Biophysical Society NEWSLETTER

September/October 2005 Issue

Falke Elected President-Elect

Eight Society Members Elected to Council

President-Elect

Joseph J. Falke

Joseph J. Falke, University of Colorado, Boulder, was elected President-elect of the Biophysical Society. Falke will assume that office at the 2006 Annual Meeting in Salt Lake City and begin his term as President at the Business Meeting of the 2007 Annual Meeting in Baltimore.

Because of a tie vote, eight Society members were elected to Council this year. They are: *Ana Maria Gomez*, CNRS INSERM; *Steven Gross*, University of California, Irvine; *Dorothee Kern*, Brandeis University; *Jennifer Lippincott-Schwartz*, NICHD, NIH; *David Piston*, Vanderbilt University; *Rajini Rao*, Johns Hopkins University; *Lynne Regan*, Yale University; and *Gregory Reinhart*, Texas A&M University. Each will serve three-year terms on Council beginning at the 2006 Annual Meeting.

Twenty-eight percent of eligible members cast votes in the 2005 election. The Society is indebted to all the excellent candidates who ran for these offices and congratulates those elected.

Society members may volunteer to be considered for Council or may nominate others for consideration by completing and submitting the form found on page 23 and also available at **http://www.biophysics.org/volunteer.pdf**. All forms must be received in the Society Office by November 15, 2005, for consideration for the 2006 ballots.

Councilors

Ana Maria Gomez

Steven Gross

Dorothee Kern

Jennifer Lippincott-Schwartz

David Piston

Rajini Rao

Lynne Regan

Gregory Reinhart

Annual Meeting Deadlines

Room Sharing Reservations
October 17

Abstract Withdrawal
October 24

Student Housing Reservations
November 4

Early Registration
December 9

Childcare Registration
January 19, 2006

General Housing Reservations
January 26, 2006

Biophysical Society

9650 Rockville Pike
Bethesda, Maryland 20814-3998
Tel: 301-634-7114; Fax: 301-634-7133
E-mail: society@biophysics.org
http://www.biophysics.org/

Officers
President
Steven M. Block
President-Elect
Barry R. Lentz
Past-President
Stephen C. Harvey
Secretary
Ruth A. Altschuld
Treasurer
Mordecai P. Blaustein

Council
Paul H. Axelson
Stephen M. Baylor
Christopher L. Berger
Richard G. Brennan
Clara Franzini-Armstrong
Sharona E. Gordon
Kathleen Hall
Eric Jakobsson
Linda J. Kenney
Elizabeth A. Komives
Ben de Kruijff
Stephen L. Mayo
Tobias Meyer
Ruth Nussinov
Diane M. Papazian
Nils Petersen
Eduardo Rios
Frederick Sachs
Suzanne Scarlata
Paul R. Selvin
R. John Solaro
Lynmarie K. Thompson

Biophysical Journal
Editor-in-Chief
Robert Callender

Executive Officer
Ro Kampman

Publications Manager
Dianne McGavin

Newsletter Production
Michelle Norman

Profiles
Lee Bien

Public Affairs
Ellen Weiss

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

Copyright © 2005 by the Biophysical Society. Printed in the United States of America. All rights reserved.

Spudich Receives First U.S. Genomics Single-Molecule Biology Award

James Spudich, of Stanford University, will receive the first US Genomics Award for Outstanding Investigator in the Field of Single Molecule Biology. Spudich was chosen for his longstanding research interest in the molecular basis of cell motility, specifically the molecular basis of energy transduction that leads to ATP-driven myosin movement on actin. The award will be presented at the Monday evening Awards Ceremony in Salt Lake City. Spudich will also speak in the Awards Symposium on Tuesday, February 20.

Hinderliter Named Dayhoff Awardee

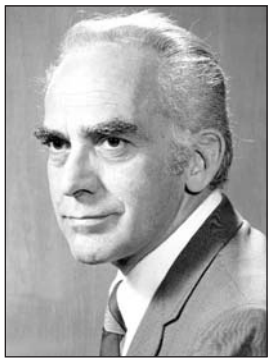
Anne Hinderliter, of North Dakota State University, will receive the 2006 Margaret Oakley Dayhoff Award at the Awards Ceremony in Salt Lake City. This award is given to a junior woman scientist of very high promise in the field of biophysics who has not yet reached a position of high recognition within the structures of academic society. The award also honors the memory of Margaret Dayhoff, former President of the Biophysical Society, Professor of Biophysics at Georgetown University, and Director of Research at the National Biomedical Research Foundation. Anne Hinderliter is being honored for her research in the area of membrane biophysics and cell signaling, and for her potential contribution to deciphering the mechanisms of the lipid-modulated signal transduction. She will give a scientific presentation during the Awards Symposium on Tuesday, February 20.

Does Your Library Subscribe to *Biophysical Journal*?

As the field of biophysics grows, BJ will continue to publish the most up-to-date research available. It is crucial to the field that libraries include BJ in their stable of basic research must-have journals.

Complete a library recommendation form at **http://www.biophysics.org/members/** and let your librarian see what's been missing.

Biophysicists in Profile



Courtesy of the Lawrence Berkeley National Laboratory.

William E. Siri

Among the nearly 500 attendees of the 1957 First Biophysical Conference was *William E. Siri*, who presented a paper entitled "*Determination of Total Fat, Water, Protein, and Mineral in the Human Body*". His story typifies the diversity inherent in the group that attended this first meeting and in the field of biophysics in general. Born in Philadelphia, Pennsylvania, on January 2, 1919, Siri became known as one of the world's foremost mountain-climbing scientists, spending much of his life focusing on how the body reacts to extreme situations. According to his wife, *Jean Siri*, he was a "scientist, adventurer, and mountaineer."

A physicist by training, Siri became a research engineer on the Manhattan Project in 1943, helping to create the atomic bomb. He did not enjoy that work and soon after the war ended, he joined the Lawrence Berkeley National Laboratory, later becoming a leading biophysicist at its Donner Laboratory. At Donner, he worked on the application of radioisotopes to biology and medicine. There, Siri teamed up with *John Lawrence*, a medical physicist known as the father of nuclear medicine, to research technologies to help the human body.

It was this research that led Siri to the mountains, where he spent the next twenty years on climbing expeditions to test the effects of altitude and oxygen deprivation on the human body. His interest in biophysics developed, according to his wife, "because he loved mountains and could use blood and urine studies as part of it—and would be funded by NSF or ONR and NASA." Studying how altitude affects dizziness, appetite and red blood cell counts, he used himself as a guinea pig for most of the tests. By tying in climbing with physiology, he remained an integral part of the Lawrence Berkeley Lab. "On every expedition, mountains or Antarctica," says Jean Siri," he did physiological studies and published papers on the work."

"Studying how altitude affects dizziness, appetite and red blood cell counts, he used himself as a guinea pig for most of the tests."

William Siri and wife, *Jean Siri*. (San Francisco Chronicle file photo, 2965, by *Duke Downey*.)

Siri climbed mountains in the Peruvian Andes, Antarctica, the Sierras, the Himalayan Mountains and many other locations. He was co-leader of the first American expedition to successfully climb Mount Everest, and once even helped rescue *Sir Edmund Hillary*'s climbing team from an icy crevice.

His love of nature extended to all aspects of his life. Siri hiked the Sierras with famed photographer *Ansel Adams*, and in 1964 was elected National President of the Sierra Club. During his Presidency he brought the club from a wilderness group to an environmental activist force. He remained active in the club for decades, receiving its highest accolade, the John Muir Award, in 1994.

Though Siri spent most of his time studying the human body, his research interests also included analyzing water intake of grazing sheep and determining environmental consequences of energy usage and nuclear power. After retiring from the University of California, Berkeley in 1982, the lifetime environmentalist helped many ecological protection groups from the Bay Institute, of which he never missed a meeting, to the Save the Bay Association.

Siri died in 2004 at the age of 85 after a decade-long battle with Alzheimer's disease.

(Continued on page 10.)

Annual Meeting Symposia, Workshop, and Subgroup Schedule

Symposia

Sunday, February 19

8:15 AM – 10:15 AM

Bacterial Chemotaxis and Motility

Richard M. Berry, Oxford University, Chair
David F. Blair, University of Utah
Makoto Miyata, Osaka City University
Jonathan S. Parkinson, University of Utah

8:15 AM – 10:15 AM

Nucleosome Structure, Dynamics, and Function

Jon Widom, Northwestern University, Chair
Karolin Luger, Colorado State University
Geeta Narlikar, University of California, San Francisco
Tom Owen-Hughes, University of Dundee

10:45 AM – 12:45 PM

50th Annual Meeting Symposium: Biophysics from Molecules to Cells

Steven M. Block, Stanford University, Chair
David R. Davies, NIDDK, NIH
Thomas D. Pollard, Yale University
Peter K. Sorger, Massachusetts Institute of Technology
Xiaowei Zhuang, Harvard University

4:00 PM – 6:00 PM

Rearranging DNA Strands in Reombination, Replication, and Repair

Tom Ellenberger, Harvard University Medical School, Chair
Nynke H. Dekker, Delft University of Technology
Stephen C. Kowalczykowski, University of California, Davis
Phoebe A. Rice, University of Chicago

4:00 PM – 6:00 PM

Self-Assembly of Cellular Architecture

Eva Nogales, University of California, Berkeley, Chair
Gary G. Borisy, Northwestern University
Tomas Kirchhausen, Harvard University Medical School
Keiichi Namba, Osaka City University

Monday, February 20

8:15 AM – 10:15 AM

Energy Transduction and Subunit Coordination in AAA and Related Motor Enzymes

Tania Baker, Massachusetts Institute of Technology, Chair
Vincent Croquette, ENS, Paris
Dale Wigley, London Research Institute

Additional speakers to be announced.

8:15 AM – 10:15 AM

Structure by Design: From Single Proteins to Nanostructures

Ruth Nussinov, NCI, NIH, and Tel Aviv University, Chair
David Baker, University of Washington
Luc Jaeger, University of California, Santa Barbara
Nadrian C. Seeman, New York University

10:45 AM – 12:45 PM

New and Notable

Additional information to be announced

4:00 PM – 6:00 PM

Dynamics in Enzyme Function

Judith P. Klinman, University of California, Berkeley, Chair
Sharon Hammes-Schiffer, Pennsylvania State University
Joseph D. Puglisi, Stanford University
Peter E. Wright, The Scripps Research Institute

4:00 PM – 6:00 PM

Small-Scale Systems Biology

Garrett Odell, University of Washington, Chair
Steve Plimpton, Sandia National Laboratories
Michael Elowitz, California Institute of Technology

Additional speakers to be announced.

Tuesday, February 21

8:15 AM – 10:15 AM

RNA Folding and Unfolding

Anna M. Pyle , Yale University, Chair
Daniel Herschlag, Stanford University
Nils G. Walter, University of Michigan
Sarah Woodson, Johns Hopkins University

8:15 AM – 10:15 AM

Visualizing Molecular Function in Living Cells

Robert Singer, Albert Einstein College of Medicine, Chair
Akihiro Kusumi, Kyoto University
Siegfried M. Musser, Texas A&M University, Health Science Center
Clare M. Waterman-Storer, The Scripps Research Institute

10:45 AM – 12:45 PM

Awards Symposium

Speakers to be announced.

4:00 PM – 6:00 PM

Biophysics of Bacterial DNA Segregation and Cell Division

Harold P. Erickson, Duke University, Chair
Nicholas Cozzarelli, University of California, Berkeley
Jeff Errington, Oxford University
R. Dyche Mullins, University of California, San Francisco

Additional speakers to be announced.

4:00 PM – 6:00 PM

Structure-Function Relationships between Ion Channels and Ion Transporters

David C. Gadsby, Rockefeller University, Chair
Michael P. Kavanaugh, University of Montana
Christopher Miller, Brandeis University
Paola Vergani, University College of London

Wednesday, February 22

8:15 AM – 10:15 AM

Electron Transfer-driven Energy Transduction

Robert R. Gennis, University of Illinois, Chair
James Barber, Imperial College of London
Marilyn Gunner, City College of New York
Carola Hunte, Max Planck Institute, Frankfurt

8:15 AM – 10:15 AM

Statistical Mechanical Insights into Biological Function

Robert Phipps, California Institute of Technology, Chair
Nick Buchler, Rockefeller University
Frank Jülicher, Max Planck Institute, Dresden
Pierre Sens, Institute Curie, Paris

10:45 AM – 12:45 PM

Myosins: Diversity and Mechanism

Richard E. Cheney, University of North Carolina, Chair
Anne M. Houdusse, Institute Curie, Paris
Ron Rock, University of Chicago
Kathleen M. Trybus, University of Vermont

10:45 AM – 12:45 PM

Protein Folding and Refolding in Biology

Peter Gettins, University of Illinois, Chicago, Chair
Robert P. Blumenthal, NCI, NIH
Carol Deutsch, University of Pennsylvania

Additional speakers to be announced.

Workshops

Workshops will be held Sunday and Tuesday evenings, 7:30 PM – 9:30 PM.

Sunday, February 19

Analyzing Submicrometer Structure and Motion in Light Microscopy

Jan T. Liphardt, University of California, Berkeley, Chair
Enrico Gratton, University of Illinois
Mats Gustafsson, University of California, San Francisco
Stefan W. Hell, University of Heidelberg

Biophysics of Channelopathies

Frances M. Ashcroft, Oxford University, Chair
Stephen C. Cannon, University of Texas Southwestern Medical Center
Michael C. Sanguinetti, University of Utah
Richard W. Tsien, Stanford University

Visualizing Time-resolved Structures of Macromolecules and Complexes

Philip A. Anfinrud, NIDDK, NIH, Chair
Michael D. Brenowitz, Albert Einstein College of Medicine
Roger W. Craig, University of Massachusetts Medical School

Additional speakers to be announced.

Tuesday, February 21

Coarse-graining Methods for Biomolecular Structure and Dynamics

Gregory A. Voth, University of Utah, Chair
Charles L. Brooks, III, The Scripps Research Institute
Siewert-Jan Marrink, University of Groningen
Michael Thorpe, Arizona State University

Deducing Mechanisms from Single-Molecule Data: Channels to Enzymes

Taekjip Ha, University of Illinois, Urbana, Chair
Ehud Y. Isacoff, University of California, Berkeley
Karl L. Magleby, University of Miami
Hiroyuki Noji, University of Tokyo

Microfluidics in Biophysics Research

Steven R. Quake, Stanford University, Chair
Robert H. Austin, Princeton University
David Beebe, University of Wisconsin, Madison
Rustem F. Ismagilov, University of Chicago

The Salt Lake City TRAX light-rail is a free service between the Grand America Hotel and Convention Center.

Subgroups

All subgroup meetings will be held on Saturday, February 18.

Bioenergetics

Marco Colombini, University of Maryland, College Park, Subgroup Chair

Morning Symposium: Mitochondria and Regulation of the Cellular Energy State

Uwe Schlattner, Swiss Federal Institute of Technology, and *Petra Dzeja,* Mayo Clinic and Foundation, Co–Chairs
Nissim Hay, University of Chicago
Valdur Saks, University Joseph Fourier, Grenoble
William Winder, Brigham Young University

Afternoon Symposium: Systems Biology: Mitochondria are not Alone

Hartmut Wohlrab, Boston Biomedical Research Institute and Harvard Medical School, and *Svitlana Berezhna,* The Scripps Institute, Co-Chairs
Luis A. Nunes Amaral, Northwestern University
Joseph Bass, Northwestern University
**Vamsi Mootha*, Harvard University
Arvind Ramanathan, Broad Institute of Harvard University and Massachusetts Institute of Technology

*Presentation is sponsored by the United Mitochondrial Disease Foundation

Biological Fluorescence

Robert Clegg, University of Illinois, Urbana, Subgroup Chair

Fluorescence in Biological Physics

Marcos Dantus, Michigan State University
Elliot L Elson, University School of Medicine
J. Woodland Hastings, Harvard University
Gerard Marriott, Universtiy of Wisconsin, Madison

(Continued on page 6.)

(Continued from page 5.)

Membrane Biophysics

David Yue, Johns Hopkins Universtiy School of Medicine, Subgroup Chair

Horizons for the Queen of Ion Trasport: Ca_V Calcium Channels

Daniel Minor, University of California, San Francisco
Henry Colecraft, Johns Hopkins University School of Medicine
Gerald Zamponi, University of Calgary
Diane Lipscombe, Brown University
Veit Flockerzi, Universitat des Saarlandes
Richardo Dolmetsch, Stanford Universtiy

Membrane Structure & Assembly

Leonoid Chernomordik, NICHD, NIH Subgroup Chair

Biological Membrane Fusion: Mechanisms and Intermediates

Michael Kozlov, Tel Aviv University
Felix Rey, Institut Pasteur
Gregory Melikyan, Rush College
Yeon-Kyun Shin, Iowa State University
Andreas Mayer, Universite de Lausanne
Xiaowei Zhuang, Harvard University

Onsite Child Care Services

The Biophysical Society sponsors excellent child care, provided again this year by KiddieCorp. The program is for children ages six months through 12 years and will be located at the Salt Lake City Marriott Downtown (directly across the street from the Salt Palace Convention Center). Snacks and beverages will be provided. Meals may be supplied by parents or purchased when checking in each day. The service is available to all meeting registrants, but preregistration is required. The cost is $10.00 per hour, per child (Regular attendees), $7.00 per hour, per child (Postdoc attendees) and $5.00 per hour, per child (Student attendees). There is a 2–hour per-day minimum required. The dates/hours of the children's program are as follows:

Saturday, February 18	8:00AM–6:00PM
Sunday, February 19	8:00AM–6:00PM
Monday, February 20	8:00AM–6:00PM and 7:30PM–MIDNIGHT
Tuesday, February 21	8:00AM–6:00PM
Wednesday, February 22	8:00AM–1:00PM

To access the preregistration form, visit **https://www.kiddiecorp.com/bpskids.htm**.
THE PREREGISTRATION DEADLINE IS JANUARY 19, 2006.

Molecular Biophysics

Cynthia Stauffacher, Purdue University, Subgroup Chair

Biological Membrane Fusion: Mechanisms and Intermediates

Leonid V. Chernomordik, NICHD, NIH
Michael Kozlov, Tel Aviv University
Xiaowei Zhuang, Harvard University
Felix Rey, Institut Pasteur
Yinling Li, University of Virginia
Gregory Melikyan, Rush College
Yeon-Kyun Shin, Iowa State University
Andreas Mayer, Universite de Lausanne

Special Annual Meeting Travel Rates

The Biophysical Society has made special arrangements with United Airlines, Budget Rent-A-Car, and Avis Rent-A-Car for special rates to meeting attendees. When making reservations, refer to the respective meeting ID number for extra savings.

UNITED
800-521-4041
Meeting ID Number: 537TJ

AVIS
800-331-1600
Avis Worldwide Discount Number: J906779

Budget
800-772-3773
Budget Convention Discount Number: U069706

Membrane Biophysics Subgroup

Call for Nominations for the Kenneth S. Cole Award

The Membrane Biophysics subgroup is soliciting nominations for the Kenneth S. Cole Award. This award is given annually to an investigator who has made a substantial contribution to our understanding of membrane biophysics. The award will be presented at the subgroup dinner following the Saturday afternoon symposium. Please note that any member of the Membrane Biophysics subgroup may nominate someone, and the recipient will be selected by the Group Chair and the Advisory Committee. Nominations, containing a brief statement of the qualifications of the nominee, should be received by November 1, 2005.

Nominations may be sent to the Chair (*David T. Yue*), Advisory Committee (*Deborah J. Nelson*, *Colin G. Nichols*, *Barbara E. Ehrlich*, or *Nael A. McCarty*), or subgroup Secretary/Treasurer (*Carol L. Beck*).

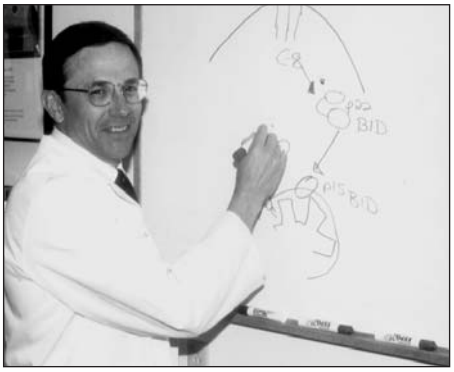
Student Tickets to the Cole Award Dinner

To encourage participation in the subgroup, any student member of the Biophysical Society entering the SRAA student poster competition can receive a free ticket to the Cole Award Dinner. Additional free tickets will be available on a lottery basis to student members who do not enter the poster competition. The deadline for requesting student tickets is January 31, 2006 (send requests to **Carol.Beck@jefferson.edu**).

—*David T. Yue*, Chair and
Carol L. Beck, Secretary/Treasurer

Bioenergetics

The loss of *Stanley J. Korsmeyer*, Harvard Medical School, on March 31, 2005, deeply saddened many in the bioenergetics community, especially those interested in the role of mitochondria in apoptosis. Stan was a giant in the field. His pioneering work revolutionized the field. For several years the Biophysical Society meeting has had a self-assembled session on *Mitochondria and Apoptosis*. This year's session was so groundbreaking that a special issue of the *Journal of Bioenergetics and Biomembranes* (Vol. 37, #3) was devoted to a set of mini-reviews arising from the session. That issue is being dedicated to the memory of Korsmeyer.



Stanley J. Korsmeyer

—*Marco Colombini*, Chair

2005 Annual Meeting Questionnaire Drawing

The winners of a free registration to the 2006 Annual Meeting, drawn from those who completed the 2005 Annual Meeting questionnaire, are *Karoly Jakab* and *Michael Morales*. Thanks to everyone who completed the questionnaire. The information provided will be used when planning future meetings.

Karoly Jakab,
University of Missouri, Columbia. Society member since 2003.

Michael Morales,
State University of New York, Buffalo. Society member since 2001.

Herman R. Branson Summer Course in Biophysics

The 2005 Branson Summer Course in Biophysics, sponsored by the Biophysical Society in collaboration with the National Society of Black Physicists (NSBP), was given at Boston University (BU) from June 16 - July 17, 2005.

Nine promising minority students — seven of them in their sophomore or junior years, two entering graduate school as seniors — were selected from roughly 20 applicants to take part in this five-week course.

The course entailed morning lectures on topics ranging from fundamental principles of thermodynamics and statistics in living systems, to cell physiology, protein structure and function, neurons and neuronal networks, membranes, ion channel mechanisms, molecular motors, and DNA structure. Other activities included seminars by leading biophysicists, discussions on a variety of topics in biophysics, four labs, three computer labs, two field trips in the Boston area, a workshop on preparing and giving scientific seminars, and final seminar presentations by the students on biophysical topics of their choice.

Students hailed from eight institutions of higher learning: Baylor, University of Texas, San Antonio, North Carolina A&T, Florida A&M, University of Puerto Rico, Northwestern University, UCLA, and Oakwood College. The majority of students had a strong background in biochemistry, physics, chemistry, or engineering with a remarkable level of knowledge about protein structure and function. This and the students' high level of intellectual curiosity and active participation in learning made the course a unique and very successful learning experience for students and instructors alike.

The lectures were ably designed and delivered by *Bernie Chasan*, Professor Emeritus of Physics at BU, with the enthusiastic assistance of *Mark Jack*, Assistant Professor of Physics at Florida A&M University, who also ran the computer labs, mentored students with problems/lab reports, and generally assisted Chasan. In addition to lectures and labs, Chasan and Jack led discussions each day on topics such as the origin of life from a biophysics perspective or the meaning of noise in biological systems. Review papers on discussion topics were distributed two days before each discussion. In addition, the students met regularly with Chasan and Jack to discuss problems and plan their final oral presentations.

Clearly, Chasan and Jack worked incredibly hard to make this year's course the success that it was, and they deserve our sincere thanks! In turn both enjoyed their time with this talented group. Jack, who hopes to be involved in this course next summer at Florida A&M University, comments in his course evaluation that working with Chasan and such "a great group of bright young women and men…has truly been one of the personal highlights in my academic and professional career."

Lectures were also greatly enriched by nine seminars and discussions, and associated luncheons, and by invited speakers who captured the excitement of current biophysics research. This sparked enthusiasm in the students and helped them to envision themselves as biophysicists. As an example, a unanimously agreed-upon highlight was the afternoon lab visit to *Horatio Cantiello*'s lab at Massachusetts General Hospital. The students especially enjoyed the hands-on demonstrations, including recording and analysis of electrical data and Cantiello's exposition of the significance of his research. This led one student from Oakwood College to undertake a research project in electrophysiology with a professor at Oakwood. Other seminar speakers and/or discussion leaders were: *George Langford*, Dartmouth College, *Ishita Mukerji,* Wesleyan University, *Karen Allen*, Boston University, *Barry Lentz*, University of North Carolina, *Ken Rothchild*, Boston University, *Jose Rizo-*

Back row from left: *Liz Russell -McKenzie* (Temple University, evaluator); *Jonathan Celli* (Boston University, physics graduate assistant); *Bernard Chasan* (Boston University, lecturer and course author). Front row: *Keri Wakefield*.

Rey, University of Texas Southwestern, *David DeRosier*, Brandeis University, and *Wilma Olson*, Rutgers University. *Liz Russell-McKenzie*, Temple University, the Course Evaluator contracted by the Society, comments that a very significant outcome of the course was that students "felt that they were privileged to have been given the opportunity to interact with researchers in the mainstream of biophysical research and that indeed such careers were not out of their reach." Kudos go to these biophysicists who gave willingly of their time to share their passion for biophysics with these students!

Feedback from the students and instructors was overwhelmingly positive, with the suggestion that a wireless network would have allowed for more time to work on computer programs introduced in the computer labs. Russell-McKenzie is preparing a complete evaluation that will guide us in making this and other improvements in the future.

Also critical to the success of the course was the support and hard work of *Cynthia Brosman*, Interim Director of the BU Learning Resource Network, who organized everything locally such as welcome and final dinners, the seminar luncheons and housing for speakers, and *Jonathan Celli*, BU physics graduate student who served as teaching assistant. The excellent work of *Yvonne Cissel* in the Biophysical Society office is also greatly appreciated. She coordinated advertising and student recruitment, arranged travel for speakers and students, coordinated all aspects of the course with Brosman and Chasan, managed the budget, and saw to ordering of computers and teaching materials. Finally, course funding was arranged by *Keith Jackson*, President of the NSBP, as an NIH-funded supplement to a NSF grant to the NSBP, on which Jackson is PI. We also appreciate the enthusiastic support of *Clifton Poodry,* MORE Program, and *James Cassatt*, Program Administrator, Cell Biology & Biophysics at NIGMS. They not only arranged for funding through the NSBP NSF grant but are helping us plan for possible future funding.

—*Barry Lentz*, Branson Course Director

Herman R. Branson Summer Course

Grace Mbyirukina, Oakwood College, now San Diego State

Stan Chikando, Northwestern University

Back row from left: *Nick Fernandez*, *Quy Tran*, *Stan Chikando*, *Madinah Mohamed*, *Nepkin Osuan*, *Natalie del Hoyo Rivera*. Front row from left: *John Hakizimana* and *Barry Lentz*, course director.

(Continued from page 3.)

Ernest C. Pollard

Although—or perhaps because—he was born in a remote part of China in 1906 to English missionaries, *Ernest C. Pollard* became determined by the age of 11 to become a scientist. His youth in China exposed him to the negative impact that superstition can have on people and on the land in which they live. Science, he believed, could change that.

Pollard graduated from Cambridge University in 1928 where he also received his PhD in nuclear physics in 1932. In an oral history compiled by the IEEE, Pollard noted that he didn't choose nuclear physics; at the time there were simply no other options for him. Luckily, he liked it. He left England to take a position at Yale in 1933. Over the ensuing years, Pollard's research focused on how radiation affects cells and viruses, and on the repairing of radiation-induced cellular damage.

From 1941 to 1945, Pollard worked in the MIT Radiation Laboratory on radar development for use in World War II. He received a patent for Li'l Abner, radar used by the military to determine the altitude of enemies, but worked on many other projects including MEW, the moving target indicator. He later received a Citation of Merit from President *Truman* for his work during WWII.

"Pollard also had the unique ability to obtain grant monies from numerous sources, which enabled his staff and students to research freely."

During that time, Pollard thought about ways to use physical techniques to look at viruses and molecules. He returned to Yale where he founded its department of Biophysics in 1954 and served as its Chair until 1961. There he worked closely with *Richard Setlow*, then an Associate Professor and the Director of Undergraduate Students in both the Physics and Biophysics departments. "It was Ernie's great abilities as a teacher and mentor that led to probably the most successful biophysics department in the world," says Setlow. Later, Pollard moved to Penn State University where also there he founded a Department of Biophysics. Pollard remained at Penn until his retirement in 1971, after which he served as a research scholar at Duke University, University of Florida, and the National Institute of Environmental Health Sciences. Penn State established the Ernest C. Pollard Lecture in his honor.

Together with *Samuel Talbot*, *Kenneth Cole*, and *Otto Schmidt*, Pollard was a member of the Committee of Four that organized the 1957 National Biophysics Conference. *Ellis Kempner*, currently at the NIH, attended that first conference as a graduate student and remembers Pollard's contribution to the Society. "The Biophysical Society wouldn't exist without him," Kempner states, "he was one of the most powerful people in its founding." Pollard went on to serve as Biophysical Society president from 1960-1961, and Executive Council and Board member until 1972.

Founders at the 1981 Annual Meeting in Denver, Colorado. Pictured left to right: *Britton Chance*, *Ernest Pollard*, *A.K. Solomon*, *Andrew G. Szent-Gyorgyi*, *Les Lipitz*, and *Max Lauffer*.

Donald Fluke of Duke University was a graduate student of Pollard's. "Pollard was a deeply cultured, educated, empathetic person, loving music, good conversation, and good company," Fluke says. He is remembered for his efforts to promote science in general and the field of biophysics in particular. He had the ability to make the people around him excited, which came in handy when he was teaching. He considered himself a gifted teacher, and Setlow and others agree, he was that and more.

Pollard also had the unique ability to obtain grant monies from numerous sources, which enabled his staff and students to research freely. "It is obvious to me," says Setlow, "that without Ernie, I would not be where I am today—and the same goes for many other ex-faculty and students." He worked to make science interesting and accessible to all, including non-scientists. He even started a course at Penn State called "*Physics for Poets*."

Pollard also advocated the idea that scientists should become involved in public policy. In addition to his numerous scientific papers, Pollard published a novel in 1988 called *The Cataclysm: Just the Facts*. The novel showed how a group of average, ordinary Americans is capable of assembling, delivering and exploding a nuclear bomb in New York City. The novel went into gruesome detail about the consequences of this action. Pollard hoped that by describing what would happen, he could make the world aware of the horrors of nuclear war. He published his book through his own publishing company, Woodburn Press.

Pollard died of a stroke in 1997 at the age of 90.

Kenneth S. Cole

The Biophysical Society Membrane Biophysics Subgroup awards a medal each year to the winner of the KS Cole Award. The design on the medal shows the simultaneous records of the action potential and impedance change in a squid axon, which was the most famous illustration produced by *Kenneth S. Cole*, known as '*Kacy*' to those closest to him.

Cole was born on July 10, 1900, in Ithaca, New York. From an early age, Cole showed a strong interest in electricity, collecting worn out parts from the local telephone company and manipulating them to produce shocks and sparks. Cole attended Oberlin College, but took some time off to work at the General Electric Research Laboratory in Schenectady, New York. It was at this lab that Cole met *Irving Langmuir*, whose work on surface films at an air-water interface influenced Cole to work on the surface membranes of living cells. Eventually Cole went back to Oberlin, and received his Bachelor's degree in Physics.

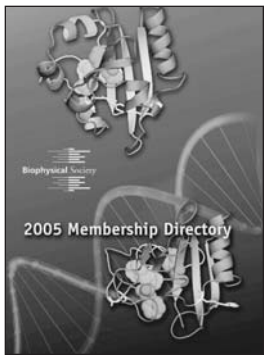
He went on to earn his PhD in 1926 from Cornell University. While at Cornell he developed an electron spectrograph to study the photographic action of electrons. Around that time, Cole began going to the Marine Biological Laboratory in Woods Hole, Massachusetts, where he studied the squid axon. He also worked on heat production by the eggs of the sea urchin Arbacia. Slowly his interests shifted to biological objects that could be investigated by physical techniques, especially electrical. His talent for looking at organisms in this way did not go unnoticed. *William Knox Chandler*, who worked with Cole as a post doctorate from 1959 to 1961, and again from 1965 to 1966 explains that, "He was able to bring physical techniques to biology. He was one of the first people who did that in a specific way."

After receiving his PhD, Cole worked as a post doctorate at the National Research Council. His work there focused on the membrane capacity of sea-urchin eggs. He chose Harvard for his fellowship but continued to visit Woods Hole to conduct his experiments.

In 1929 Cole became an Assistant Professor at Columbia University in the Department of Physiology, and was soon promoted to Associate Professor. He also became a Consultant Physicist at the Presbyterian Hospital. While there, Cole calibrated radiotherapy machines, advised on safety when using cyclopropane as an anaesthetic (there had previously been an explosion in an operating room), overhauled a medical physiology laboratory, lectured, and collaborated with surgeons in developing an operation for aortic aneurysm using an electrically heated wire.

From 1941 until 1942, Cole took leave from Columbia and worked as a Guggenheim Foundation Fellow at the Institute for Advanced Study at Princeton. Still on leave, from 1942-1946, Cole was Principal Biophysicist at

(Continued on page 20.)



Additional 2005 Biophysical Society Members

The names of the members listed below did not appear in the print Directory. Some joined or renewed their membership after the Directory's publication. Several were omitted in error.

Paolo Bianchini, University of Genoa
Olafur Grimur Bjornsson, University of Iceland
Kristine Calloe, Panum Insititute
Valentina Caorsi, University of Genoa
Timothy Causgrove, Texas A&M University, Corpus Christi
Pak-Lee Chau, Institute Pasteur
Kejing Chen, Johns Hopkins University
Wei-Chun Chin, Florida State University
David J. Christini, Weill Medical College, Cornell University
Patrick S. Doyle, Massachusetts Institute of Technology
Ariel Escobar, Texas Technology University Health Science Center
Alessandro Esposito, European Neuroscience Institute
Rainer H.A. Fink, University of Heidelberg
Clare E. Gallon, Washington State University
Ehud Gazit, Tel Aviv University
Whitney A. Hastings, Johns Hopkins University
Ying Hu, Cornell University
Weijun Huang, University of Kansas
XiaoQin Huang, University of Texas
Shin Ishii, Nara Institute of Science Technology
Masayuki Iwamoto, University Fukui
Whittaker W. James, Oregon Health State University
Johnson I. Jutson, Miami University
Young-Kee Kim, Chungbuk National University
Petros Koumoutsakos, ETH Zurich
Stephen Levene, University of Texas, Dallas
Hai-Jui Lin, University of Texas Southwestern Medical Center
Stina J. Lindman, Lund University
Costas D. Maranas, Pennsylvania State University
Davide Mazza, University of Genoa
Kevin McHale, California Institute of Technology
Alan Miller, Touro University
Leonid Mirny, Massachusetts Institute of Technology
Alexander Mogilner, University of California
Christina I. Petersen, Vanderbilt University
Sean Taylor Prigge, Johns Hopkins University
Gopa Rakhit, National Institutes of Health
Dino G. Salinas, University of Diego Portales
Fausto Sanz, University of Barcelona
Ramadan I. Sha'afi, University of Connecticut Health Center
Adam Cohen Simonsen, University of Southern Denmark
Jack Sullivan, University of Buffalo
Setsuo Takatani, Tokyo Medical & Dental University
Thomas M. Truskett, University of Texas, Austin
Giuseppe Vicidomini, University of Genoa
Robert W. Woody, Colorado State University
Feifei Yan, Oregon Health Science University
Chang-Guo Zhan, University of Kentucky, College of Pharmacy

UofTM
UNIVERSITY OF TORONTO *at* MISSISSAUGA
GREAT MINDS FOR A GREAT FUTURE

Tenure-Stream Appointment in Biological Physics

The University of Toronto at Mississauga, Department of Chemical & Physical Sciences, invites applications for a tenure-stream position in Biological Physics at the rank of Assistant Professor, effective July 1, 2006. Applications will be accepted in all areas of biological physics but preference will be given to candidates with research interests in experimental molecular or cellular biological physics. Applicants should possess a Ph.D. in physics, a strong academic background, an excellent research record and potential for excellence in teaching. The successful candidate will be expected to conduct an active and innovative research program and be able to teach physics and biophysics courses at the undergraduate level and their research specialty at the graduate level. Salary will be commensurate with qualifications and experience.

The successful candidate will be located in the Department of Chemical & Physical Sciences, University of Toronto at Mississauga (UTM), and will also be a member of the graduate Department of Physics, University of Toronto. Further information can be found at **http://www.utm.utoronto.ca/cps**.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

Applications will be accepted until November 1, 2005. Applicants should provide a curriculum vitae, a statement of teaching philosophy and interests, an outline of their proposed research, and should arrange to have three confidential letters of recommendation sent on their behalf to:

Professor G.W.K. Moore, Chair,
Biological Physics Search Committee,
Department of Chemical & Physical Sciences,
University of Toronto at Mississauga,
Mississauga, Ontario, Canada L5L 1C6

Opportunities

Burroughs Welcome Fund, Career Awards in Biomedical Sciences
Up to 12 fellowships
Deadline: October 3, 2005
http://www.bwfund.org

Marshall Sherfield Fellowships
Up to two post-doctoral Fellowships
Deadline: October 10, 2005
http://www.marshallscholarship.org/sherfield.html

National Human Genome Research Institute (NHGRI), Mentored Patient-Oriented Research Career Development Award
Up to five consecutive 12-month awards
Deadline: October 20, 2005
http://www.genome.gov/grants/

The IIE Fulbright Graduate Study Abroad Program
Deadline: October 21, 2005
http://www.iie.org/fulbright/

Society Donors

The Society gratefully acknowledges the many 2005 members listed on the following pages who made donations to the Society programs. The donations allow for growth each year in Student and International Travel Grants, Public Affairs, Awards, and other outreach activities.

Ackers, Gary
Adachi-Akahane, Satomi
Adelstein, Robert
Ai, Tomohiko
Akabas, Myles
Alekov, Alexi
Alfonso, Amparo
Allison, William
Alvarez, Osvaldo
Alvarez-de-Toledo, Guillermo
Amuzescu, Bogdan
Anderson, Page
Angsuthanasombat, Chanan
Ansevin, Allen
Antonenko, Yuri
Anumonwo, Justus
Aragon, Sergio
Arcos, Joseph
Ardehali, Hossein
Arrondo, Jose-Luis
Artman, Michael
Asai, Yukako
Ashmore, Jonathan
Atsumi, Tatsuo
Auer, Manfred
Ausio, Juan
Babenko, Andrey
Bahar, Ivet
Baker, Josh
Baker, Mark
Ballou, Edmund
Banaszak, Leonard
Barenholz, Yechezkel
Barg, Sebastian
Barkley, Mary
Barr, Edward
Barrett, Paula
Barrow, Doyle
Barsky, Daniel
Bashford, Donald
Bassereau, Patricia
Bastos, Margarida
Batalia, Michael
Baumann, Bruce
Beattie, Diana
Becker, Michael
Bell, Marcus
Benight, Albert
Bennett, Michael
Bentz, Joseph
Berger, Christopher
Berger, Robert
Berman, Helen
Berneche, Simon
Bershitsky, Sergey
Besch, Henry
Betzel, Christian
Bevan, David
Bezrukov, Sergey
Bialecki, Russell
Birnir, Bryndis
Bito, Virginie
Blackman, Carl
Blank, Paul
Blankenship, Robert
Blumenschein, Tharin
Boggs, Joan
Bogomolni, Roberto
Bolotina, Victoria
Bond, Meredith
Borucki, Berthold
Botelho, Ana
Bottinelli, Roberto
Brancaleon, Lorenzo
Brand, Ludwig
Brandenburg, Klaus
Branton, Daniel
Brasseur, Robert
Brayshaw, Debra
Brennan, Richard
Bressler, Bernard
Brewer, John
Briehl, Robin
Briggs, Margaret
Brodsky, Barbara
Bronner, Felix
Brown, Henry
Brown, Truman
Bruice, Thomas
Buboltz, Jeffrey
Buchet, Rene
Buck, Edmond
Burns, Alan
Burton, Alice
Bustamante, Carlos
Cala, Steven
Campbell, Bruce
Carlsson, Anders
Carlsson, Uno
Carrier, Danielle
Carter, Charles
Castaneda, Carlos
Cha, Boyoung
Chacko, Samuel
Chapman, Edwin
Chen, Pu
Chenevier, Pascale
Cheng, Xiaodong
Chernomordik, Leonid
Chien, Shu
Chin, Jean
Chow, Robert
Christe, Georges
Clapp, Lucie
Clark, Eloise
Clegg, James
Clement-Chomienne, Odile
Cohen, Carolyn
Cole, James
Cone, Richard
Cooke, Ian
Coon, Minor
Cornelius, Flemming
Correa, Ana
Correia, John
Coutinho, Ana
Cowley, Elizabeth
Craig, Roger
Cramer, William
Cremo, Christine
Crothers, Donald
Crowe, John
Cruceanu, Margareta
Csordas, Gyorgy
Cukierman, Samuel
Cupane, Antonio

Directory Erratum

The following 2005 Student Research Achievement Award (SRAA) Recipient was omitted from the publication of the 2005 Membership Directory. We apologize for the oversight.

Bradley C. Akitake, University of Maryland, College Park

Cuppoletti, John
Czech, Michael
Dale, Robert
Davidoff, Amy
Davies, David
Dawson, M. Joan
Debrunner, Peter
Decatur, Sean
Decker, Heinz
Deikus, Gintaras
del Corsso, Cristiane
Delgado, Carmen
Delpon, Eva
Di Iorio, Ernesto
DiFranco, Marino
Dilger, James
Dissing, Steen
Dixon, Clinton
Dobson, Christopher
Dowben, Robert
Dubyak, George
Duclohier, Herve
Dvorak, Lubomir
Dzekunov, Sergey
Edelstein, Stuart
Edwards, Brian
Ehrmantraut, Harry
Eichhorn, Gunther
Eilers, Markus
Elgavish, Gabriel
Elliott, Gerald
Elliott, Richard
Ellis-Davies, Graham
El-Sayed, Mostafa
Elson, Elliot
Engel, Andreas
Englander, S. Walter
Epand, Richard
Erickson, Jon
Ertel, Eric
Eterovic, Vesna
Fahmy, Tarek
Fanelli, Francesca
Fedida, David
Feigenson, Gerald
Felipe, Antonio
Ficker, Eckhard
Fidy, Judit
Finer-Moore, Janet
Finzi, Laura
Fleischman, Darrell
Forgacs, Gabor
Forkey, Joseph
Foskett, J. Kevin
Foster, Kenneth
Francini, Fabio
Franzini-Armstrong, Clara
Frauenfelder, Hans
Frediani, Carlo
Freed, Jack
Freire, Ernesto
French, Robert
French, Todd
Frieden, Carl
Frischknecht, Amalie
Froehlich, Jeffrey
Froehlich, Otto
Fromme, Petra
Fuchs, Paul
Fujimoto, Bryant
Fulbright, Robert
Funsten, Randolph
Furuike, Shou
Fuxreiter, Monika
Galione, Antony
Garcia, Maria
Garidel, Patrick
Garone, Louise
Gaspar, Rezso
Gaspers, Lawrence
Gawrisch, Klaus
Georgevich, Gradimir
Georghiou, Solon
Gericke, Arne
Gershenson, Anne
Gershman, Lewis
Gervais, Patrick
Giedroc, David
Giles, Wayne
Gillespie, Peter
Gilson, Michael
Ginsburg, Ann
Ginsburg, Simona
Golan, David
Goldman, Lawrence
Goldstein, Byron
Goni Urcelay, Felix
Gonzalez, Ruben
Goodwin, Elizabeth
Gradinaru, Claudiu
Grant, Augustus
Gray, Donald
Greeff, Nikolaus
Green, Michael
Greenbaum, Nancy
Greenfield, Norma
Greenwood, Iain
Gropper, Arthur
Gross, Elizabeth
Gruner, Sol
Gruwel, Marco
Grygon, Christine
Guerrero-Hernandez, Agustin
Guilford, William
Gulotta, Miriam
Gummer, Anthony
Gunn, Robert
Gunner, Marilyn
Gutierrez-Merino, Carlos
Hall, Carol
Hamilton, Susan
Han, Sung Sik
Hancox, Jules
Hantgan, Roy
Harvey, Stephen
Hasson-Voloch, Aida
Hatzimanikatis, Vassily
Hayes, Mark
Hazlett, Theodore
Heiss, Arthur
Hellmann, Nadja
Helrich, Carl
Henderson, Richard
Henzler Wildman, Katherine
Herman, Brian
Hermans, Jan
Herzfeld, Judith
Herzog, Walter
Hickel, Andrea
Higuchi, Hideo
Hill, Ceredwyn
Hill, Warren
Hingerty, Brian
Hisatome, Ichiro
Hitchcock-DeGregori, Sarah
Ho, Chien
Ho, Pui
Hockerman, Gregory
Hoek, Jan
Hofmann, Franz
Hofmann, Klaus
Hogle, James
Holtzer, Alfred
Horkayne-Szaicaly, Iren
Hove-Madsen, Leif
Hrabe, Jan
Hristova, Kalina
Hruby, Victor
Hsu, Ian
Huang, Juyang

Hucke, Oliver
Hunt, Alan
Hunter, Christopher
Hunter, Peter
Huxley, Virginia
Iglic, Ales
Ikebe, Mitsuo
Ilyin, Victor
Inubushi, Toshiro
Ishiwata, Shin'ichi
Ito, Takashi
Jakes, Karen
Jakobsson, Eric
Janmey, Paul
Jarrell, Harold
Jen-Jacobson, Linda
Jentsch, Thomas
Jernigan, Robert
Ji, Junzhi
Jiang, Meei
JiJi, Renee
Johnson, Carey
Johnston, Linda
Jonas, Elizabeth
Jordan, Peter
Jorgensen, Kent
Jorgensen, Niklas
Josephs, Robert
Jou, Mei-Jie
Kaback, H. Ronald
Kagan, Bruce
Kahn, Jason
Kamatchi, Ganesan
Kamm, Kristine
Kan, Lou-Sing
Kaplan, Ronald
Karatzaferi, Christina
Karpinski, Edward
Katzer, Michael
Kelly, Melanie
Kemple, Marvin
Kennedy, Brian
Kensler, Robert
Kern, Dorothee
Khorana, H. Gobind
Killian, J. Antoinette
Kim, Seog
Kimura, Junko
Kimura, Yoshiaki
Kinosita, Kazuhiko
Kirk, William
Kirschner, Leonard
Kitazawa, Toshio
Kiyosawa, Keitaro
Kleinhans, Frederick
Knauf, Philip
Knight, Peter
Kobayashi, Sei
Kobayashi, Toshihide
Kochubey, Olexiy
Kockskaemper, Jens
Kodirov, Sodikdjon
Koenig, Bernd
Kolb, Hans-Albert
Komai, Hirochika
Kopito, Ronald
Koppenol, Willem
Korepanova, Alla
Korngreen, Alon
Korolev, Sergey
Kotnik, Tadej
Krauss, Morris
Kreft, Marko
Krimm, Samuel
Kubitscheck, Ulrich
Kuno, Miyuki
Kurata, Yasutaka
Kuryshev, Yuri
Kusumi, Akihiro
Kuznetsov, Yurii
Laakkonen, Liisa
Laaksonen, Aatto
Laggner, Peter
Lakaemper, Stefan
Lambert, Nevin
Langowski, Joerg
Larsen, Delmar
Larsson, Peter
Lauffer, Max
Lavalette, Daniel
Lecar, Harold
Leckband, Deborah
Lecomte, Juliette
Lee, Hon-Chi
Lee, Jong-Kook
Lee, Ka Yee
Leidy, Chad
Lemasters, John
Leuchtag, H. Richard
Levin, Gal
Licht, Stuart
Lichtenberg, Dov
Lindau, Manfred
Linsdell, Paul
Lipicky, Raymond
Lippincott-Schwartz, Jennifer
Liu, Qing-Hua
Logothetis, Nikos
Lohman, Timothy
Lombardi, Vincenzo
Louzao, M. Carmen
Lu, Tong
Ludescher, Richard
Lukyanenko, Valeriy
Macagno, Eduardo
MacDonald, Robert
Macgregor, Roderick
MacKerell, Alexander
Maeda, Yuichiro
Magleby, Karl
Mahmmoud, Yasser
Majima, Toshikazu
Malinowska, Danuta
Malnasi-Csizmadia, Andras
Maloney, Peter
Maluf, Nasib
Mammano, Fabio
Mandel, Frederic
Mansson, Alf
Margulies, Kenneth
Marko, John
Marszalek, Piotr
Marunaka, Yoshinori
Mathew, Mathew
Mathews, Antony
Matsuura, Hiroshi
Mattheis, James
Maughan, David
McCarty, Nael
McIntosh, Thomas
McManus, Owen
McMaster, Terence
McNally, James
McQueen, Alfred
Meer, Daniel
Meiners, Jens-Christian
Meleard, Philippe
Mense, Martin
Merrill, A. Rod
Merski, Matthew
Merz, Alexey
Metherell, Alexander
Michailova, Anushka
Mielczarek, Eugenie
Millar, David
Miller, Keith
Mindell, Joseph
Mirny, Leonid
Misra, Saurav
Mizuuchi, Kiyoshi

Moller, Jesper
Montich, Guillermo
Moore, Peter
Moraczewska, Joanna
Morad, Martin
Moreland, Robert
Mori, Yasuo
Mosbacher, Johannes
Murphy, Richard
Nagle, John
Narla, Mohandas
Naumann, Renate
Navarro, Betsy
Nawrath, Hermann
Nelson, David
Nelson, Deborah
Nerbonne, Jeanne
Newton, Alexandra
Nguitragool, Wang
Nicoll, Debora
Nielsen, Steven
Nishio, Matomo
Nishizaka, Takayuki
Noble, Robert
Nonner, Wolfgang
Nordenskiold, Lars
Novo, David
Nowak, Linda
Nowak, Thomas
Oberg, Keith
Ochi, Rikuo
Ohkura, Masamichi
Ohnishi, Tomoko
Ohta, Yoshihiro
Oiwa, Kazuhiro
Okamoto, Yoh
Okamura, Yasushi
Okumus, Burak
Okun, Ilya
Oldenbourg, Rudolf
O'Leary, Timothy
Ollivon, Michel
Oradd, Gregor
O'Rourke, Brian
Osbakken, Mary
O'Shaughnessy, Ben
Osipenko, Oleg
Ostroy, Sanford
Otto, Michael
Ottolia, Michela
Otzen, Daniel
Owczarzy, Richard
Paddock, Mark
Palmer, Arthur
Pande, Abhay
Pappano, Achilles
Pappu, Rohit
Pardo, Leonardo
Parekh, Anant
Parkinson, W. C.
Parness, Jerome
Partiseti, Michel
Patel, Smita
Pavlin, Mojca
Payne, Richard
Pearson, Wade
Penniston, John
Periasamy, Ammasi
Petrache, Horia
Philipson, Kenneth
Philipson, Louis
Pilarczyk, Goetz
Piston, David
Pla, Salvador
Pocanschi, Cosmin
Pohl, Elena
Polder, Hans Reiner
Pollard, Thomas
Pongs, Olaf
Prendergast, Franklyn
Prestegard, James
Prieto, Manuel
Prummer, Michael
Pugh, Edward
Puglisi, Jose
Pun, Raymund
Rabitz, Herschel
Radermacher, Michael
Raicu, Valerica
Ramanujan, V. Krishnan
Randall, Cynthia
Rapp, Gert
Rastinejad, Fraydoon
Raussens, Vincent
Ravens, Ursula
Rayner, Martin
Reedy, Michael
Reisler, Emil
Reissner, John
Rennie, Katherine
Renstrom, Erik
Reporter, Minocher
Rettig, Jens
Reusch, Rosetta
Rich, Mark
Richards, Frederic
Richardson, Jane
Roche, Camille
Root, Douglas
Rousseau, Eric
Royer, Catherine
Ruff, Robert
Rydqvist, Bo
Sackin, Henry
Salditt, Tim
Salgado, Jesus
Salonen, Emppu
Sanchez-Chapula, Jose
Saroff, Harry
Sarvazyan, Narine
Sasaki, Darryl
Satoh, Hiroshi
Sauer, Markus
Saven, Jeffery
Scarlata, Suzanne
Scheidt, W. Robert
Scheuer, Todd
Schick, Michael
Schild, Laurent
Schmidt, Thomas
Schneider, Donald
Schuetz, Gerhard
Schumaker, Verne
Schurr, J. Michael
Schwartz, Manuel
Schweitzer-Stenner, Reinhard
Scott, H. Larry
Scott, Sean-Patrick
Seelig, Georg
Seeman, Nadrian
Sejnowski, Terrance
Sekatskii, Sergey
Sellers, James
Sennoune, Souad
Serwer, Philip
Setlow, Richard
Shea, Madeline
Sheardy, Richard
Sheets, Erin
Sheppard, Asher
Sherman, Arthur
Shillcock, Julian
Shimizu, Juichiro
Shoham, Menachem
Shrier, Alvin
Siegel, David
Siegel, Edward
Siegelbaum, Steven
Sigworth, Frederick
Simon, Istvan

Sinner, Eva-Kathrin
Sit, Ping-Fai
Siwy, Zuzanna
Skolnick, Jeffrey
Slater, Simon
Smirnov, Sergey
Smith, Jerry
Smith, John
Smith, Virginia
Somerharju, Pentti
Sommer, Joachim
Soni, Smita
Sonnichsen, Frank
Sorenson, Martha
Soria Escoms, Bernat
Sorota, Steve
Sousa, Aurea
Spangler, Robert
Spencer, Christopher
Spencer, Richard
Spiro, Thomas
Spyracopoulos, Leonidas
Srinivasan, A. R.
Srinivasan, Mohan
Stanley, Elise
Stauffacher, Cynthia
Steckert, John
Stein, Richard
Stevens, Charles
Stine, Keith
Stoeckenius, Walther
Stokes, David
Storm, Johan
Straub, John
Straub, Karl
Studenik, Christian
Suarez-Isla, Benjamin
Subramaniam, Vinod
Suda, Norio
Suh, Chang
Sullivan, Jack
Sun, Haihong
Sun, Sean
Sutko, John
Suzuki, Makoto
Svab, Istvan
Szent-Gyorgyi, Andrew
Szoka, Francis
Takai, Akira
Takeshima, Hiroshi
Tamkun, Michael
Tang, Jay
Tateyama, Michihiro
Taylor, Kenneth
Taylor, Richard
Taylor, Susan
Tees, David
Ter Keurs, Henk
Thayer, Kelly
Thomas, T. J.
Thomasson, Kathryn
Tiffert, Teresa
Tinazli, Ali
Tinker, Andrew
Toombes, Gilman
Torok, Katalin
Tosteson, Magdalena
Toyoda, Shinjiro
Trentham, David
Treves, Susan
Tuma, Roman
Tupling, A. Russell
Turner, David
Turner, R. James
Uemura, Matsuo
Ulrich, Anne
Urbauer, Jeffrey
Valenzuela, Carmen
van Grondelle, Rienk
van Oijen, Antoine
Varani, Gabriele
Veenstra, Richard
Veis, Arthur
Vercoutere, Wenonah
Vergani, Paola
Vergun, Olga
Villalain-Boullon, Jose
Villalba-Galea, Carlos
Villegas, Raimundo
Vinogradova, Tatiana
Visser, Antonie
Voelz, Vincent
Vogel, Hans
Volker, Jens
von Hippel, Peter
Wade, Rebecca
Wagner, Michael
Wakabayashi, Katsuzo
Waldron, Gareth
Walsh, John
Wand, Josh
Wang, Yongmei
Wang, Zhiguo
Wasserstrom, J. Andrew
Wazawa, Tetsuichi
Wei, Aguan
Weisel, John
Weliky, David
White, Stephen
Willsky, Gail
Wilson, Bridget
Wilson-Ashworth, Heather
Windhager, Erich
Windsor, William
Winkelmann, Donald
Wohlrab, Hartmut
Woodbury, J. Walter
Woodson, Sarah
Woolley, Andrew
Wotring, Virginia
Wouters, Merridee
Wright, Ernest
Wu, Wen-guey
Wulff, Heike
Xu, Tao
Xu, Yujia
Yamazaki, Jun
Yamazaki, Masahito
Yang, Dongmei
Yasui, Kenji
Ying, Liming
Yoda, Takao
Yonetani, Takashi
Yoon, Tae Young
Yoshimura, Kenjiro
Youmans, Steven
Yount, Ralph
Ypey, Dirk
Yu, Chang-An
Yuan, Jian-Min
Yue, David
Yurke, Bernard
Zablow, Leonard
Zacharias, Martin
Zeitz, Oliver
Zhadin, Nickolay
Zhang, Wei
Zhang, Yang
Zheng, Jie
Zhukovsky, Mikhail
Zimbrick, John
Zlatanova, Jordanka
Zorec, Robert
Zou, Xiaoqin
Zuckermann, Martin

Public Affairs

Energy Bill Includes Boost for Basic Research

Prior to leaving Washington for the month of August, Congress passed an energy bill that the House and Senate have been working on for four years. Included in the 1724 page bill are provisions to increase federal spending on basic research. Specifically, the bill calls for the Department of Energy's Office of Science to increase its budget from $3.6 billion in 2005 to $5.3 billion by 2009. It is important to note that while the bill authorizes Congress to spend that much, it does not have to provide that much money to the Office of Science—that decision is made during the yearly budget process by the appropriations committees.

The bill also creates a new Undersecretary of Science position within the Department of Energy, which supporters say should elevate the role of basic science research within the agency.

Frist Supports Expanded Stem Cell Research

In a surprise move, Senator Majority Leader *Bill Frist* (R-Tenn) announced his support for legislation that would increase federal funding for research on stem cells during a July 29 speech on the Senate floor. The legislation, which has already won the approval of the House, would allow federal support of research on stem cell lines derived from excess embryos resulting from in vitro fertilization procedures.

Despite the backing of the Majority Leader, the future of the legislation remains in doubt. The President has stated repeatedly that he would veto such legislation. He stands behind his policy that federal funding will only be available to researchers working with the 78 cell lines available as of August 2001. Scientists have argued that the policy is too restrictive since only 22 of those 78 lines are actually available; the rest are either contaminated or in private hands.

Bridging the Sciences

The Coalition held its first face–to–face meeting on June 29. The meeting brought together representatives from eleven of the sixteen member societies and gave them a chance to discuss what progress has been made in securing funding for research at the interface of the life and the physical sciences, as well as to strategize next steps. The coalition plans to hold such meetings annually.

Draft Legislation Released for NIH Reauthorization

In July, the House Energy and Commerce Committee released a working draft of legislation that would reauthorize the National Institutes of Health (NIH). The Senate has indicated they would take up the issue if the House makes any progress. Reauthorization is supposed to happen about every five years, but because of the contentious issues that can arise in discussions of the NIH, Congress has not passed a reauthorization bill for the Agency since 1993. Instead, the programs have been authorized to exist for another year when it is given money during the appropriations process annually.

Through the reauthorization process, House Energy and Commerce Committee Chairman *Joe Barton* (R-TX) hopes to improve the agency's management practices. Specifically, Barton has included in his draft the creation of a division of program coordination, planning, and strategic management within the Director's office. This division would be responsible for setting priorities for the NIH as a whole. The draft also increases power in the Director's office by increasing from 1% to 5% the amount of money the Director can transfer between institutes or use for trans-NIH initiatives without Congressional approval.

To improve accountability, the draft legislation calls for the NIH to setup a uniform searchable electronic database of its grants and activities. The NIH must also report to Congress every two years on its activities.

In addition to improving management practices, Barton has also attempted to streamline the appropriations process by grouping the institutes and centers of the NIH into two groups: those that are science-enabling and those that are disease-specific. If this provision were to become law, Congress would appropriate money to these two clusters, which NIH would then divide among the institutes in each cluster. Currently, Congress appropriates money to each of the 27 institutes and centers directly.

Of special interest to the Biophysical Society, the draft legislation includes the creation of a Bridging the Sciences Demonstration Program. Run out of the Director's Office, this program would

fund research at the interface of the life and physical, computational, and mathematical sciences.

The draft, with its focus on management and accountability, does not alter or mention the peer review process, nor does it consolidate the Institutes. The scientific community at large has been slow to react to the legislation publicly, but remains skeptical of change. The Biophysical Society public affairs committee will review drafts as they become available and keep the Society informed of any significant proposals.

Roundup

National Academies of Science: *Ralph Cicerone* assumed the position of President of the National Academies of Science. Cicerone is an atmospheric scientist. His term expires in June 2011.

HHS: The newly minted National Science Advisory Board for Biosecurity (NSABB) held its inaugural meeting at the beginning of July. The NSABB consists of both Board members from the scientific and security communities and ex-officio members representing interested federal agencies. At the first meeting, the Board discussed developing criteria for identifying dual use research & research results, communicating dual use research, codes of conduct, the chemical synthesis of bacterial and viral genomes, and the international perspective on these issues. These five topics became the subjects of working groups for NSABB as it moves forward.

How to Get a First Grant

This is the first in a series of "How to…" topics, outgrowths of discussions held during the Career Roundtable Luncheon sponsored by the Committee on Professional Opportunities for Women (CPOW) at the 49th Annual Meeting of the Biophysical Society held in Long Beach.

One of the greatest challenges a young investigator faces is writing a grant and obtaining the first funding. This was one of the topics of discussion at the Career Luncheon sponsored by the Committee on Professional Opportunities for Women (CPOW) at the Biophysical Society's 49th Annual meeting at Long Beach, California. Biophysical Society members *Robert Clegg*, *Steve Harvey*, *Suzanne Scarlata*, *Lynn Marie Thompson*, and *Andrea Yool*, who have served on study sections and have well established research programs, provided invaluable insight into the process of writing a successful grant. Some of the key points and suggestions made during the discussions are highlighted below.

♦ Preliminary experiments. Don't hesitate to send out a grant, if there is enough data to support the hypothesis and feasibility of the proposed research. Even if the grant is not funded in the first round, feedback from the reviewers can be very helpful.

♦ Controversies in the field. It is important to directly address existing controversies. Don't try to bury them. Reviewers do pay attention to these inconsistencies, so make sure you do a thorough literature survey in the area of proposed research. The best way to address controversy is to show how the proposed research would help clarify the inconsistencies.

♦ Proposed research. The grant should be simple and not overambitious. A first grant from a young investigator should have two to three specific aims. Parallel specific aims are sometimes advisable because the success of the second aim does not depend on the success of the first. On the other hand, there are some excellent proposals where specific aims are hierarchical. One pitfall of sequential aims, however, is that if the first aim is flawed then the proposal is less likely to be funded. In either case, it is essential to think through all the possible problems that might be encountered in the proposed research and outline alternative strategies.

♦ Where to apply. There are many sources of grants including private, state, and federal agencies and foundations. While federal funding is often preferred, smaller grants from state and private agencies may have significantly higher funding rates. For first time investigators, there is no conflict in simultaneously submitting the same proposal to several agencies as long as one lets each funding agency know what is pending elsewhere. If all get funded, take the more generous grant.

(Continued from page 11.)

the Metallurgical Laboratory at the University of Chicago. He also helped on the Manhattan Project, studying the effects of radiation on living things. In 1946, the University of Chicago set up a new Institute of Radiobiology and Biophysics and Cole became Professor of Biophysics and Physiology and head of the Institute. Here he met and worked with *George Marmont*. Together they developed the voltage-clamp apparatus, which Cole used in 1949 to measure the early inward and late outward currents underlying the action potential in squid giant axon.

By the late 50s many biophysicists felt there were no existing scientific societies that catered to their scientific needs. Cole, along with the rest of the Committee of Four (*Otto H. Schmidt*, *Samuel A. Talbot*, and *Ernest C. Pollard*) organized the First National Biophysics Conference in 1957. Cole became an advocate of the Society and went on to be President from 1963-1964. He was also an Executive Board Member in 1961 and an Executive Council Member in 1958 and again in 1962. Cole also helped to establish the International Union of Pure and Applied Biophysics (IUPAB).

"He was able to bring physical techniques to biology. He was one of the first people who did that in a specific way."

In 1959, Cole set up a new Laboratory of Biophysics at the NIH National Institute of Nervous Diseases and Blindness Institute. In 1966, Cole stepped down as head of the lab, but continued to work there as Senior Research Biophysicist. While at NIH, Cole worked with many scientists, including *Clay Armstrong*, a post doctorate at that time. Armstrong says that, "Kacy, was a great experimental scientist. He had colleagues which included, notably, *H.J. Curtis* and *George Marmont*, who were great pioneers in the study of electrical properties of cells."

Cole died on April 18, 1984.

The K.S. Cole Award, established in his honor, is given to those who make advances in the field of Membrane Biophysics.

Molecular Motors: Point Counterpoint

BIOPHYSICAL SOCIETY DISCUSSIONS MEETING
OCTOBER 19–21, 2006
ASILOMAR, CALIFORNIA

The Discussions are small meetings that focus on a cutting-edge or emerging topics in biophysics, topics that benefit from intense discussions. The meetings are patterned after the Farraday Society and have a unique format that stresses discussion over formal presentations. Plenary sessions consist of five-minute presentations by speakers, followed by a lengthy discussion. In addition there are poster sessions. This format allows for greater, less-inhibited participation by participants. Discussions meetings are limited to 150–200 participants and last for approximately three days.

The 2006 Discussions topic will be *Molecular Motors: Point Counterpoint*. Organized by *Sharyn Endow* of Duke University and *Steven Rosenfeld* of Columbia University, *Molecular Motors: Point Counterpoint* will focus on aspects of the motor mechanism, juxtaposing recent findings from the kinesins with those from the myosins and dyneins. Presentations on other motors will be included where relevant. Talks will emphasize mechanistic themes among motors of different families, pointing out differences and similarities. Discussions will focus on findings from biophysical and biochemical approaches, taking into account those from biological and theoretical methods.

Visit the Biophysical Society website, **www.biophysics.org**, for application information and program updates.

BIOPHYSICAL SOCIETY STUDENT HOUSING RESERVATION FORM

February 18-22, 2006 Salt Lake City, Utah

Student Housing Hotel: The Little America Hotel, Courtside Rooms

$95 Single/Double, $110 Triple, $125 Quad, per night plus tax

Housing Opens: August 1, 2005 Deadline for Student Housing: November 4, 2005

IMPORTANT INFORMATION

The Biophysical Society has secured student housing at The Little America Hotel. The Little America Hotel is across the street from the headquarter hotel, The Grand America. All forms should be submitted directly to BPS and the BPS staff will forward this form and deposit to the Salt Lake Convention & Visitors Bureau (SLCVB). All student housing reservation requests must be received by November 4, 2005. There is a standard deposit of $150 per room. This amount will be credited to your stay. The deposit amount is payable by credit card (Visa, MasterCard, Discover, American Express, and Diner's Club) or check (mail only).

1. To make reservations

YOU MUST COMPLETE YOUR STUDENT PREREGISTRATION FIRST.

All Student Housing requests must be sent by mail to:
Student Housing
Biophysical Society
9650 Rockville Pike
Bethesda, MD 20814-3998

Please include:
This completed form.
Check for $150 or credit card information.
Annual meeting student registration receipt.

Confirmations will be sent to the individual indicated in Part 2 via email, if provided.

2. General Information

SEND CONFIRMATION TO:

First Name: _____ Last Name: _____

Company: _____

Address: _____

City: _____ State/Province: _____

Postal Code/Country: _____ Email Address: _____

Daytime Phone: _____ Fax: _____

(If number is not within the US, please provide the entire number the US will need to dial to reach you.)

3. Hotel Information

Occupant's Name(s)	Occupancy (circle one)	
_____	Single – 1 Person	Arrival Date _____
_____	Double – 2 People	Departure Date _____
_____	Triple – 3 People	Smoking _____ Non Smoking _____
_____	Quad – 4 People	ADA requests _____

4. Deposit Information

All hotels require a room deposit of $150. ***Make checks payable to SLCVB Housing Bureau, drawn on US bank.***

Please bill (circle one): Visa MasterCard Discover Amex Diner's Club
(Credit card must be valid through February 2006.)

Credit Card Number: _____ Exp. Date _____

Name as it appears on card: _____

Authorized signature: _____

Room Rates & Taxes: To take advantage of the special BPS student housing rates, please submit this form, payment, and annual meeting registration receipt by November 4, 2005. All rates are per room and are subject to 12.46% occupancy tax (subject to change).

Changes and Cancellations: All changes and cancellations must be made with the SLCVB through February 9, 2006. After February 9, cancellations and changes must be made with The Little America. Reservations canceled within 72 hours of arrival date must be canceled with The Little America and individuals forfeit the full deposit amount of $150. Penalties for early departures are enforced and vary by hotel.

Salt Lake Hotel Accommodations

Indicates TRAX light-rail route.

1 The Grand America Hotel

2 Little America Hotel

3 Hilton Salt Lake City Center

4 Marriott Salt Lake City Center

5 Shilo Inn Hotel

6 Marriott Salt Lake City Downtown

7 Radisson Hotel Salt Lake City Downtown

Make Your Reservations Early

www.biophysics.org

Each year, Annual Meeting attendees are encouraged to make their hotel reservations through a Housing Office/Bureau, found on the Society's website, and to reserve rooms in hotels with which the Society has contracted. This group of hotels is called a "housing block." What is a housing block and why is it important? What is a Housing Office/Bureau and what are the benefits of using one?

A housing block is a group of hotels with which BPS has contracted for a specific number of rooms at competitive nightly rates. Part of the contract includes guarantees for meeting attendees in the event of overbooking, construction, or problems with a room. A Housing Office/Bureau is a central clearinghouse for all reservations in the block. On any day, the Office/Bureau can see how many rooms are available in each hotel and provide the hotels with lists of those who have made reservations. The Office/Bureau immediately takes care of any problems that arise for attendees who have booked through their service.

If, for example, a hotel within the block overbooks and the attendee used the Housing Office/Bureau to secure the room, the attendee is guaranteed either a room at that hotel or very specific and generous compensation. If, on the other hand, an attendee secured a room outside the room block, the hotel is under no contractual obligation to provide a room or compensation. In that scenario, the hotel will always move the outside-the-block attendee.

Filling a room block is important because it provides a "report card" on the Society to future meeting sites. By establishing a history of always filling the room block, the Society is able to secure both competitive room rates and larger blocks of rooms in subsequent years.

The 2006 Annual Meeting, which will be held in Salt Lake City, Utah, will be the Society's 50th Annual Meeting. The Salt Lake Convention & Visitors Bureau will manage the Housing Office for that meeting. The site may be accessed at **www.biophysics.org**.

The Society has contracted with six hotels in Salt Lake City, including The Grand America, which will serve as the headquarters hotel. The Grand America is a five-star hotel, and the Society was able to secure excellent rates for the beautiful rooms. It will be a memorable headquarters hotel for the 50th Annual Meeting. We're looking forward to seeing you in Salt Lake City!

Biophysical Society Volunteer Biographical Sketch

The Biophysical Society Committees are essential to the implementation of the Society's stated purpose to encourage development and dissemination of knowledge in biophysics. Committee members and chairs in all but two of the Society's fourteen committees serve three-year terms, renewable once. All new and continuing committee appointments are approved by Council when it meets each year at the Annual Meeting. Committee members must be current Society members at the time of their appointment. Society members who wish to be considered for a committee appointment are encouraged to submit this form.

Volunteer forms received prior to November 15, 2005, will be considered for appointment in 2006.

I wish to be considered for (indicate office):_____

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

_____

_____

_____

Full name: _____

Highest degree: _____ Year received: _____

Discipline/Field: _____

Institution where degree was received: _____

Present title/department/institution: _____

Research interests and experience:_____

_____

_____

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

_____

_____

_____

_____

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

_____

_____

_____

Signature: _____ Date: _____

Mail or fax completed form to:
Secretary
Biophysical Society
9650 Rockville Pike, Bethesda, MD 20814-3998
301-634-7133

Upcoming Events*

September 21-24, 2005
45th Annual Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC)
Washington, DC
http://www.icaac.org

November 1-3, 2005
International Congress of Nanotechnology 2005
San Francisco, California
http://nanotechcongress.com

November 2-5, 2005
2005 Annual Biomedical Research Conference for Minority Students (ABRCMS)
Atlanta, Georgia
http://www.abrcms.org/

*Please visit **http://www.biophysics.org/** for a complete list of upcoming events.

Biophysical Society
9650 Rockville Pike
Bethesda, Maryland 20814-3998

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