthetic Groups in Functionally Competent Membrane Bound Receptors
Anthony Watts, University of Oxford, Chair & Speaker

Membrane Protein Orientation, Structure, & Function from NMR Spectroscopy, *Francesca Marassi*, Burnham Institute, La Jolla

Strategies for 2D Crystallization of Membrane Proteins
Werner Kuehlbrandt, Max-Planck Institute

Development & Applications of Three-dimensional Crystallization Screens for Integral Membrane Proteins
Michael Wiener, University of Virginia

Single Molecule Imaging

How an ATP-driven Molecular Machine May Work: Clues from Single-Molecule Physiology, *Kazuhiko Kinoshita, Jr.*, Okazaki National Research Institutes, Japan, Chair & Speaker

Watching Single Membrane Proteins Under Native Conditions with the AFM
Andreas Engel, University of Basel, Switzerland

Observation of a Single Dye Labeled Virus on Its Infectious Entry Pathway Into a Living Cell, *Christophe Brauchle*, University of Munich

Ultrasensitive Microscopy to Image Molecular Processes in Living Cells *Gerhard Schütz*, University of Linz

National Lecturer



Watt Webb, National Lecturer

This year's National Lecturer, **Watt Webb**, has made unparalleled advances in new measurements of the dynamics of molecular processes in living cells and tissues. The breakthroughs in bioengineering and biophysics emanating from his laboratory are revolutionizing the fields of cell biology and physiology. His consistent success in bridging the disciplinary boundary between bioengineering and biophysics and between the physical and life sciences portends the future development and integration of these fields. The powerful optical techniques invented or engineered in his laboratory will become indispensable tools as scientists around the world seek to understand the molecular basis of cellular function. They also afford noninvasive tools for biomedical imaging, diagnosis, and treatment of disease. These new technologies evolved from Webb's fundamental inventions of Fluorescence Correlation Spectroscopy (FCS) in 1972 and Multiphoton Microscopy (MPM) in 1990.

FCS allows single-molecule detection and provides temporal resolution of dynamic biochemical processes based on rigorous photophysical and statistical thermodynamic principles. Although early realizations of this innovative tech-

nique were technically difficult, engineering advances over the years have created new excitement, attracting at least 30 presentations on FCS at the 2000 Annual Meeting of the Biophysical Society. The renewed interest results from recent developments in Webb's laboratory in the combined use of FCS and MPM for studies of dynamics in living tissues and in improved sensitivity for single-molecule detection and analysis. All told, there were about 90 single-molecule presentations delivered at the 2000 Biophysical Society meeting with even more expected next year.

MPM involves excitation of fluorescence and photochemistry by scanning ultrafast lasers. It provides the capability for microscopic imaging of fluorescence and micropharmacologic application of drugs through activation of reagents, caged drugs, and neurotransmitters by multiphoton molecular excitation. MPM reduces photodamage to living cells and tissues and minimizes image degradation due to scattering, thereby opening the possibility of high resolution, high signal-to-noise imaging deep in living tissue. Webb and his colleagues have continually pushed the limits of these techniques to attain quantitative measurements of time-dependent processes in the interior of cells. The recent confluence of FCS and MPM in his laboratory has engendered many new insights about these processes. Webb and his former student Winfried Denk were awarded the 2000 Rank Prize in Opto-Electronics for MPM.

Webb and his collaborators have published approximately 135 refereed articles in bioengineering and biophysics. Moreover, his laboratory has a long history of inventing, developing, and engineering instruments that later become successful in the marketplace. Much of this success is due to alumni who have taken industrial positions that supervise this development. Even the early developments of fluorescent molecular probes are still licensed and produced. Their early engineering developments of Fluorescence Photobleaching Recovery (FPR), a technique invented in Europe around 1970 for measurement of molecular diffusion, has enabled its widespread use on living cells. In the past five years, Webb's laboratory has focused on inventing, developing, testing, and applying optical instru-

mentation, reagents, and methods for micro-analytical fluorescence measurements in plant and animal tissues in vivo. Specific aspects include:

- Imaging of serotonin (5-hydroxytryptamine) secretion by three-photon excitation in living cells and tissues and discovery of the six-to-ten photon photochemistry of indoleamines that is induced by even higher order multiphoton excitation.
- Application of two-photon excitation to FCS to obtain convenient and reliable single-molecule sensitivity for analytical and dynamical measurements in solution, and dynamical and absolute concentration measurements at nanomolar concentrations in living cells. These capabilities are being applied by Webb and his collaborators to studies of the molecular mechanisms of immunological signals.
- Advances in two-photon microscopy to achieve single particle detection, dynamical measurements of calcium waves in cells and three dimensionally resolved calcium ion release, and design of two-photon probes for measurements and imaging of biological processes deep in plant and animal tissues. Discovery of serious photophysical problems with the extensively used genetic label Green Fluorescent Protein that confuse biomedical applications, and development of successful strategies for avoiding these problems.
- Biomedical engineering applications of MPM with medical collaborators, including imaging of Alzheimer's Disease lesions deep in human brain, benign imaging in living transgenic mice of the slow development of β -amyloid plaques and the effects of promising drug treatments, and imaging of the spatial and temporal distribution of the primary drug used in treatment of the inflammatory colon disease colitis and metabolism of the drug.

The immediate impact of these breakthroughs is considerable, as judged by invited talks and citations and by the growing number of scientists clamoring

(Continued on page 8.)

(National Lecturer, continued from page 7.)

to use the new technologies. Numerous collaborators from around the world have visited the Webb laboratory to make quantitative measurements in living cells. However, the full impact is only now becoming apparent as the instrumentation and methodologies become readily accessible to cell biologists and other life scientists. FCS machines are commercially available from two companies in Germany and the United States, and a third company is producing custom correlators for this application. Interest in FCS is building, especially as an assay for protein folding and protein-protein interactions. Webb's laboratory is at the forefront of these specific applications of FCS. Most importantly, their work is leading to measurements of these phenomena not just in test tubes, but in the proteins' native environment, the living tissue. MPM is licensed under patents owned by Cornell University. Both FCS and MPM have at least 100 installations each worldwide. Now that they are commercially available, the numbers are climbing rapidly. In fact, shared instrumentation study sections at both NIH and NSF are seeing many more

requests for two-photon microscopes than for confocal microscopes.

Webb has also trained two generations of scientists and engineers, who have gone on to make important contributions to bioengineering and biophysics. Alumni from the Webb laboratory hold positions of leadership in both the academic and industrial research communities. It is particularly interesting to note that many of these researchers, most from a physics background, are now centered in biological departments. Webb's continuous emphasis on the scientific problems has directly led to these transformations. Currently, the graduate students and post-docs in his laboratory come from eight different fields of training.

As we enter the post-genomic era, biomedical research will depend increasingly on input from physics and chemistry to unravel the interworkings of known genetic programs. The work of *Watt Webb* over the last few years has made tremendous strides in bringing about and engineering the capability for quantitative molecular measurements applied to biomedical problems.

— *Mary D. Barkley*
Biophysical Society President

Satellite Meetings

Thursday, February 21, & Friday, February 22

A satellite meeting in the area of Computational Biology in memory of *Peter Kollman*. For more information, contact *Ken Dill*, 415-476-9964, dill@maxwell.ucsf.edu; updates available at <http://www.biophysics.org/society/biophys/annmtg/events.htm>

Friday, February 22

Fluorescence Spectroscopy of Biomolecules

A satellite meeting to honor the contributions of *Ludwig (Lenny) Brand* to biological fluorescence. Details and updates will be available at <http://www.biophysics.org/biophys/society/annmtg/events.htm#satellite> and the <http://www.nih.gov/sigs/fig> "special items" link.

SUBGROUP NEWS

Bioenergetics

2002 Symposia

The Bioenergetics Subgroup is organizing two symposia for the annual Society meeting next February in San Francisco. The theme of the morning symposium, co-chaired by **Hartmut Wohlrab**, Boston Biomedical Research Institute, and **Bridgette Barry**, University of Minnesota, is *Structure, Function, and Evolution of Channels and Transporters*. Speakers will include **Bridgette Barry**, and **Amy Davidson**, Baylor College of Medicine; **Robert Stroud**, University of California, San Francisco; and **Milton Saier**, University of California, San Diego.

The afternoon symposium will be on the topic *Calcium Signaling and Mitochondria*, chaired by **Gyorgy Hajnoczky**, Thomas Jefferson University. The speakers in this symposium will be the chair; **Rosario Rizzuto**, University of Ferrara; **Andrew Thomas**, University of Medicine and Dentistry of New Jersey; **Michael Duchen**, University of London; and **John Lemasters**, University of North Carolina, Chapel Hill.

Gordon Conference

The semi-annual Gordon Research Conference on Bioenergetics was held June 17-22, 2001, at the Kimball Union Academy, Meriden, NH. This year's chair was **William Cramer**, Purdue University, a member of the executive committee of the Bioenergetics Subgroup. Session topics included protein electrostatics, intraprotein charge transfer, selective ion transfer mechanisms and signal transduction (in rhodopsins), intramembrane charge transfer (in respiratory and photosynthetic complexes), biogenesis of electron transport complexes, the ATPase nanomotor, coupling of ATPase to rotation and catalysis, structure-function of transporters, and global cellular bioener-

getics. **Michael Forgac**, Tufts University, this year's vice-chair, will chair the bioenergetics Gordon conference in 2003, and **Gary Cecchini**, University of California, San Francisco, was elected chair for the 2005 conference. —

— **Carmen Manella**, Chair

Membrane Biophysics

2002 Symposium

Robert French will be organizing the Membrane Biophysics Subgroup symposium for the meeting in San Francisco, in 2002. The topic will be *Molecular Motions Underlying Ion Channel Gating*. The session is being to planned include interactive discussions of several current issues. Presenters/provocateurs will include: **Francisco Peter Tieleman** and **Gary Yellen**.

Nominations for the K.S. Cole Award

The subgroup welcomes nominations for the K.S. Cole award. The deadline 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: **Robert French**, University of Calgary; **Bill Wonderlin**, West Virginia University; **Barbara Ehrlich**, Yale University; **Lynne Quarmby**, Simon Fraser University; **David Dawson**, Oregon Health Sciences University; and **Sarah Garber**, FUHS / The Chicago Medical School. —

— **Robert French**, Chair (french@ucalgary.ca) and **Bill Wonderlin**, Secretary-Treasurer (wonder@wvu.edu)

Biophysics Textbook OnLine News

- BTOL was recently highlighted in the June 1, 2001, edition of **Science**, in the NewWatch section under "Education."
- The volume "Computational Biology" has been renamed "Computational Biophysics and Theory" and **Daniel Beard** is the new volume editor.
- Two new chapters have also been contributed to this volume:

A Molecular Modeler's Guide to Statistical Mechanics
Daniel A. Beard

Mathematical Models in Biophysics
Riznichenko Galina Yur'evna

- A new volume "Biophysics Experiments" has been added to the BTOL, and **Barry Selinsky** is the volume editor. The goal of this volume is to provide an experimental resource for classes in introductory biology, introductory physics, molecular biology, biochemistry, physical chemistry, and biophysics. These experiments will parallel chapters in the other volumes. Computer simulations, virtual experiments, and internet-based learning will also be incorporated into this volume.

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

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

The Biophysical Discussions

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

Asilomar, California
April 19, 2002—April 22, 2002

Organizing Committee: *Axel Brunger*, Stanford University, *David DeRosier*, Brandeis University, *Stephen Harrison*, Harvard University, and *Eva Nogales*, University of California at Berkeley.

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.

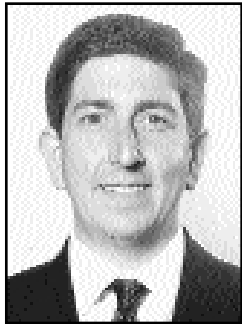
The presenters and discussion chairs include: *Richard Henderson*, MRC-Laboratory of Molecular Biology; *Jamie Cate*, University of California, Berkeley; *Joachim Frank*, SUNY-Albany; *Helen Saibel*, Birkbeck College; *Keith Hodgson*, Stanford University; *Andy Thompson*, EMBL-Grenoble; *Janos Hajdu*, 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; and *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.

- 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.
- 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.

Biophysical Society's New Public Policy Director



Alec Stone, Public Policy Director

Alec Stone joined the Biophysical Society as Public Policy Director on June 15, 2001. Although this is a new position in the Society office, many Biophysical Society members already know and have worked with Stone in the past when he was National Field Coordinator for the Joint Steering Committee for Public Policy.

Stone, former Director of Government Affairs for the Deafness Research Foundation, will work with the Public Affairs Committee and the Society's CLC.

If you are interested in becoming active in the Biophysical Society's public affairs activities, or if you have issues you wish the Society to address, contact Alec Stone at (301) 530-7176 or astone@biophysics.org

NSF Update

On July 10, 2001, the U.S. House of Representatives' VA-HUD Appropriations Subcommittee approved, by voice vote, the 2002 fiscal year spending bill, allocating \$84.1 billion in discretionary spending. Funding includes the National Science Foundation, NASA, and several housing programs. This is a \$790 million increase over President Bush's request and \$3.6 billion increase over the FY01 funding level.

Some details on the National Science Foundation funding:

- \$414 million increase from FY2001, a 9% increase
- \$368 million over the President's budget request
- FY02 funding total \$4.8 billion (the largest NSF budget ever)
- \$3.64 billion for research
- \$135 million for research equipment
- \$885 million for education and human resources

DOD Science Funding

A healthy percentage of the money for many math, science, engineering and computer science departments at the university level comes from the Department of Defense's (DOD) science budget. On June 5, 2001, **Edward Aldridge**, the new chief of research and development at DOD told a Senate panel that between 2.5 percent and 3 percent of the entire Pentagon's budget would be spent on basic and applied science. If completed, that plan could earmark \$10 billion for research—a 10 percent increase over current funding levels.

What's Next for the NIH?

The June 15, 2001 issue of *Science*, *NIH Prays for a Soft Landing After Its Doubling Ride Ends*, makes the point that the wonderful increases the NIH has received from Congress, due to continue through 2003, may see some shockingly modest increases after that; estimates suggest that the Bush Administration may only increase funding for the NIH at an annual rate of 2 percent. With a lagging economy and the President's tax cut passed by Congress, many wonder what the NIH will do at the end of this tremendous growth cycle.

What happens will have a direct result on the number and amounts of grants awarded by the NIH's 27 institutions. In 2002, NIH officials expect to fund a record 36,143 grants, with an average annual award in the amount of \$367,000. This is an increase of 51 percent since

1993 in the number of grants awarded and more than a \$25,000 boost per grant within the last year alone.

Many institute directors have already begun to make tough choices. They are currently lowering the numbers of grant awardees and preparing for the lean years. Others are putting caps on renewable 3- and 4-year awards. House and Senate Democratic leaders differ on the spending. Ranking Member **David Obey** (D-WI) asked if spending "was the way science is going, or a way to move large sums of money now that you are getting these increases?" At the same time, Labor/HHS Chair, Senator **Tom Harkin** (D-IA) advanced the idea of providing more funds for labs and equipment. After enjoying a substantial increase, the science community will need to address the next phase of federal funding.

LHHS Appropriations Timeline

- As Members of Congress adjourned for their summer recess, FY2001 budget decisions were shelved until their return.
- The House Labor, Health and Human Services, Education and Related Agencies (Labor/HHS) Subcommittee allocated \$119.76 billion to NIH. This figure is about \$4 billion more than the President's proposal of \$115.68 billion, and slightly more than the Senate's \$119 billion allotment. Neither chamber has formally approved their respective allocations. The Bush administration has asked for an FY2002 budget that increases the NIH's funding 13.7 percent over the FY2001 budget, about \$23.1 billion.
- Even as the House adjourned for the July 4th recess, Senate Majority Leader **Tom Daschle** (D-SD) told Members that their work was "more important than fishing - than any kind of vacation we may be taking next week." Members decided to finish the FY02 \$15.7 billion Agriculture spending bill upon their return from Independence Day vacation. Much of the Senate battle has been over

(Continued on page 12.)

(Public Affairs, continued from page 11.)

the Patients Bill of Rights, as well as Campaign Finance Reform and other important legislative matters.

- Although the Senate changed hands in early June, biomedical research remained in an enviable position. For several years, Senators **Arlen Specter** (R-PA) and **Tom Harkin** (D-IA) have worked together to double the NIH's budget. While some Senators are arguing for increased defense spending, Harkin will continue to fight for health care and education allocations.
- Completion of the House Labor/HHS and Defense Appropriations bills, two of the most controversial and expensive of the 13 appropriation bills, will not take place until late September.

Study Section Comments Sought

In 1999, CSR, through its Advisory Committee, began a Two-Phase, system-wide evaluation of our Peer Review process. In Phase I, a select group of external scientists (Panel on Scientific Boundaries for Review) recommended a broad reorganization scheme, which called for the future establishment of 24 IRGs. Among these, IRG #17 (identified at that time as the Bone, Muscle, Connective Tissue and Skin IRG), incorporated the vast majority of scientific topics (with the exclusion of Nephrology and Urology) that have been previously evaluated in MSD IRG Study Sections. A more complete description of the history of this process and its intent can be found at:

<http://www.csr.nih.gov/EVENTS/summary012000.htm>

and updated at:

<http://www.csr.nih.gov/EVENTS/updatephase2.htm>

<http://www.csr.nih.gov/PSBR/IRGComments.htm>

After this general plan was accepted by CSR/NIH, the second (implementation) Phase was initiated and, as part of Phase II, on July 11-13, 2001, a panel of 36 individuals, over 75% of whom were external scientific experts in the fields most impacted

(<http://www.csr.nih.gov/PSBR/MOSS/MOSSRoster.pdf>),

gathered in Washington and ultimately proposed a set of referral guidelines for IRG #17, which is now tentatively named the Musculoskeletal Oral and Skin Sciences Integrated Review Group (MOSS IRG). These guidelines can be found at:

<http://www.csr.nih.gov/PSBR/MOSS/MOSS.htm>

You are invited/encouraged to carefully examine the guidelines for each of the five proposed Study Sections, which would form the core of the regular standing review committees in the IRG, have your colleagues assess them, and feel free to comment.

<http://www.csr.nih.gov/PSBR/MOSS/MOSSIntro1.htm>

The 90-day public response period will close on October 19, 2001. It is hoped that a final plan will be phased in over the next 1½-2 years, a length of time that is likely to be necessary to allow for thoughtful consideration of those comments and the integration of any modifications that might result either from them, the efforts to reorganize other

IRGs, and/or from other changes occurring elsewhere within CSR.

IRS Tax Option

Representative **Michael Bilirakis** (R-FL), Energy and Commerce's Health Subcommittee Chair, has proposed The Biomedical Research Assistance Voluntary Option Act (HR 1340), which, if passed, would allow taxpayers to "designate that part or all of any income tax refund be paid over for use in biomedical research conducted through the National Institutes of Health." The bill, which currently has bipartisan support from 32 co-sponsors, was referred to the Committee on Ways and Means, for jurisdictional determination.

OST Director Named

President Bush nominated **John H. Marburger III** as the director of the White House Office of Science and Technology (OST). Marburger is currently the director of the Energy Department's Brookhaven National

Laboratory. During his Brookhaven tenure, Marburger is credited with creating the world's largest particle accelerator for nuclear physics research, expanding biomedical research and initiating work on the human genome.

Bush adviser *Floyd Kvamme* made the announcement, saying that the Administration was "looking for somebody with broad experience and an appreciation of practical science issues." Some of the most contentious scientific and political issues Marburger will face include stem cell research funding, global warming and the energy policy. Marburger's appointment is contingent upon Senate confirmation, which may not occur until the fall.

Marburger, a Democrat, is the former President of the State University of New York at Stony Brook. Previously, he was a University Professor of Physics and Electrical Engineering and has served as the Dean of the College of Letters, Arts and Sciences at the University of Southern California. Marburger's professional and civic associations include the Universities Research Association, the Advisory Committee to the New York State Senate Committee on Higher Education, and the Board of Directors of

the Museums at Stony Brook. He is a graduate of Princeton University and received his Ph.D. in Applied Physics from Stanford University.

Stem Cell Update

In a rare televised address to the Nation, **President Bush** announced his long-awaited decision on stem cell research. Under the Bush plan, taxpayer money may be used to study only the 60 cell lines in existence as of August 9, 2001. The President stated that it is the government's role to foster an environment conducive to research and development, but he ruled out financing for research on any subsequent lines. Mr. Bush argued that the government should not encourage the further destruction of embryos, a requirement for extracting stem cells.

NIH Acting Director **Ruth Kirschstein** praised the president's decision, saying "The approach he has outlined is sound, and we understand the President's clear desire to move forward with care." **Anthony Fauci**, Director of the National Institute of Allergy and Infectious Diseases, said, "We can move forward now and do some real good for humankind."

Following the President's address, Secretary of Health and Human Services **Tommy G. Thompson** said the National Institutes of Health has already begun creating a federal registry that lists the self-sustaining cell colonies. He explained that there are 60 such lines that researchers will be permitted to study through federally-funded research. Although response from the scientific community has been generally positive, some scientists questioned the number and quality of these embryonic stem cell lines since only about a dozen lines have been described in published reports. Thompson, in describing the cell lines said, "They're diverse, they're robust, they're viable for research." According to Thompson, the cell lines are found primarily in academic institutions and biotechnology companies in five countries: the United States, Israel, Sweden, Australia, and India.

Until President Bush's decision, Congress had been set to hold more hearings on stem cells after the summer recess; however, with the administration's decree those hearings are unlikely. —

— *Alec Stone*, Public Affairs Director

Obituary



Peter A. Kollman

Peter A. Kollman, perhaps best known for the biomolecule computation software called AMBER, died after a short bout with cancer at age 56 on May 25, 2001. Peter earned his PhD with *Lee Allen* at Princeton, did postdoctoral work with *David Buckingham* in

Cambridge, and had been Professor of Pharmaceutical Chemistry and Biophysics at the University of California, San Francisco, since 1971.

Peter was a pioneer in the development of all-atom computer simulation methods in biochemistry and medicinal chemistry. He was unparalleled in his ability to interface with experimentalists, he was known for boldness in attacking challenging biological problems, he was a superb and enthusiastic teacher, and he was a founding father and key evangelist for all of computational structural biology. He was a winner of the American Chemical Society Award for Computers in Chemistry and UCSF's Distinction in Teaching Award, and was the 11th most cited chemist during the period from 1981-1997.

There are two things I will miss

most. First, Peter had extraordinary insight into chemistry — molecular forces and structures. He could look at a molecular dynamics simulation of tens of thousands of atoms, and usually knew exactly what was driving any particular behavior. In the last two years, he had begun to make remarkable progress on protein folding, through advances in his lab in implicit solvation and conformational sampling. Second, I will miss Peter's sunny optimism and great enthusiasm. I still remember a student of Peter's quantum chemistry course, who "loved it, even though I didn't understand a word he said." Those of us who were Peter's colleagues and students benefitted enormously from his wonderfully generous support. We will miss him very much. —

— *Ken Dill*, UCSF

IUPAB

What is IUPAB?

The International Organisation for Pure and Applied Biophysics was formed in Stockholm in 1961, and it was re-named as the International Union (IUPAB) in 1966, when it became a member of ICSU (now known as the International Council for Science). Its objectives are: to organise international cooperation in biophysics and promote communication between the various branches of biophysics and allied subjects; and to encourage within each adhering body cooperation between the societies that are interested in the advancement of biophysics in all its aspects. The Union thus has a clear mission not only to advance the subject in those places where it is already strong, but to build bridges and support the development of the subject in those parts of the world where the subject is less well established.

The members of IUPAB are known as 'Adhering Bodies', which represent scientific communities, generally national scientific organizations. In the year 2001, there are exactly 50 members representing communities ranging from some with just a handful of members (e.g., Hong Kong), to others such as the USA, with thousands. Each community is free to adopt the mechanism of affiliation that it expects to be most appropriate. In some cases, the official Adhering Body is a National Academy of Science (as in the USA), in some cases it is a Research Council (as in Canada) and in others it is a national biophysical society or a biophysics branch of a more general scientific society. Whichever of these modes is chosen, it is of the greatest importance that the national Adhering Body should form an effective channel of communication between the International Union and the national community of biophysicists.

How is IUPAB run?

IUPAB is run by a Council comprising

five Officers and 12 'ordinary' members, elected by the General Assembly that takes place at the course of one of the triennial International Biophysics Congresses. The Officers (President, Past-President, 2 Vice-Presidents and Secretary-General) act as an Executive Committee. Each serves a three-year term, apart from the Secretary-General who may serve for up to 12 years. The President is elected from one of the two Vice-Presidents. Each 'ordinary' member is elected initially for one three-year term, and may be re-elected for one further term. As there are 50 Adhering Bodies and 17 members of Council, a maximum of one third of the bodies have a Council member and all members of Council are therefore

elected in a personal capacity, not as national representatives. The General Assemblies carry out the usual business of such bodies, including electing the Officers and Council and voting on invitations to hold future Congresses; the final decision on Congress venues is, however, made by the Council, taking account of financial and other relevant factors, such as the need to balance the claims of regions where biophysics is well developed against those where the development of the subject would be stimulated by holding a Congress.

The delegates to General Assemblies are chosen by the national Adhering Bodies (the US National Committee for IUPAB of the National Academy of Sciences, in the case of the USA); countries may send three, two or one voting delegate(s) according to their level of subscription, while those countries that have severe financial problems and which pay just a nominal subscription are entitled to attend, but not to vote at Assemblies.

What does IUPAB do?

The most widely-known activities are of course the triennial International

Biophysics Congresses. Some people question the value of such meetings. There are several strong arguments in their favor:

- first, they present a synoptic view of contemporary biophysics that will inform young scientists planning the future direction of their careers and enable mature scientists to place their own specialization within the wider context and in an international forum;
- second, they provide an opportunity for young scientists and those from the developing world to gain the inspiration that comes from meeting the leaders of their field face-to-face;
- when held in a developing part of the world, they can stimulate the local scientists, whereas when they are held in a region where the subject is already advanced, they provide an enriching opportunity for those participants from the developing areas;
- even more pragmatically, international meetings provide a fertile meeting place for senior scientists seeking to fill vacancies for assistants, and for young scientists looking for positions in which they can

enlarge their experience outside their own countries. Participation of younger scientists in Biophysics Congresses is facilitated by

the IUPAB Travel Fellowship scheme; grants awarded to 60 young scientists to attend the 1999 Congress in India are a testament to the importance attached by Council to fostering our younger colleagues. It has been said that the future well-being of biophysics does indeed depend on providing opportunities for the 20- to 30-year-old group.

The triennial Congresses are by no means the only activities fostered by IUPAB. In the three-year period 1996-1999, for example, IUPAB gave financial support to no fewer than 17 meetings, held in many countries around the world: five in South America, four in Western Europe, four in Eastern Europe, three in India/Asia and one in North America. This is not a new venture, but a continuing core activity for IUPAB. Most of these meetings have been

specialist workshops, others more general 'summer schools' on the foundations of biophysics. Our sponsorship is used primarily to assist our colleagues from developing countries to attend meetings elsewhere, or conversely to bring biophysicists from the developed part of the world to those areas where our discipline is taking off. Special consideration is always given to younger biophysicists.

Relationships—Upwards, Downwards and Sideways

As has already been said, IUPAB is one of the Scientific Unions that belong to ICSU (now 27 or so in total). ICSU promotes cooperation between its members in areas such as 'Capacity Building' and in international problems such as those affecting the environment. As an international, non-governmental organization, it has played an important part in ensuring freedom in the conduct of science (now perhaps less of a problem than in 'cold war' days) and freedom in the exchange of information and data (now perhaps an increasing problem).

In between the International Union and its national members, there are a number of

regional organizations of biophysicists; these include the European Biophysical Societies Association (EBSA) and the Society of Biophysicists of Latin America (SOBLA); the Biophysical Society fulfils this role in North America;

and discussions are taking place about the possibility of an association of Asian biophysicists. The future will probably see a formalization of a hierarchical structure of international, regional and national bodies, as already exists in some of our sister disciplines.

In order to look after various activities, IUPAB has established several Task Forces:

- Bioinformatics
- Capacity Building in Biophysics
- Education in Biophysics
- Biomedical Engineering
- NMR in Biophysics

The Bioinformatics Task Force has been intimately concerned with an Inter-Union Bioinformatics Group run jointly with the International Union of Biochemistry and Molecular Biology

(IUBMB) and the International Union of Crystallography (IUCr) which, with funding from IUPAB and ICSU, has already run one successful Bioinformatics Industrialization Workshop, and has another planned for later this year. The Capacity-Building Task Force has, again with support from IUPAB and ICSU, devel-

oped an exchange scheme within Latin America (as a pilot study) emphasising the value of 'horizontal cooperation' between the countries of the continent. And the Education Task Force is now embarking on a collaboration with the

"The future will probably see a formalization of a hierarchical structure of international, regional and national bodies, as already exists in some of our sister disciplines."

Biophysical Society in expanding the *Biophysics Textbook Online* project.

Publications and Communication

The IUPAB 'house journal' is Quarterly Reviews of Biophysics, published by Cambridge University Press, each volume of which contains two or three review articles which consistently achieve high citation indices. IUPAB News, the Union's newsletter, which is distributed to all Adhering Bodies and secretaries of national societies, contains reports of scientific and business meetings and is the official medium of communication with the Union's members.

For several years now, recent issues of IUPAB News have been included in the IUPAB website (<http://www.iupab.org>) together with listings of Council members, Adhering Body representatives, Calendar of meetings, details of

Travel Fellowships, etc.

Future Congresses

The XIVth International Biophysics Congress will take place in Buenos Aires on April 27–May 1 2002 and the XVth in Montpellier, France in September 2005.

Members of the Biophysical Society are cordially invited to participate and are assured of a warm welcome at the Congresses. Information about the Buenos Aires Congress is to be found at: <http://www.biofisica.dna.uba.ar/iupab02.html> —

– *Anthony North*, University of Leeds. Secretary General, IUPAB

XIVth International Biophysics Congress

April 27–May 1, 2002
Buenos Aires, Argentina

Abstract Deadline: January 7, 2002
Registration Deadline: December 15, 2001
Information: <http://www.biofisica.dna.uba.ar/iupab02.html>

UPCOMING EVENTS

September 27–30, 2001

2001 SACNAS National Conference

A New Tapestry of Science: Woven Across Cultures and Disciplines

Phoenix, Arizona

For more information, visit: <http://www.sacnas.org>

October 31–November 3, 2001

Annual Biomedical Research Conference for Minority Students

Orlando, Florida

For more information, visit: <http://www.abrcms.org>

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: 202-462-6688; Fax: 202-462-2937; E-mail:

Meetings@sfn.org

Internet: <http://www.sfn.org>
