

# Biophysical Society

Newsletter

January/February 2007 Issue

## Table of Contents

Program Chair Message . . . . .	1
Satellite Meetings . . . . .	1
Biophysicist in Profile . . . . .	2
Annual Meeting Highlights . . . . .	5
Discussions . . . . .	15
Membrane Biophysics Subgroup . . . . .	15
Public Affairs . . . . .	16
ABRCMS . . . . .	18
Members in the News . . . . .	19
Travel Awardees . . . . .	21
Satellite Meetings Reg. Forms . . . . .	22
Upcoming Events . . . . .	24

## NEW ONLINE CAREER PLACEMENT SERVICE

A new online placement system with enhanced features for both candidates and employers is available at [www.biophysics.org](http://www.biophysics.org). As a benefit of membership all members are eligible for reduced rates and special packages to post job openings and may post their cv at no cost.

Visit [www.biophysics.org](http://www.biophysics.org) to see the new and improved Career Placement Service.

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## BALTIMORE Feast: NOT FOR THE SMALLER APPETITES



*Felix Goñi*  
2007 Annual Meeting  
Program Chair

Less blasphemous than Belshazzar's, but certainly no less overgenerous; less formal than Louis XIV's repasts at Versailles, but in no way less prodigal; less expensive than a Zagat top-rated restaurant, but guaranteed no less extravagant: such is the biophysical feast that lays ahead of us, and ready to be enjoyed, in Baltimore. All tastes are catered for. If you fancy a good "plat de résistance" you shouldn't miss the National Lecture. If looking for a long and narrow sampling menu, then go for the various symposia and workshops. A light and thoroughly satisfying "dim sum" lunch is served every day at the posters session. Weight watchers needn't worry: most symposia and platforms (except, that is, the ones devoted to membranes!) are virtually fat-free. I particularly recommend the minisymposia for those in search of novel sensations, and the self-assembled platforms for those who mainly enjoy a friendly company. And don't forget that amateur chefs will also be able to spot dozens of new and ingenious culinary gadgets at the Exhibitors' Area.

Such a gargantuan banquet could not have been prepared without the generous advice and help of many members who have contributed their time and ideas to the PC (Professional Chefs, aka Program Committee), at the various stages of the cooking process, including the pre-sorting and sorting sessions.

Now everything is ready and waiting for the Master of Ceremonies to sound the gong: "The 51<sup>st</sup> Annual Meeting of the Biophysical Society is served." Enjoy!

—*F.M. Goñi*

## FRIDAY SATELLITE MEETINGS

There will be two satellite meetings preceeding the Annual Meeting in Baltimore. Both meetings will be held on Friday, March 2.

*Drug Discovery for Ion Channels VII*, sponsored by Molecular Devices, Sophion Bioscience, and Cellectricon 9:00AM - 5:00PM, Room 314

*Regulation of Ion Channels and Transporters by Phosphatidylinositol 4,5-bisphosphate (PIP<sub>2</sub>)*, sponsored by The Journal of Physiology, 12:00 Noon - 5:00PM, Room 316

Registration is required for each. See pages 22-23 for the registration forms or visit our website at [www.biophysics.org](http://www.biophysics.org) for more information.

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## Biophysicist in Profile



**Aldrin Gomes**

By the age of 14, Aldrin Gomes already had a small lab in a tool shed in his back yard. When Gomes' school was selling chemistry sets to the students, he convinced his father to buy one. As his fellow students lost interest, Gomes would buy their sets. "By the time I was 14," he explains, "I had my own little lab at home with over 300 chemicals."

This passion for science has trickled down to influence many people, and his knowledge and contagious energy have made him a respected scientist and valued mentor.

Growing up in his native Port of Spain, Trinidad, with his parents Lionel and Linda, Gomes was one of five children. Although he describes himself as a "quiet child," Gomes was also athletic, winning medals for his running talent. He was also a good student with substantial initiative, which allowed him to excel in both science and art in high school.

Accepted to the very selective University of the West Indies, in St. Augustine, Trinidad, Gomes chose to major in biochemistry. "That was one of the best decisions of my life," he explains. "Just looking at the biology of life was so fascinating; it really helped me to become the person I am now." The British three-year university system practiced in Trinidad proved challenging. Each course required six hours of practical hands-on training, leaving him little

time for anything else. "Those practical courses, I would not substitute for anything in the world," he says, "They helped me learn all the techniques I'd be using in different labs around the world."

After graduating, Gomes taught high school science. "I loved that," he exclaims, adding that "I am a visual scientist so when I taught, I taught with a lot of visual aids and I think students were able to really benefit from that." Although he enjoyed teaching, he felt the need for a greater challenge. "I realized that I needed stimulation and I wanted to do something that would allow me to utilize the curiosity that I was blessed with," he explains.

Returning to the University of the West Indies for graduate work, he studied under Junor Barnes, a British- and Canadian-trained scientist, which was very different from studying under someone trained in Trinidad. "In Trinidad," Gomes explains, "we don't have the same equipment or facilities that are available in America. Chemicals take about three months to reach us, so science is a lot tougher." Barnes still wanted to do first

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**"Chemicals take about three months to reach us, so science is a lot tougher."**

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rate science in Trinidad despite the limitations. Once Barnes felt confident that Gomes had a strong arsenal of scientific skills, he sent Gomes around the world to various labs to gain experience. Gomes trained at the University of Alberta and in Basel, Switzerland, but it was the three months he spent at the University of Calgary that influenced him the most.

"Those three months I spent in Calgary were probably the greatest learning period of my life. I was able to learn so much in that short time there," remembers Gomes. Under the careful guidance of Hans Vogel, currently a professor in the department of Biological Sciences at the University of Calgary, Gomes was thrust into an NMR lab without the benefit of previous NMR experience. There, he was able to learn in three months what would take others years. "It was very tough. I remember many sleepless nights watching

the data, not understanding it," Gomes reminisces. "Once they started showing me how to interpret it, it was like everything went from night to day." Within two months, Gomes was able to publish his data. He credits this experience for the confidence he has today.

Just prior to finishing graduate school, James Potter, currently Professor and Chairman of the Department of Molecular and Cellular Pharmacology at the University of Miami Miller School of Medicine, visited Barnes' lab. "I had only talked to Aldrin, who was a PhD student at the time, for about three minutes when I realized that he had exceptional talents," remembers Potter. "During his PhD work, he did some really nice work under very difficult circumstances, since the laboratories he worked in were not terribly well equipped and his department was very small." A week after this meeting, Gomes received an invitation to be a postdoctoral fellow in Potter's lab. The lab, which studied muscle contraction and calcium-binding proteins, was right up Gomes' alley, so he accepted and moved to Miami.

While the weather remained similar to Trinidad's, the science was very different. "The science was a lot better and the instrumentation that I craved was now available to me," says Gomes. With the instruments and the help of others in the lab, Gomes succeeded rapidly, in large part,

American Heart Association Fellowship and a Muscular Dystrophy Association Fellowship.

rapidly emerging field of proteomics. Gomes saw immense potential for proteomic techniques to further

## Gomes was thrust into an NMR lab without benefit of previous NMR experience. There, he was able to learn in three months what would take others

Gomes' scientific skills proved to be not his only strength. "Aldrin Gomes is also a brilliant teacher," says Potter. "Aldrin really believes in teaching by learning," says Aldrin's former undergraduate student Ansel Amaral, currently a senior at the University of Miami. "Whenever he was teaching me new techniques, he first let me observe him and then I would replicate the procedure." In addition to teaching at the University of Miami, Gomes also worked with high school students in a program called the academic advancement program. "Every year, for the last four years, his students have participated in several national competitions, and in the last two consecutive years, a number of his students have won prestigious awards including the Florida Science Fair," says Potter. But his energy is not only focused on science, notes Danuta Szczesna-Cordary, currently Associate Professor of Molecular and Cellular Pharmacology, Miller School of Medicine at the University of Miami. "As an example of his unstinting behavior, he would make himself available at a moment's notice to help a new lab member to move into his/her new apartment or to help them to get started in the laboratory,"

advance the troponin field and muscle contraction in general. Potter's lab did not have the proper equipment for this new field and Gomes desperately wanted to learn more about it. Potter called Peipei Ping at the University of California, Los Angeles, an expert in the field. "He spoke to



Aldrin Gomes skiing in Taos, New Mexico.

her on my behalf, asked her if she was interested," says Gomes. "She invited me over, we immediately clicked, and she offered me an assistant research professor position in her lab." Aldrin has a great positive influence on the lab mainly because his love for science can be easily seen on a daily basis," says Jun Zhang, a postdoctoral fellow at UCLA. "His love for science is very contagious and motivates other people in the lab." Gomes is one of the best researchers in the field, according to colleague Man-soureh

Eghbali, a research assistant professor at UCLA. "He is very optimistic and he encourages other people not to give up when things are not going well," she says.

(Continued on page 18.)

## "Whenever he was teaching me new techniques, he first let me observe him and then I would replicate the procedure."

according to Potter, because Gomes uses whatever techniques are needed to find an answer. He obtained funding for his work, which focused on the role of troponin in cardiac and skeletal muscle contraction, from an

she says. She does, however, add that such actions do not diminish his scientific passion, which allows him to stay on top of literature in the field.

During his last year in Potter's lab, Gomes became very interested in the

## MEETING SUMMARY

	<b>Saturday</b> MARCH 3	<b>Sunday</b> MARCH 4	<b>Monday</b> MARCH 5	<b>Tuesday</b> MARCH 6	<b>Wednesday</b> MARCH 7
7:30 AM		Postdoctoral Breakfast	Graduate Student Breakfast		
8:00 AM		Placement Service (8:00 AM–5:30 PM)	Placement Service (8:00 AM–5:30 PM)	BPS Business Meeting Placement Service (8:00 AM–5:30 PM)	Placement Service (8:00 AM–12:00 NOON)
8:15 AM		Symposium 1–Calcium Activated Switches  Symposium 2–Biophysics & the Molecular Origins of Life  Platform Sessions A–E	Symposium 7–RNA: Protein Particles  Symposium 8–Intracellular Calcium Dynamics: The Interplay of Experiment & Modeling  Platform Sessions Q–V	Symposium 13–Lateral Membrane Organization & Lipid-Protein Interactions  Symposium 14–Modeling as a Tool in Biophysics ( <i>Organized by the DBP of the APS</i> ) Platform Sessions AI–AN	Symposium 18–Vesicle Dynamics  Symposium 19–Modulation of Primary Sensory Function  Platform Sessions BA–BF
9:00 AM	Bioenergetics Subgroup Molecular Biophysics Subgroup				
10:00 AM	Intrinsically Disordered Proteins Subgroup	Exhibits (10:00 AM–5:00 PM)	Exhibits (10:00 AM–5:00 PM)	Exhibits (10:00 AM–5:00 PM)	
10:15 AM		Coffee Break	Coffee Break	Coffee Break	Coffee Break
10:30 AM		Undergraduate Student Symposia	New Member Welcome Coffee	Panel Discussion–How Will Changes (Perceived & Real) at NIH Affect the NIH Applicant?	
10:45 AM		Symposium 3–Protein Biophysics in Living Cells  Symposium 4– Membrane Transporters  Platform Sessions F–J	Symposium 9– New & Notable  Symposium 10–Molecular Mechanisms of Cell Migration  Minisymposium 2–Calcium Signaling in Neurons Platform Sessions W–AB	Symposium 15– Awards Symposium  Minisymposium 3–Biophysics of Gene Regulation Platform Sessions AO–AT	Symposium 20–The Ribosome as A Molecular Function  Symposium 21–Myosin Motor Mechanism in Muscle  Minisymposium 4–Advances in Ion Channel Structure Platform Sessions BG–BL
11:30 AM	Permeation Transport Subgroup				
12:00 NOON	Motility Subgroup Placement Service (12:00 NOON–7:00 PM)	Career Roundtable Luncheon International Travel Grant Luncheon			
1:00 PM	Membrane Biophysics Subgroup Biological Fluorescence Subgroup Membrane Structure & Assembly Subgroup Exocytosis/Endocytosis Subgroup	Graduate Institution Fair Panel Discussion–Negotiating the Transition to Non-traditional Careers	<i>Biophysical Journal</i> Workshop Session 1: Introductory & Intermediate Users Workshop for Preparing Digital Images for Publication  Panel Discussion–Pedagogical Techniques in Biophysics	<i>Biophysical Journal</i> Workshop Session 2: Advanced Users Workshop for Preparing Digital Images for Publication	Poster Sessions (1:00–3:00 PM) Late Poster Session (1:00–3:00 PM)
1:30 PM			Panel Discussion–Finding Funding for Your Research: Alternatives to NIH	Panel Discussion–Enhancing Collaborations for Faculty at Primarily Undergraduate Institutions (PUI)	
1:45 PM		Poster Sessions (1:45 PM–3:45 PM) Coffee Break	Poster Sessions (1:45 PM–3:45 PM) Coffee Break	Poster Sessions (1:45 PM–3:45 PM) Coffee Break	
2:00 PM			Panel Discussion–How to Recruit & Retain the Best Scientists in Your Department	Panel Discussion–Mentoring & Recruitment of Underrepresented Students	
2:30 PM		Panel Discussion–The Fight over Evolution: Why Should Scientists Care?		Biophysics at NIH & the Future of Medical Research: Views from the NIH Director	
4:00 PM		Symposium 5–Multiscale Phenomena in Biology  Symposium 6–Membrane Asymmetry & Trans- Membrane (Flip-Flop) Motion  Minisymposium 1– Biological Pacemakers Platform Sessions K–P	Symposium 11–Traffic: Regulation of Membrane Traffic in the Secretory and Endocytic Pathways  Symposium 12–RNA & Gene Regulation  Platform Sessions AC–AH	Symposium 16–Nanomachines & Nanotechnologies  Symposium 17–Structural Basis of Voltage Sensing in Ion Channels Platform Sessions AU–AZ	
5:00 PM	Opening Mixer Early Careers Committee Meet & Greet				
6:00 PM		SRAA Poster Competition			
6:30 PM	Student Travel Grant & Minority Biophysicists Awardees Reception				
7:30 PM		Workshop 1–Using Ion Channel Structures to Simulate Their Function  Workshop 2–Fluorescence Fluctuation Spectroscopy  Workshop 3–New Technologies for Networks & Pathways		Workshop 4–Protein Dynamics: Computational & Experimental Approaches  Workshop 5–in vitro Reconstructions of Synaptic Vesicle Fusion & Exocytosis	
8:00 PM			Awards Ceremony & National Lecture		
9:30 PM			Society Reception & Dance		

**BIOPHYSICAL SOCIETY CAREER DEVELOPMENT WORKSHOP SCHEDULE**

Ed Bocko, Jr., will be returning to the Career Placement Center at the Biophysical Society Annual Meeting. Ed will lead career development workshops throughout the meeting. In addition, he will provide one-on-one sessions to review and improve resumes and CVs beginning on Saturday afternoon. The complete workshop schedule is listed below. Appointments for one-on-one sessions will be available on a first-come, first-served basis. Space is limited so sign up early onsite at the Career Placement Center to reserve a spot. Workshops will be held in the Baltimore Convention Center, Room 329. All meeting attendees are invited to attend. We hope you join us in Baltimore!

**March 3-6, 2007****Saturday, March 3, 2007**

1:00-5:00 PM One-on-one Resume Critiques (twelve 20-minute sessions by appointment only)

**Sunday, March 4, 2007**

10:00 AM Creating a Competitive Life Science Resume  
 11:30 AM The Importance of Business Correspondence: Cover, Broadcast and Follow-Up Letters  
 1:30 PM ED's TOP TEN: Ten Ways to Ensure a Positive and Lasting First Impression in the Employment Arena  
 2:30 PM One-on-one Resume Critiques (six 20-minute sessions by appointment only)  
 4:30 PM Interview Basics

**Monday, March 5, 2007**

9:00 AM One-on-one Resume Critiques (three 20-minute sessions by appointment only)  
 10:00 AM Your Job Search: A Sequential Process with Different Goals at Each Step of the Way  
 11:30 AM Uncovering the Hidden Job Market: Tactics That Work  
 1:30 PM Creating a Competitive Life Science Resume  
 2:30 PM Career Open Forum: Career Q&A Session  
 4:00-6:00 PM One-on-one Resume Critiques (six 20-minute sessions by appointment only)

**Tuesday, March 6, 2007**

9:00 AM One-on-one Resume Critiques (three 20-minute sessions by appointment only)  
 10:00 AM So, You Don't Want to Work at the Bench Anymore? Planning your Career Transition in the Sciences  
 11:30 AM ED's TOP TEN: Ten Ways to Ensure a Positive and Lasting First Impression in the Employment Arena  
 1:30 PM The Truth about References and Reference Checking  
 3:00-5:00 PM One-on-one Resume Critiques (six 20-minute sessions by appointment only)

## The Fight Over Evolution: Why Should Scientists Care?

Sunday, March 4, 2:30-4:30 PM  
Room 323

This panel discussion, organized by the Public Affairs Committee and moderated by Jay Labov of the National Academies, will provide attendees with an overview of the political landscape of and modern challenges to the teaching of evolution. The panelists also will discuss what is at stake in the debate over teaching evolution and/or alternative explanations for the origins of life, as well as what the role of research scientists and professional societies should be in this debate. Refreshments will be provided.

Panelists include *Kenneth Miller*, Brown University and expert witness in the 2005 Dove, PA, Intelligent Design Trial; *Jay Labov*, The National Academies; *Gerald F. Wheeler*, National Science Teachers Association; and *Peyton West*, American Association for the Advancement of Science



*Kenneth Miller*



*Jay Labov*



*Gerald F. Wheeler*

## Negotiating the Transition to Non-traditional Careers

Sunday, March 4, 1:00-2:30 PM  
Room 319/320

The popular series, hosted by the Early Careers Committee, will feature panelists who will discuss pathways to non-traditional careers in biophysics such as: 1) working at funding agencies, 2) science lobbying & policy development, 3) consulting, and 4) defense/intelligence/law enforcement. Panelists to be announced.

## Finding Funding for Your Research: Alternatives to NIH

Monday, March 5, 1:30-3:30 PM  
Room 307

This panel, organized by the Early Careers and Public Affairs Committees, will explore government and private funding sources for research. Panelists will describe the grant opportunities and provide information on the application process. The session will focus on alternatives to NIH funding, including the American Heart Association, National Science Foundation, and the Defense Advanced Research Projects Agency (DARPA) at the Department of Defense.

Panelists include *C. William Balke*, University of Kentucky; *Kamal Shukla*, National Science Foundation; *Barbara McQuiston*, DARPA; and an additional panelist to be announced.

## Pedagogical Techniques in Biophysics

Monday, March 5, 1:00-2:30 PM  
Room 319/320

The Education Committee will host this panel to focus on novel methods for biophysics instruction based on alternative pedagogical models involving inquiry methods, case studies, and other techniques. The evolving role of textbooks in lecture-based classrooms will also be discussed. Panelists to be announced.

## How to Recruit and Retain the Best Scientists in Your Department

Monday, March 5, 2:00–3:00 PM  
Room 310

This panel, organized by the CPOW, will present speakers who have been successful in developing and implementing recruitment and retention policies for scientists in academia and industry.

Panelists include *Judith Herzfeld*, Brandeis University, *Gregory Kaczorowski*, Merck Research Laboratories, *Margaret Murnane*, University of Colorado, Boulder, and *J.B. Alexander Ross*, University of Montana.



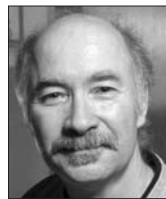
*Judith Herzfeld*



*Gregory Kaczorowski*



*Margaret Murnane*



*J.B. Alexander Ross*

## Enhancing Collaborations for Faculty at Primarily Undergraduate Institutions (PUI)

Tuesday, March 6, 1:30–2:30 PM,  
Room 319/320

This session, hosted by the Education Committee, will be aimed at helping PUI faculty establish successful collaborations. Panel members will consist of PUI faculty with experience in maintaining active research collaborations. Panelists will discuss how to initiate and sustain productive working relationships and the benefits of collaborative projects.

Panelists include *Sean Decatur*, Mount Holyoke College; *Scott Feller*, Wabash College; *Patricia O'Hara*, Amherst College.



*Sean Decatur*



*Scott Feller*



*Patricia O'Hara*

## How will Changes (Perceived and Real) at NIH Affect the NIH Applicant?

Tuesday, March 6, 10:30 AM -12:00 NOON  
Room 319/320

This seasoned panel of experts from the National Institute of General Medical Sciences (NIGMS) and Center for Scientific Review at NIH will lead a discussion on perceived and real changes at NIH and take questions. Topics to be considered include: review and funding, large grants and R01s, innovative and solid research, and new and experienced investigators.

Panelists from the NIH will include *Ravi Basavappa*, *Jean Chin*, *Catherine Lewis*, *John Norvell*, and *Donald L. Schneider*



*Ravi Basavappa*



*Jean Chin*



*Catherine Lewis*



*John Norvell*



*Donald L. Schneider*

## Mentoring and Recruitment of Underrepresented Students

Tuesday, March 6, 2:00–3:30 PM

Room 307

This panel, hosted by the Minority Affairs Committee, will focus on strategies for recruitment and mentoring of underrepresented students. Testimonies from students and experts in the field will inform the discussion of useful recruitment and retention approaches. Tips for effective mentoring of underrepresented students will also be discussed.

Panelists include *Carol Muller*, CEO & President MentorNet and *Jessica Arkin*, National Director, Venture Scholars Program.



*Carol Muller*

## Biophysics at the NIH & the Future of Medical Research: Views from the Director

Tuesday March 6, 2:30-3:30 PM

Room 323

This session will provide a unique opportunity to hear the thoughts of *Elias Zerhouni*, Director of the NIH, on the role of biophysics at the NIH, interdisciplinary research, and the future of medical research. Refreshments will be provided.



*Elias Zerhouni*

## Special Annual Meeting Travel Rates

The Biophysical Society has made special arrangements for those attending the Annual Meeting with the companies below. When making reservations please refer to the respective meeting ID number for extra savings.



800-521-4041

Meeting ID Number: 513ZY



800-654-2240

Meeting ID Number: 987685

## 2007 Abstract Sort

The Society greatly appreciates the members who volunteered their time to sort the abstracts submitted for the 51<sup>st</sup> Annual Meeting, including most of the members of Council. This year 3063 abstracts were sorted into four minisymposia, 58 platform sessions, and four day-long poster sessions. The Society would like to extend a special thank you to the members listed below who joined *Felix Goñi*, 2007 Program Chair, in Bethesda to develop the final schedule.

*Jose Casas-Finet, David Davies, Drake Mitchell, Eduardo Perozo, Rajini Rao, and Abdul Ruknudin*

## ANNUAL MEETING SYMPOSIA, WORKSHOPS, MINISYMPOSIA AND SUBGROUPS

## Symposia

## Sunday, March 4

8:15–10:15 AM, BALLROOM I

## Symposium 1

**Calcium-activated Switches***Madeline A. Shea*, University of Iowa, Carver College of Medicine, Chair

8:15 AM

S100B: A Calcium-activated Switch that Turns off the p53 Tumor Suppressor.

*David J. Weber*, University of Maryland, School of Medicine.

8:45 AM

Calcium-dependent Switching in Calmodulin-IQ Domain Complexes.

*Anthony Persechini*, University of Missouri, Kansas City.

9:15 AM

Computational (and Experimental) Protein Design Studies Based on Calmodulin.

*Stephen L. Mayo*, California Institute of Technology.

9:45 AM

Calmodulin Regulation of Channels and Receptors: A Tale of Two Domains.

*Madeline A. Shea*, University of Iowa, Carver College of Medicine.

8:15–10:15 AM, Ballroom II

## Symposium 2

**Biophysics and the Molecular Origins of Life***Gerald Joyce*, The Scripps Research Institute, Chair

8:15 AM

From Geo to Bio: The Emergence of Chemical Complexity.

*Robert Hazen*, The Carnegie Institution of Washington.

8:45 AM

The Earliest Genetic Polymers.

*Piet Herdewyn*, Katholieke Universiteit Leuven, Belgium.

9:15 AM

Darwinian Evolution in an RNA World.

*Gerald Joyce*, The Scripps Research Institute.

9:45 AM

Toward Cellular Life.

*Jack Szostak*, Harvard Medical School.

10:45 am–12:45 PM, Ballroom I

## Symposium 3

**Protein Biophysics in Living Cells***Tom Kerppola*, Howard Hughes Medical Institute and University of Michigan, Chair

10:45 AM

Visualization of Transcription Factor Interactions, Modifications and Dynamics in Living Cells.  
*Tom Kerppola*, Howard Hughes Medical Institute and University of Michigan.

11:15 AM

Live Cell Imaging of G Protein Signaling Pathways.

*Catherine H. Berlot*, Weis Center for Research, Geisinger Clinic.

11:45 AM

Molecular Mechanisms of Steering in Mammalian Chemotaxis.

*Tobias Meyer*, Stanford University School of Medicine.

12:15 PM

Protein Folding during Polypeptide Chain Elongation.

*Patricia L. Clark*, University of Notre Dame.

10:45 AM–12:45 PM, Ballroom II

## Symposium 4

**Membrane Transporters***H. Ronald Kaback*, UCLA, Chair

10:45 AM

Architecture and Mechanism of Sodium-coupled Transporters.

*J. Eric Gouaux*, Columbia University.

11:15 AM

Searching for the Inside Passage: The Substrate Permeation Pathway of Serotonin Transporter.

*Gary Rudnick*, Yale University.

11:45 AM

Ion-coupled Multidrug Transporters.

*Shimon Schuldiner*, Institute of Life Sciences, The Hebrew University of Jerusalem.

12:15 PM

How to Stop Worrying and Love the Permease.

*H. Ronald Kaback*, UCLA.

4:00–6:00 PM, Ballroom I

## Symposium 5

**Multiscale Phenomena in Biology***Benoit Roux*, University of Chicago, Chair

4:00 PM

Effective Models for Reactive Processes in Large Biomolecular Assemblies.

*Qiang Cui*, University of Wisconsin, Madison.

4:30 PM

Multiscale View of the Hydrophobic Effect.

*David Chandler*, University of California, Berkeley.

5:00 PM

Multiscale View of Molecular Machines.

*George Oster*, University of California, Berkeley.

5:30 PM

Molecular Noise, Cell Behavior and Population Dynamics in Bacterial Chemotaxis.

*Thierry Emonet*, University of Chicago.

4:00–6:00 PM, Ballroom II

## Symposium 6

**Membrane Asymmetry and Trans-Membrane (Flip-Flop) Motion***Philippe F. Devaux*, Institute of Biological Physical Chemistry, Paris, and University Paris 7-Denis Diderot, Chair

4:00 PM

Lipid Asymmetry in Supported Lipid Bilayers: A Combined AFM and Fluorescence Microscopy Study.

*Marjorie I. Longo*, University of California, Davis.

4:30 PM

Membrane Budding Driven by Monolayer Area Asymmetry.

*Michael M. Kozlov*, Tel-Aviv University, Israel.

5:00 PM

P-Type ATPases that Transport Phospholipids.

*Patrick Williamson*, Amherst College.

5:30 PM

Transmembrane Asymmetry and Lateral Domains.

*Philippe F. Devaux*, Institute of Biological Physical Chemistry, Paris and University Paris 7-Denis Diderot.

## Monday, March 5

8:15–10:15 AM, Ballroom I

## Symposium 7

**RNA: Protein Particles***David Draper*, Johns Hopkins University, Chair

8:15 AM

Slicer and the Argonautes.

*Leemor Joshua-Tor*, Cold Spring Harbor Laboratory.

8:45 AM

A Post-Proteomic Approach to Study Assembly of a Machine.

*James R. Williamson*, The Scripps Research Institute.

9:15 AM

Running Rings around RNA: The Role of Ro RNPs in RNA Maturation and Decay.

*Sandra Wolin*, Yale University School of Medicine.

9:45 AM  
Structural and Thermodynamic  
Studies of Ribosomal Protein–RNA–  
Antibiotic Complex.  
*David Draper*, Johns Hopkins  
University.

8:15–10:15 AM, BALLROOM II  
Symposium 8

**Intracellular Calcium Dynamics:  
The Interplay of Experiment  
and Modeling**

*James Sneyd*, University of Auckland,  
New Zealand, Chair

8:15 AM  
Modeling of Synaptic Vesicle  
Dynamics at the Calyx of Held.  
*Erwin Neher*, Max Planck Institute  
for Biophysical Chemistry,  
Gottingen, Germany.

8:45  
Ca<sup>2+</sup> Regulation of Contraction and  
Relaxation of Smooth Muscle of Lung  
Airways and Blood Vessels:  
Experimental Studies Integrated  
by Modeling.  
*Michael J. Sanderson*, University of  
Massachusetts Medical School and  
*James Sneyd*, University of Auckland,  
Australia.

9:15 AM  
Imaging Calcium Signaling and  
Calcium-Dependent Signaling in  
Single Synapses.  
*Karel Svoboda*, Howard Hughes Medical  
Institute, Janelia Farm Research  
Campus.

9:45 AM  
Ca<sup>2+</sup> Waves, Ca<sup>2+</sup> Diffusion and the  
Sarcoplasmic Reticulum.  
*Ernst Niggli*, University of Bern,  
Switzerland.

10:45 AM–12:45 PM, BALLROOM I  
Symposium 9

**New and Notable**

Program information to be announced  
in February.

10:45 AM–12:45 PM, BALLROOM II  
Symposium 10

**Molecular Mechanisms of Cell  
Migration**

*Rick Horwitz*, University of Virginia, Chair

10:45 AM  
A Glimpse into the Cell Migration  
Consortium/Adhesion Dynamics in  
Migrating Cells.  
*Rick Horwitz*, University of Virginia.

11:15 AM  
Integrins, Small GTPases and Cell  
Mechanics in Migration.  
*Martin Schwartz*, University of Virginia.

11:45 AM  
How Keratocytes Crawl.  
*Alex Mogilner*, University of  
California, Davis.

12:15 PM  
Signaling Networks in Chemotaxis and  
Cytokinesis.  
*Peter Devreotes*, Johns Hopkins  
University.

4:00–6:00 PM, BALLROOM I  
Symposium 11

**Traffic: Regulation of  
Membrane Traffic in the  
Secretory and Endocytic  
Pathways**

*Sergio Grinstein*, Hospital for Sick  
Children, Toronto, Chair

4:00 PM  
Self-Organization of Early Secretory  
Compartments.  
*Benjamin S. Glick*, University  
of Chicago.

4:30 PM  
Molecular Analysis of Receptor  
Recycling to the Golgi Complex.  
*Suzanne Pfeffer*, Stanford University.

5:00 PM  
Peroxisomes are Formed by the  
Endoplasmic Reticulum.  
*Henk Tabak*, Utrecht University, The  
Netherlands.

5:30 PM  
Membrane Remodeling during  
Phagocytosis and Endocytosis.  
*Sergio Grinstein*, Hospital for Sick  
Children, Toronto.

4:00–6:00 PM, BALLROOM II  
Symposium 12

**RNA and Gene Regulation**

*Robert Batey*, University of Colorado,  
Boulder, Chair

4:00 PM  
Bacterial Non-coding RNAs Provide  
New Levels of Complexity in  
Regulatory Circuits.  
*Susan Gottesman*, National  
Cancer Institute.

4:30 PM  
Control of Metal Ion Transport by  
Regulatory RNAs.  
*Wade Winkler*, University of Texas  
Southwestern Medical Center.

5:00 PM  
Structural and Biophysical  
Characterization of mRNA  
Riboswitch Aptamer Domains.  
*Robert Batey*, University of  
Colorado, Boulder.

5:30 PM  
Regulation of Gene Expression by  
MicroRNAs  
*Amy Pasquinelli*, University of  
California, San Diego.

**Tuesday, March 6**

8:15–10:15 AM, BALLROOM I  
Symposium 13

**Lateral Membrane Organization  
and Lipid-Protein Interactions**

*Michael Edidin*, Johns Hopkins  
University, Chair

8:15 AM  
Membrane Lateral Heterogeneity in  
Cell and Model Membranes.  
*Ken Jacobson*, University of North  
Carolina, Chapel Hill.

8:45 AM  
Liquid Phases Observed in  
Giant Vesicles.  
*Sarah L. Keller*, University  
of Washington.

9:15 AM  
Caveolae, Cavicles and Caveosomes:  
Dynamics of the Caveolae Membrane  
System.  
*Richard Anderson*, University of Texas  
Southwestern Medical Center.

9:45 AM  
Membrane Heterogeneity and  
Antigen Presentation.  
*Michael Edidin*, Johns Hopkins  
University.

8:15–10:15 AM, BALLROOM II  
Symposium 14

**Modeling as a Tool in  
Biophysics**

*Robert Eisenberg*, Rush University Medical  
Center and Argonne National  
Laboratory, Chair  
(Organized by the DBP of APS)

8:15 AM  
Mechanism of Amyloid-Protein  
Aggregation as Revealed by ab initio  
Discrete Molecular Dynamics.  
*H. Eugene Stanley*, Boston University.

8:45 AM  
Computational Modeling of Mismatch  
Repair Proteins.  
*Fred Salisbury*, Wake Forest University.

9:15 AM  
How Can a Channel Tell Ca<sup>++</sup>  
from Na<sup>+</sup>?  
*Robert Eisenberg*, Rush University  
Medical Center.

9:45 AM  
Gating, Modulation, and Rectification  
in a Large Diameter Abiotic Nanopore.  
*Zuzanna Siwy*, University of  
California, Irvine.

10:15 AM–1:15 PM, BALLROOM I  
Symposium 15

**Awards Symposium**

*Barry Lentz*, University of North Carolina,  
Chapel Hill, Society President, Chair

Titles and order of talks to be announced.

**Avanti Award in Lipids**  
*Klaus Gawrisch*, NIAAA, NIH.

**Margaret Oakley Dayhoff Award**  
*Kalina Hristova*, Johns Hopkins University.

**Founders Award**

*Clara Franzini-Armstrong*, University of Pennsylvania School of Medicine.

**Michael & Kate Bárány Award for Young Investigators**

*Taejip Ha*, University of Illinois, Urbana.

**U.S. Genomics Award for Outstanding Investigator in the field of Single Molecule Biology**

*Howard C. Berg*, Harvard University.

**Distinguished Service Award**

*Ken A. Dill*, University of California, San Francisco

4:00–6:00 PM, BALLROOM I

**Symposium 16**

**Nanomachines and Nanotechnologies**

*Wah Chiu*, Baylor College of Medicine, Chair

4:00 PM

**Engineered Protein Pores for Nanotechnology.**

*Hagan Bayley*, Oxford University, United Kingdom.

4:30 PM

**Computational Design of Protein Parts for Biological Engineering: Application to Nanomedicine.**

*Tanja Kortemme*, University of California, San Francisco.

5:00 PM

**Observing Dynamics of Individual Biomolecules with Single-Molecule Microscopy.**

*W.E. Moerner*, Stanford University.

5:30 PM

**Approaching Nanoscale Force and Geometry-sensing in Normal and Diseased States.**

*Michael P. Sheetz*, Columbia University.

4:00–6:00 PM, BALLROOM II

**Symposium 17**

**Structural Basis of Voltage Sensing in Ion Channels**

*Frederick J. Sigworth*, Yale University, Chair

4:00 PM

**X-Ray Structures and Function of Voltage-dependent Potassium Channels.**

*Roderick MacKinnon*, Rockefeller University, HHMI.

4:30 PM

**Two Scans of Voltage Sensing Motion.**

*Ehud Y. Isacoff*, University of California, Berkeley.

5:00 PM

**Voltage Sensing Mechanisms.**

*Francisco Bezanilla*, University of Chicago.

5:30 PM

**Making Sense of Voltage Sensors.**

*Stephen H. White*, University of California, Irvine.

**Wednesday, March 7**

8:15–10:15 AM, BALLROOM I

**Symposium 18**

**Vesicle Dynamics**

*Robert H. Chow*, University of Southern California, Chair

8:15 AM

**Post-Fusion Vesicle Mobility Regulation.**

*Robert Zorec*, University of Ljubljana, Slovenia.

8:45 AM

**Synaptic Vesicle Recycling and Transport at Hippocampal Boutons.**

*Jurgen Klingauf*, Max Planck Institute for Biophysical Chemistry, Germany.

9:15 AM

**Vesicle Recycling at the Ultrafast Ribbon Synapse in the Inner Ear.**

*Jonathan F. Ashmore*, University College, London, United Kingdom.

9:45 AM

**Vesicle Trafficking and Exocytosis in Retinal Ribbon Synapses.**

*David Zenisek*, Yale University School of Medicine.

8:15–10:15 AM, BALLROOM II

**Symposium 19**

**Modulation of Primary Sensory Function**

*Paul Fuchs*, Johns Hopkins University, Chair

8:15 AM

**TRPV Ion Channels and Peripheral Mechanisms of Pain and Temperature Sensation.**

*Mike Caterina*, Johns Hopkins University.

8:45 AM

**Functional Specialization of Cells in the Taste Bud.**

*Nirupa Chaudhari*, University of Miami School of Medicine.

9:15 AM

**Molecular Origin of Reproducibility in the Rod's Single Photon Response.**

*Fred Rieke*, University of Washington.

9:45 AM

**Mechanisms for Coding Sound at the Hair Cell's Afferent Synapse.**

*Elisabeth Glowatzki*, Johns Hopkins University.

10:45 AM–12:45 PM, BALLROOM I

**Symposium 20**

**The Ribosome as a Molecular Machine**

*Peter B. Moore*, Yale University, Chair

10:45 AM

**Structural Basis for Antibiotic Inhibition of the Bacterial Ribosome.**

*Jamie Cate*, University of California, Berkeley.

11:15 AM

**Studies of 30S Assembly: Conformational Changes and Roles for Ribosomal Proteins.**

*Gloria M. Culver*, Iowa State University.

11:45 AM

**Crystal Structures of Functional States of the Ribosome.**

*V. Ramakrishnan*, MRC Laboratory of Molecular Biology.

12:15 PM

**Kinetic Mechanisms of Substrate Recognition and Selection by the Ribosome.**

*Marina Rodnina*, University of Witten/Herdecke, Germany.

10:45 AM–12:45 PM, BALLROOM II

**Symposium 21**

**Myosin Motor Mechanism in Muscle**

*Malcolm Irving*, King's College London, Chair

10:45 AM

***in situ* Structural Studies of the Myosin Motor.**

*Malcolm Irving*, King's College London, United Kingdom.

11:15 AM

**Kinetic and Structural Studies of Myosin II: Implications for the Muscle Mechanism.**

*Michael A. Geeves*, University of Kent, United Kingdom.

11:45 AM

**Mechanism of the Myosin II Motor: Single Molecule and Single Fiber Studies.**

*Bernhard Brenner*, University of Hannover, Germany.

12:15 PM

**Mechanical, Structural and Biochemical Determinants of Power Output in Muscle.**

*Vincenzo Lombardi*, University of Florence, Italy.

**Minisymposia**

**Sunday, March 4**

4:00–6:00 PM, ROOM 316/317

**Minisymposium 1**

**Biological Pacemakers**

*Donald M. Bers*, Loyola University and *Steven A. Stegelbaum*, Columbia University, Co-Chairs

4:00 PM  
Kinetic Relationship Between The Voltage Sensor and the Activation Gate in spHCN Channels.  
*Peter Larsson*, Oregon Health & Science University.

4:20 PM  
Enhancement of L-Type Calcium Current in Rabbit Sinoatrial Node Pacemaker Cells Exposed to "Ischemia".  
*Richard D. Nathan*, Texas Tech University Health Sciences Center.

4:40 PM  
Sarcoplasmic Reticulum (SR) Ca<sup>2+</sup> Refilling Kinetics Controls the Period of Local Subsarcolemmal Ca<sup>2+</sup> Releases (LCR) and the Spontaneous Beating Rate of Sinoatrial Node Cells (SANC).  
*Tatiana M. Vinogradova*, NIA, NIH.

5:00 PM  
Regulation of Cell Surface Expression, but not Gating, of HCN2 Channels by a Motif in the B-helix of the Cyclic Nucleotide-binding Domain.  
*Hamed Nazzarisedeh*, University of British Columbia, Canada.

5:20 PM  
Spatio-temporal Analysis of GI Pacemaker Electrical Activity.  
*Shinsuke Nakayama*, Nagoya University Graduate School of Medicine, Nagoya, Japan.

5:40 PM  
Reduced Intracellular Coupling Promotes Cardiac Pacemaker Function.  
*John Fahrenbach*, Loyola University, Chicago.

## Monday, March 5

10:45 AM–12:45 PM, ROOM 309  
Minisymposium 2

**Calcium Signaling in Neurons**  
*Helmut Koester*, University of Texas, Austin and  
*Kerry Delaney*, University of Victoria, British Columbia, Canada, Co-Chairs

10:45 AM  
Dwell Time of a Brownian Interacting Molecule in a Cellular Microdomain.  
*Adi Taflia*, Tel Aviv University, Israel.

11:05 AM  
Non-inactivating Calcium Activated Potassium Channels Underlie a Transient Outward Current in Canine Intracardiac Neurons.  
*Fabiana S. Scornik*, Masonic Medical Research Laboratory, New York.

11:25 AM  
Calcium Diffusion in Inhomogeneous Dendrites.  
*Armin Biess*, The Weizmann Institute of Science, Israel.

11:45 AM  
A 3D Model of Calcium Signaling in Cerebellar Purkinje Cells.  
*Sherry-Ann Brown*, University of Connecticut Health Center.

12:05 PM  
Modeling the Kinetics of Single and Clustered IP3 Receptors.  
*Jianwei Shuai*, University of California, Irvine.

12:25 PM  
Potential Influence of Asp in the Ca<sup>2+</sup> Coordination Position 5 of Parvalbumin on the Calcium Binding Affinity: A Computational Study.  
*Shuanghong Huo*, Clark University.

## Tuesday, March 6

10:45 AM–12:45 PM, ROOM 314/315  
Minisymposium 3

**Biophysics of Gene Regulation**  
*Alexander van Oudenaarden*, Massachusetts Institute of Technology and  
*Jose Vilar*, Memorial Sloan-Kettering Cancer Center, Co-Chairs

10:45 AM  
Single Molecule Studies of Archaeal MCM Complex: from DNA Binding to Subunit Interaction.  
*Eli Rothenberg*, University of Illinois, Howard Hughes Medical Institute.

11:05 AM  
DNA Translocation and Loop Formation Mechanism of Chromatin Remodeling by SWI/SNF and RSC.  
*Yongli Zhang*, University of Massachusetts Medical School.

11:25 AM  
Direct Observation of Binding and Unbinding of a Single Transcription Factor Molecule on DNA in a Living Cell.  
*Johan Elf*, Harvard University.

11:45 AM  
Dissecting Gene Expression Using Single Transcript Analysis.  
*Daniel R. Larson*, Albert Einstein College of Medicine.

12:05 PM  
User-Controlled Triggering of the Yeast Cell Cycle to Investigate Coherence and Noise in the G1 Phase Regulatory Module.  
*Gilles Charvin*, Rockefeller University.

12:25 PM  
Imaging Nucleosome Dynamics during Transcription.  
*Christopher J. Fecko*, Cornell University.

## Wednesday, March 7

10:45 AM–12:45 PM, ROOM 314/315  
Minisymposium 4

### Advances in Ion Channel Structure

*Declan Doyle*, Oxford University and  
*Youxing Jiang*, University of Texas Southwestern Medical Center, Co-chairs

10:45 AM  
Substrate-dependent Structural Change of the Phosphatase Domain Slows the Movement of the Voltage Sensor in Voltage-regulated Phosphatases (VSP).  
*Md. Israil Hossain*, Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences, Japan.

11:05 AM  
External K Activation of Kir1.1 Depends on the pH Gate.  
*Henry Sackin*, The Chicago Medical School.

11:25 AM  
Interactions between Lipid Bilayers and Ion Channels: Simulations of KcsA and NaK.  
*Philip Fowler*, University of Oxford, United Kingdom.

11:45 AM  
Divalent Cation Binding and Oligomerization of a Novel Prokaryotic RCK Domain.  
*Karin Abarca-Heidemann*, University of Texas Health Science Center.

12:05 PM  
Cryo-Electron Microscopy of TRP Family Channels.  
*Vera Moiseenkova-Bell*, Baylor College of Medicine.

12:25 PM  
Structure of the Protein Translocase of the Outer Mitochondrial Membrane by Cryo Electron Microscopy.  
*Kirstin Model*, Max-Planck Institute of Biophysics, Frankfurt, Germany.

## Subgroups

### Saturday, March 3

9:00 AM–5:00 PM, ROOM 307

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

### Morning Symposium

#### Structural Biology: Proteomics & Bioenergetics

Session Co-Chairs: *James P. Allen*, Arizona State University, and  
*Edward A. Berry*, Lawrence Berkeley National Laboratory

9:00 AM  
**Structural Genomics: Technologies for All Structural Biologists.**  
*Thomas Terwillger*, Los Alamos National Laboratory.

9:30 AM  
**Crystallization of Integral Membrane Proteins from Photosynthetic Organisms.**  
*Petra Fromme*, Arizona State University.

10:00 AM  
**Crystal Structure of the Hydrophilic Domain of Respiratory Complex I from *Thermus Thermophilus*.**  
*Leonid Sazanov*, Medical Research Council, United Kingdom.

10:30 AM Break

11:00 AM  
**Recent Advances in the Structural Analysis of Bacterial Cytochrome Bc1 Complex and in the Study of Quinone Binding in the Beef Complex.**  
*Chang-an Yu*, Oklahoma State University.

11:30 AM  
**Inter-Protein Electron Transfer Between Cytochrome c2 and the Reaction Center from *Rhodobacter Sphaeroides*.**  
*Melvin Okamura*, University of California San Diego.

12:00 NOON-1:30 PM Lunch

1:30 PM Young Bioenergeticist Award

1:35 PM Short Presentation by the Awardee

## Afternoon Symposium

### The Outer Limits of Bioenergetics: The Mitochondrial Outer Membrane.

Session Co-Chairs: *Marco Colombini*, University of Maryland, and *Carmen Mannella*, Wadsworth Center, New York State Department of Health.

1:45 PM  
**NMR Studies of the Structure and Interactions of Human VDAC1.**  
*Thomas Malia* and *Gerhardt Wagner*, Harvard University.

2:15 PM  
**Mitochondrial Dynamics: Fission and Fusion.**  
*Robert Jensen*, Johns Hopkins University School of Medicine.

2:45 PM  
**Mitochondrial-ER Interactions and Calcium Signaling.**  
*Gyorgy Hajnoczky*, Thomas Jefferson University.

3:15 PM Break

3:45 PM  
**Permeabilization of the Outer Membrane by Ceramide Channels.**  
*Marco Colombini*, University of Maryland.

4:15: PM  
**The Role of Mitochondrial Carrier Homolog 2 in Regulation of Apoptosis.**  
*Atan Gross*, Weizmann Institute, Israel.

5:00 PM Business Meeting

7:00 PM Subgroup Dinner

9:00 AM-1:30 PM, ROOM 308  
**Molecular Biophysics Subgroup**  
*Peter Hinterdorfer*, University of Linz, Austria, Subgroup Chair

### Single Molecular Recognition and Unfolding Forces

9:00 AM  
**Introduction.**  
*Peter Hinterdorfer*, Johannes Kepler University of Linz, Austria.

9:10 AM  
**Using Forward and Reverse Dynamic Force Spectroscopy to Explore Unfolding and Refolding Kinetics of Poly-Spectrin Domains.**  
*Evan Evans*, University of British Columbia, Canada.

9:40 AM  
**Unfolding Single Protein Molecules with Optical Tweezers.**  
*Carlos Bustamante*, University of California, Berkeley.

10:10 AM  
**Measuring Protein Energy Landscape Roughness by Single Molecule Force Spectroscopy.**  
*Ziv Reich*, Weizmann Institute of Science, Rehovot, Israel.

10:40 AM  
**Mechanical Control of Protein Folding and Unfolding Pathways.**  
*Matthias Rief*, Munich University of Technology, Germany.

11:10 AM Break

11:30 AM  
**Detecting Molecular Interactions that Activate and Inhibit the Function of Membrane Proteins.**  
*Daniel Müller*, Dresden University of Technology, Germany.

12:00 NOON  
**Intermolecular Forces of Leukocyte Adhesion Molecules.**  
*Vincent Moy*, University of Miami.

12:30 PM  
**Developing Ligands for Recognition Imaging.**  
*Stuart Lindsay*, Arizona State University.

1:00 PM  
**Recognition Force Microscopy: Applications to DNA, Proteins, and Cells.**  
*Peter Hinterdorfer*, Johannes Kepler University of Linz, Austria.

10:00 AM-6:00 PM, ROOM 323  
**Intrinsically Disordered Proteins Subgroup**  
*A. Keith Dunker*, Indiana University, Interim Subgroup Chair  
 Session Co-Chairs: *Vladimir Uversky*, Indiana University School of Medicine and *Richard Kriwacki*, Saint Jude Children's Research Hospital.

10:00 AM Business Meeting

12:00 NOON Break/Lunch

1:00 PM  
**Plenary Lecture I**  
*Vladimir Uversky*, Indiana University School of Medicine, Chair

1:00 PM  
**Protein Intrinsic Disorder, Cell Signaling, and Alternative Splicing.**  
*Keith Dunker*, Indiana University School of Medicine.

1:45 PM  
**Intrinsically Disordered Proteins in vitro and in Living Cells.**  
*Gary Pielak*, University of North Carolina, Chapel Hill.

2:15 PM  
**Structure and Disorder in Proteins.**  
*George Rose*, Johns Hopkins University.

2:45 PM  
**Moonlighting by Disordered Proteins.**  
*Peter Tompa*, Hungarian Academy of Sciences, Budapest.

3:15 PM Coffee/cookie break

3:45-6:00 PM  
**Plenary Lecture II**  
*Richard Kriwacki*, St. Jude Children's Research Hospital

4:30 PM  
**Structural Disorder within the Replicative Complex of Measles Virus: Functional Implications.**  
*Sonia Longhi*, Centre National De La Reserche Scientifique, Marseille, France.

5:00 PM  
**Insights into Protein Structure and Function from Disorder-Complexity Space Analysis.**  
*Jan Hob*, Johns Hopkins University School of Medicine.

5:30 PM  
**The Roles of IDPs in Cell Cycle Regulation and Tumorigenesis.**  
*Richard Kriwacki*, Saint Jude Children's Research Hospital.

7:30 PM

**IDP Subgroup Dinner**

Location and cost to be determined. All are welcome.

11:30 AM–1:00 PM, ROOM 319/320

**Permeation/Transport Subgroup***Benoit Roux*, Cornell University, Subgroup Chair

## Speakers

*Carola Humte*, Max Planck Institute, Frankfurt, Germany*Guillaume Lamoureux*, University of Pennsylvania.

Additional speakers to be announced.

12:00 NOON–9:00 PM, ROOM 314/315

**Motility Subgroup***Josh E. Baker*, University of Nevada, and *Enrique De La Cruz*, Yale University, Subgroup Co-Chairs**Session I**

12:00 NOON

Session Overview

12:10 PM

**Spectroscopic Probes of Actomyosin Dynamics.***David D. Thomas*, University of Minnesota.

12:40 PM

**Complexes and Complexity of Actin and Cofilin.***Emil Reisler*, UCLA.

1:10 PM

**Mechanisms of Conventional Kinesin Action and Inaction.***Sarah Rice*, Northwestern University.

1:40 PM

**Student Poster Highlights I**

2:00–2:30 PM Break

**Session II:**

2:20 Business Meeting

2:50 Session Overview

3:00

**Regulation and Control of a Membrane-associated Myosin.***E. Michael Ostap*, University of Pennsylvania.

3:30

**Motor Proteins under Load.***Matthias Rief*, Technischen University, München, Germany.

4:00

**Biochemical Dissection of Motor Functions of Cytoplasmic Dynein.***Kazuo Sutoh*, University of Tokyo, Japan.

4:30 PM Student Poster Highlights II

5:00 PM Dinner Break

8:00 PM

Title to be announced.

*Jim Sellers*, NIH/NHLBI.

1:00–6:00 PM, ROOM 316/317

**Membrane Biophysics Subgroup***Nael A. McCarty*, Georgia Institute of Technology, Subgroup Chair**Reducing Reductionist Thinking: Biophysical Approaches to the Study of Membrane Protein Assemblies***Nael A. McCarty*, Georgia Institute of Technology, Chair

1:00 PM

**Introduction***Neal A. McCarty*, Georgia Institute of Technology.

1:05 PM

**Multiplexing Bioluminescence and Fluorescence Resonance Energy Transfer Approaches to Probe G Protein-coupled Receptor Mediated Signaling in Living Cells.***Michél Bouvier*, University of Montreal, Canada.

1:40 PM

**Molecular Mechanisms of Transmembrane Signaling, Adaptation, and Kinase Regulation in Bacterial Chemosensing.***Joe Falke*, University of Colorado.

2:15 PM

**The ATP-sensitive Potassium Channel as a Macromolecular Complex.***William A. Coetzee*, NYU School of Medicine.

2:50 PM

**The Molecular Machine for Excitation-Contraction Coupling: Probing the Spatial Interrelationships of its Protein Components.***Kurt Beam*, Colorado State University.

3:25 PM

**Structural Studies of Human Leukotriene C<sub>4</sub> Synthase by Electron Crystallography.***Inga Schmidt-Krey*, Georgia Institute of Technology.

4:00 PM

**Refreshment Break and Subgroup Business Meeting.**

4:35 PM

**Multiscale Modeling of Protein Complexes.***Jianpeng Ma*, Baylor College of Medicine

5:10 PM

**Finally: Two Peptide Toxins that Inhibit Chloride Channels.***Nael A. McCarty*, Georgia Institute of Technology

5:45–5:50 PM Concluding Remarks

6:30 PM Subgroup Dinner and K.S. Cole Award Presentation

1:00–6:00 PM, ROOM 310

**Biological Fluorescence***Ari Gafni*, University of Michigan, Subgroup Chair**Applications of Fluorescence from Single Molecules to Cells***Ari Gafni*, University Michigan and *Robert Clegg*, University of Illinois, Co-Chairs

1:00 PM

**Radiationless Energy Transfer (BRET) Alone Cannot Account for a Color Shift in Bacterial Bioluminescence.***Woodland Hastings*, Harvard University.

1:35 PM

**Voltage-Sensitive Hemicyanine Dyes - Spectroscopy, Staining and Stark-Phase Microscopy.***Peter Fromherz*, Max Planck Institute, Germany.

2:10 PM

**Mapping Structure and Dynamics in Protein Collapse with Single Molecule Spectroscopy.***Benjamin Schuler*, University of Zurich, Switzerland.

2:45 PM Break

3:10 PM Subgroup Business Meeting

3:40 PM

Title to be announced.

*Norbert Scherer*, University of Chicago.

4:15 PM

**Two-Dimensional Electronic Spectroscopy of Photosynthetic Complexes.***Graham Fleming*, University of California, Berkeley.

4:50 PM

**Young Fluorescence Investigator Award**

5:00 PM

**Gregorio Weber Award for Excellence in Fluorescence Theory and application.**

5:10 PM

**Gregorio Weber Award Lecture.****New for 2007:  
Society Membership  
Cards**

Beginning in 2007, Society Members will receive a Biophysical Society membership card. Cards will contain a member's ID number and important membership information. Look for your membership card to arrive in February.

## 2006 Biophysical Discussions

The 2006 Biophysical Society Discussions, entitled *Molecular Motors: Point Counterpoint*, was held October 19-22, 2006, at the Asilomar Conference Center in Pacific Grove, California. This was the tenth such meeting since the founding of the Biophysical Society in 1957 and the first to focus on molecular motors since 1994, the year that the Discussions meeting was organized by Roger Cooke. The format of the 2006 Discussions more closely followed the original Discussions meetings (1979-1994) in that the presentations by the session Chairs and Speakers were limited to ~10 minutes — they were intended to provide a framework for discussion of work relevant to specific problems in the field, rather than to present extensive data, leaving the bulk of the session time for exchange of ideas by meeting participants.

The goals of the meeting were to clarify conceptual advances in understanding molecular motor function and their cellular roles, and highlight outstanding problems that need to be resolved for the field to advance. The session topics ranged from motor stepping mechanisms, force generation and directionality to regulation and cellular function. Although the focus was on cytoskeletal motors, the myosins, kinesins and dyneins, less traditional motors (ribosomes, actin polymerization motors, helicases, ion channels) were included throughout the sessions as a counterpoint to the cytoskeletal motors. The ~160 meeting participants consisted both of theorists and experimentalist. They came from diverse scientific fields and were at all career stages, including established investigators, young PIs, post-docs and students.

Highlights of the meeting were the spirited discussions that followed the speaker presentations during several of the sessions. Several of the

Chair and Speaker presentations were outstanding, and the discussions that followed were insightful and clarifying. A key concept in the field, the motor stroke versus step size, was clarified. Other important concepts, including unifying themes underlying motor directionality and the structural basis of strain, were touched on. A final session focused on the new frontier of motors in the cell and approaches to their study. Two lively poster sessions were held during the meeting, in which important new findings were presented. The 2006 Discussions meeting sessions and exchange/debate at the poster sessions almost certainly propelled work in the field forward.

The Study Book of Chair and Speaker papers that was made available to all meeting participants prior to the meeting and served as the basis for discussion during the sessions, is now available at <http://www.biophysics.org/discussions/2006/study-book.htm> It includes poster abstracts that were presented during the meeting. A meeting wrap-up paper by Joe Howard that highlights conceptual advances, unresolved questions and future goals has recently been added to the Study Book. Streaming videos and podcasts of the meeting sessions are now posted at the site. The videos can be viewed using Windows Media Player on PC or Macintosh computers. A new feature on the 2006 Discussions website is a message board designed to encourage continuation of the discussions that began in Asilomar.

The Biophysical Society and Chairs and Organizing Committee of the 2006 BPS Discussions greatly appreciate the support by the following meeting sponsors:

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—*Sharyn Endow*, Co-Organizer

## Subgroups

### Membrane Biophysics

#### Lester Named 2007 KS Cole Awardee



*Henry Lester*

*Henry A. Lester*, the Bren Professor of Biology at the California Institute of Technology, will be the recipient of the 2007 KS Cole

Award presented by the Membrane Biophysics Subgroup. Lester will be honored at the Subgroup's dinner on March 3, 2007, at the beginning of the Annual Biophysical Society Meeting in Baltimore. The dinner and award ceremony will be held in the Doric Room at the nearby Tremont Grand Meeting Facility, beginning at 6:30 PM, immediately following the Subgroup Symposium.

The Cole Award is given in honor of Kenneth S. (Kacy) Cole, recognizing an individual who has made significant contributions to the field of membrane biophysics. Henry Lester's research into structure/function of ion channels, neurotransmitter transporters, and receptors, and his efforts to develop innovative approaches for the study of these macromolecules, have advanced the fields of molecular neurobiology and membrane physiology.

Friends and colleagues of the honoree and members of the Subgroup can purchase tickets for the dinner and award ceremony for \$45 by contacting the Subgroup secretary/treasurer, *Carol Beck* (carol.beck@jefferson.edu).

To encourage participation in the Subgroup, free tickets to the Subgroup dinner and award ceremony are once again being offered to any student member of the Biophysical Society who enters the SRAA student poster competition. Additional tickets will be available on a lottery basis to student members who do not enter the competition. The deadline for students to request free tickets is January 31, 2007. Students should contact Carol Beck to be included in the lottery.

— *Nael A. McCarty*, Subgroup Chair  
— *Carol L. Beck*, Secretary/Treasurer

## Public Affairs

### NIH Reauthorization Bill Approved; Bridging Program Created

The House and Senate agreed to a bill to reauthorize the National Institutes of Health through 2009. The bill includes a demonstration program for Bridging the Sciences, a program the Biophysical Society has advocated for through its Bridging the Sciences Coalition.

Key provisions of the bill include:

#### *Authorization Levels*

The bill authorizes the NIH to receive up to a 7% increase for fiscal year 2007, an 8% for fiscal year 2008, and "such sums as may be necessary" for fiscal year 2009. The authorizations set a cap, but do not require the appropriators to provide the NIH with the full increase each year. The NIH's 2007 budget will likely be the same as 2006.

#### *Agency-wide Reporting System*

The bill creates a new electronic reporting system that will catalogue all of the research activities of the NIH in a standardized format.

#### *"Common Fund"*

The bill establishes a "common fund" to provide a permanent funding mechanism for trans-NIH research projects. The common fund is a reserve account, and institutes, centers, and independent investigators advancing trans-NIH research may compete for these funds. The amount reserved for the common fund may not be less than the percentage reserved during the previous fiscal year. Once the common fund reaches 5% of the total NIH budget, the Director of the NIH in consultation with an advisory council, must submit recommendations to Congress on changes to the amount reserved for the common fund.

#### *Strategic Planning Process*

The bill establishes a formal strategic planning process for the entire research portfolio of NIH that transcends the research planning activities of individual institutes and centers through the establishment of the Division of Program Coordination, Planning and Strategic Initiatives. The bill does not change the authority of individual institutes and centers to conduct their individual planning, priority setting and research activities.

#### *Scientific Management Review Board*

The bill establishes a public process for a scientific management review board to evaluate the structure of NIH at least once every seven years. The board must make its first report to Congress within 18 months of the date of enactment of the bill, and may recommend creation, elimination, or consolidation of specific institutes, centers, or Offices in the Office of the Director.

#### *Limitations on the Size of the NIH*

The bill limits the overall size of the NIH to 27 institutes and centers.

#### *Bridging the Sciences*

##### *Demonstration Program*

The bill authorizes the Secretary of Health and Human Services, acting through the Director of the NIH, in consultation with other agency directors, to award grants for demonstration projects at the interface between the biological, behavioral and social sciences with the physical, chemical, mathematical and computational sciences.

## Science on 110th Congress Agenda

More money for stem cell research is one of the top items on the Senate agenda for 2007. Senate Majority Leader Reid (D-NV) told the Associated Press that stem cell research was one of the areas he planned for the Senate to act on early in 2007. On the House side, Speaker Nancy Pelosi (D-CA) has also included stem cell research funding in her agenda for the first 100 hours of the new Congress.

More funding for stem cell research was passed by both the House and Senate last summer, but vetoed by the President. The same could happen to any new legislation passed this year, unless the Senate has enough votes to override a Presidential veto.

Beyond stem cell research, the new leadership has not prioritized other science policy issues. Pelosi has included innovation legislation similar to that considered by Congress in 2006 in her legislative plans for later in the session.

## Congressman Boehlert Sticks with Science

Retiring Representative Sherwood Boehlert, (R-N.Y), outgoing chairman of the House Science Commit-

tee, plans to continue working on science issues after leaving Congress. Boehlert, who has served in the U.S. House of Representatives for 24 years and was Chairman of the Science committee for six years, will join the Woodrow Wilson International Center for Scholars in January as a visiting scholar. Boehlert will focus on education, environment and energy issues as well as science policy.

The Center established by Congress in 1968 and headquartered in Washington, D.C. is a nonpartisan institution, supported by public and private funds. The mission of the Center is to commemorate the ideals and concerns of Woodrow Wilson by providing a link between the world of ideas and the world of policy and fostering research, study, discussion, and collaboration among a full spectrum of individuals concerned with policy and scholarship in national and world affairs.

## Year Long Continuing Resolution Planned

Congress deferred passage of the Fiscal Year 2007 appropriations bills that fund the National Institutes of Health, the National Science Foundation, and the Department of Energy, among other agencies, until the new year. Prior to their adjournment on December 9, Congress passed a continuing resolution that will fund these agencies through February 15, 2007.

Representative David Obey (WI) and Senator Robert Byrd (WV), incoming Chairmen of the House and Senate Appropriations Committees, announced that they will seek to pass a long-term continuing resolution to fund all 2007 appropriations through the end of the fiscal year (September 30, 2007), except Defense and Homeland Security, which Congress passed this fall. Rep. Obey and Sen. Byrd indicated they would try to increase funding levels for select labor, health and education programs.

Rep. Obey and Sen. Byrd also announced a moratorium on all earmarks until new standards for transparency and accountability are in place. Earmarks in the unfinished 2007 bills will be eligible for consideration in the 2008 process, but subject to the reforms. Earmarks are specific projects that Senators and Congress-man have attached to the appropriations bills each year to benefit their districts.

While the final budget numbers are uncertain, in general, the continuing resolution places a strain on federal agencies, especially those that were slated for an increased budget in 2007. For example, the Department of Energy Office of Science was expecting a 14% increase in its budget for 2007, which is now unlikely to happen.

In response to the announcement by Rep. Obey and Sen. Byrd, the NIH issued a Notice providing guidance to the extramural community about the agency's Fiscal Operations Plan for FY 2007 on December 15. According to the notice, inflationary adjustments will not be made for non-competing renewal awards and current grants scheduled for an inflationary increase. Institutes and centers (ICs) will have the flexibility to supplement these awards on a case by case basis.

The money saved by not funding inflationary increases will be used to maintain the stability of the NIH investigator pool by reaching approximately 9600 new and competing Research Project Grants, a number similar to that of FY 2005. Special attention will be paid to those who are new investigators, applicants applying for their first renewals, or grantees with insufficient support from other sources with review scores near the nominal payline of the relevant IC.

As of press time, the National Science Foundation and other agencies had not issued a notice on their plans to cope with a year long continuing resolution.

## Four New Members Join NIBIB Advisory Council

The National Institute of Biomedical Imaging and Bioengineering (NIBIB) appointed four new members to its Advisory Council. The Council serves as the principal advisory body to NIBIB, a component of the National Institutes of Health. The Council, which meets three times a year, provides recommendations on the conduct and support of biomedical imaging and bioengineering research and research training.

Members of the Advisory Council, drawn from scientific communities, are appointed for 4-year terms, and represent all areas within the Institute's research mission.

The new Advisory Council members are:

- *Rebecca Mary Bergman*, Vice President of Science and Technology at Medtronic, Inc,
- *Richard Lorne Ehman*, member of the Mayo Clinic Board of Governors and Professor of Radiology at the Mayo Clinic College of Medicine,
- *Katherine Whittaker Ferrara*, Professor and Chair of Biomedical Engineering in the Department of Biomedical Engineering, University of California, Davis, and
- *David Satcher*, Director of the Center of Excellence on Health Disparities and the Poussaint-Satcher-Cosby Chair in Mental Health at Morehouse School of Medicine.

NIBIB is dedicated to improving human health through the integration of the physical and biological sciences. The research agenda of the NIBIB seeks to dramatically advance the Nation's health by improving the detection, management, understanding, and ultimately, the prevention of disease.

## Congress Extends Protection for Animal Research

In the fall, the House approved the Animal Enterprise Protection Act, S.3880, which punishes animal rights activists that threaten scientists conducting animal research. The bill extends the current protection, which included damage to animal research organizations, farms, zoos, and pet stores, to insurance companies, investment firms, and law firms that conduct business with animal researchers. Those convicted under the law of "harassing, intimidating, trespassing against, or vandalizing the property of anyone associated with animal research" would face jail time. It is expected that the bill will be signed into law by President Bush. Animal rights groups oppose the bill and say it infringes on their right to free speech.

## BPS at ABRCMS 2006

The Annual Biomedical Research Conference for Minority Students (ABRCMS) was held in Anaheim, California, November 8-11, 2006. Two members of the Minority Affairs Committee (MAC), *Don Rufus Ranatunga* and *Lydia Sohn*, attended this conference as exhibitors to represent the Biophysical Society. In addition, *Ishita Mukerji*, Chair of MAC, attended the conference and served as an on-site judge for the student poster presentations. Stephen Mayo, another MAC member, delivered a lecture sponsored by the Society on Designing Novel Proteins for Applications from Research to Medicine. The lecture focused on the development and application of computational design methods that are transforming the protein engineering field. The talk

was well received by many scientists as evidenced by the number of attendees. Mayo also served as a panelist in one of the Plenary Professional Development Sessions on Career Pathways and Opportunities.

The Society exhibit booth displayed materials and information about graduate and undergraduate programs as well as summer research opportunities in biophysics and related disciplines from various institutions (University of Illinois at Urbana-Champaign, Wesleyan University, Harvard University Biophysics Program, Cornell University, University of Wisconsin-Medical School, University of Michigan-Medical School, University of Rochester, SUNY-Staten Island, and University of Illinois at Chicago). Many students visited the Society and showed interest in gaining information about research and career opportunities in biophysics and interdisciplinary areas as well as other activities of the Society. Meeting attendees were encouraged to keep in touch with the Society Office and/or MAC members in helping promote and support biophysics, and to collaborate at future conferences.

Overall, ABRCMS was a great success with more than 2000 attendees, including students, faculty members, program directors, and recruiters from graduate and professional schools. Nearly 240 exhibitors representing various programs and departments participated in the meeting including government agencies, research institutes, foundations, research hospitals, societies/associations/non-profit organizations, and industry.

—*Don Rufus Ranatunga* and  
*Lydia Sohn* Member, Minority  
Affairs Committee

## Profile (continued from page 3.)

Gomes' research is currently focused on the proteasome, specifically in regards to ischemia/reperfusion injury using a proteomic approach. He has recently received another grant from the American Heart Association to study the role of the proteasome in cardiovascular disease and is pleased with the success he has had so far. "I came here to learn proteomics and ischemia/reperfusion injury with an expert in these fields and now I've got my own grant in this area," he explains.

Gomes attended his first Biophysical Society meeting while a postdoc in Potter's lab. "At that meeting I was able to make some really good contacts, which later turned out to be very important for collaborations," Gomes says. He continues to attend the meeting every year. As a member of the Early Careers Committee, he helped design the website, which allowed him to learn more about early careers and about how the Society works in general. He enjoys being able to give information to the younger scientists and likes to help them.

Aldrin has been married for nearly two years to Gayathri Venkatraman, whom he met while they were at the University of Miami. Venkatraman has a PhD in physiology and is currently working to understand the mechanism of limb girdle muscular dystrophy at UCLA. Gomes has remained athletic, exchanging his love of running for hiking and skiing. He also enjoys listening to music and collecting money, especially bank notes, from around the world.

Gomes' next goal is to have his own lab. According to Potter, he would be a dream recruit for any school looking for someone in this field because of Gomes' technical abilities. No matter where he goes, Gomes will continue to help the field grow and expand through his research and his influence on young people.

## Members in the News

### 20 Society Members Named AAAS Fellows

Twenty members of the Biophysical Society have been honored as 2006 AAAS Fellows. Fellows are elected by their peers for their scientifically or socially distinguished efforts to advance science or its applications. This year 449 members were selected. Presented by section affiliation, the Biophysical Society members honored as fellows are:

#### Section on Biological Sciences

*Barbara A. Baird*, Cornell University  
*Włodzimierz Marian Bujalowski*, University of Texas  
*Shelagh M. Ferguson-Miller*, Michigan State University  
*Barry Honig*, Columbia University  
*Arthur Horwich*, Yale University  
*Julian I. Schroeder*, University of California, San Diego

#### Section on Chemistry

*Philip Anfinrud*, NIH  
*Barbara A. Baird*, Cornell University  
*Keith O. Hodgson*, Stanford University  
*Kenneth Allen Johnson*, Stanford University  
*Todd J. Martinez*, University of Illinois, Urbana-Champaign  
*Udayan Mohanty*, Boston College  
*Gaetano T. Montelione*, Rutgers University  
*Mary Fedarko Roberts*, Boston College  
*Douglas J. Tobias*, University of California, Irvine

#### Section on Information, Computing and Communication

*Terrence J. Sejnowski*, The Salk Institute

#### Section on Medical Science

*Michael Aaron Edidin*, Johns Hopkins University  
*Dimitrios Morikis*, University of California, Riverside

#### Section on Neuroscience

*Cornelia Bargmann*, Rockefeller University

#### Section on Physics

*Steven M. Block*, Stanford University

### Two Society Members Elected to the Institute of Medicine

*Joseph Loscalzo* from Harvard Medical School and *Jane Richardson* from Duke University were recently elected to the Institute of Medicine.



*Joseph Loscalzo*



*Jane Richardson*

## Alexander von Humboldt Foundation, Humboldt Research Fellowships

Up to 600 fellowships are awarded annually to post-doctoral scholars interested in conducting their own research projects in Germany. Scholarships are awarded for 6-12 months with possible extensions of up to 24 months. There are no citizenship requirements, however you must be under the age of 40 and hold a PhD or equivalent degree. Decisions are made exclusively on the basis of academic achievement. The fellowships are open to targeted fields and all fields. A monthly stipend will range from \$2,580 to \$3,690. Additional support is available for travel, accompanying spouses, health insurance, and language courses. There is an open deadline.

For more information:

Alexander Von Humboldt Foundation  
U.S. Liaison Office  
1012 14th Street NW  
Suite 301  
Washington, DC 20005

(202) 783-1907  
info@avh.de  
[http://www.humboldt.foundation.de/en/programme/stip\\_aus/stp.htm](http://www.humboldt.foundation.de/en/programme/stip_aus/stp.htm)

## Natural Sciences and Engineering Research Council of Canada, Visiting Fellowships

The fellowships are available for scientists in the life sciences, physical sciences or schools of engineering. The fellowships are available for postdoctoral scholars and offer a stipend of \$43,724 per year plus travel expenses for research in Canadian government laboratories. They are tenable for one year with the possibility of renewal for a second year or third year. In order to qualify, you must have a PhD conferred within the last five years. There are no citizenship requirements, but awards are subject to a citizenship quota: 2/3 of awards must be made to Canadian citizens or permanent residents. There is an open deadline.

For more information:

Visiting Fellowships in Canadian Government  
Laboratories  
Scholarships and Fellowships Division  
Natural Science and Engineering Research  
Council of Canada  
350 Albert Street  
Ottawa, Ontario, Canada K1A 1H5

(613) 996-2009  
comm@nserc.ca  
[http://www.nserc.ca/sf\\_e.asp?nav=sfnv](http://www.nserc.ca/sf_e.asp?nav=sfnv)  
[http://www.nserc.ca/sf\\_e.asp?nav=sfnv&tlbi=3d](http://www.nserc.ca/sf_e.asp?nav=sfnv&tlbi=3d)

## 2007 UC-CONACYT Call for Proposals

The University of California Institute for Mexico and the United States (UCMEXUS) and El Consejo Nacional de Ciencia y Tecnología (CONACYT) announce the 2007 Call for Proposals for the following programs:

### UC MEXUS GRANTS PROGRAMS

- UC MEXUS Grants: For UC Principal Investigators.
- UC MEXUS Dissertation: UC MEXUS Dissertation Grants for UC graduate students.
- UC MEXUS Small Grants: for UC Principal Investigators.

### UC-CONACYT GRANTS AND FELLOWSHIPS: deadline, March 5, 2007

- Collaborative Grants: For teams of UC and Mexican Researchers.  
Postdoctoral Fellowships: For recent Mexican or U.C. PhDs for postdoctoral stays up to 12 months
- Faculty Fellowships: Short-term stays of Mexican faculty and researchers at UC campuses and UC faculty at Mexican academic institutions.
- Sabbatical Fellowships: For UC and Mexican researchers with long-term projects.

For more information visit <http://www.ucmexus.ucr.edu>

## 2007 Minority Biophysicists Travel Grant Winners

*Jeffy P. Jimenez*, University of South Florida  
*Clausell Mathis*, University of South Florida  
*Moataz Gadalla*, Cornell University  
*Elizabeth C. Wayne*, University of Pennsylvania  
*Reyniak Richards*, Oakwood College  
*Eric M. Johnson*, University of Texas at San Antonio  
*Nicolas F. Fernandez*, University of Texas at San Antonio  
*Tennille Presley*, Ohio State University  
*Jose Mercado*, University of Wisconsin, Madison  
*Bess-Carolina Dolmo*, San Francisco State University  
*Marque L. Moffett*, University of Vermont  
*Neville Y. Forlemu*, University of North Dakota  
*Ameer Thompson*, University of California, Davis

## 2007 International Travel Awardees

*Veronica Eisner*, University of Chile, Santiago  
*Tatiana A. Nenasheva*, Ural' State University, Russian Federation  
*Krzysztof Jozwiak*, International Institute of Molecular and Cell Biology, Poland  
*Giovanni Gonzalez-Gutierrez*, Centro de Neurociencia de V. U. de Valparaiso, Chile  
*Edgardo A. Disalvo*, University of Buenos Aires, Argentina  
*Elena A. Sokolenko*, Frumkin Institute of Physical Chemistry and Electrochemistry RAS, Russian Federation  
*Ingrid Carvacho*, Centro de Estudios, Chile  
*Karla Paola Garcia-Pelagio*, UMB, UNAM, Mexico  
*Lourdes C. Figueroa*, IVIC, Venezuela  
*Rodrigo F. M. de Almeida*, Centro de Química-Física Molecular, Instituto Superior Técnico, Portugal  
*Ernesto A. Roman*, Universidad de Buenos Aires-CONICET, Argentina  
*Malgorzata Kotulska*, Wroclaw University of Technology, Poland.  
*Jirasak Wong-ekkabut*, Mahidol University, Thailand  
*Piotr Bednarczyk*, Agricultural University SGGW, Poland  
*Griselda Casas-Pruneda*, School of Medicine, UASLP, Mexico

## 2007 Student Travel Awardees

*Sheereen Majid*, University of Michigan  
*Gregory J. Digby*, Medical College of Georgia  
*Dennis Rottlaender*, University of Cologne, Germany  
*Hanning Chen*, University of Utah  
*Lorant Janosi*, University of Missouri-Columbia  
*Jaime L. Curtis*, Michigan State University  
*Sharon Gilead*, Tel Aviv University, Israel  
*Dovart Brass*, Tel-Aviv University, Israel  
*Jessica M. Walter*, University of California, Berkeley  
*Eric S. Richardson*, University of Minnesota  
*Sheereen Majid*, University of Michigan  
*Esther Caballero-Manrique*, University of Oregon  
*Jennifer Hom*, University of Rochester  
*Youval Ben Abou Ben Gurion*, University of the Negev, Israel  
*Gentaro Iribe*, Oxford University, United Kingdom  
*Artem V. Melnykov*, Washington University School of Medicine  
*Anika Grutzner*, University of Muenster, Germany  
*Kathryn Kloepper*, University of Illinois  
*Aiwei Tian*, University of Pennsylvania  
*Yuntao Duan*, University of Rochester  
*Sébastien Morinm*, Université Laval, Canada  
*Jose Moran-Mirabal*, Cornell University

*Niall Macquaide*, University of Glasgow, United Kingdom  
*Heena Tabassum*, Hamdard University, India  
*Evgeniy Dubrovin*, Moscow State University, Russian Federation  
*Ole J. Kemi*, University of Glasgow, United Kingdom  
*Marcia Perez dos Santos Cabrera*, IBILCE - UNESP, São José do Rio Preto, Brazil  
*Yuri Antonenko*, Moscow State University, Russian Federation  
*Sanjeev Kumar*, National Centre for Biological Sciences, India  
*Olga Pronina*, Institute of Cytology RAS, Russian Federation  
*Yegor Tourleigh*, Moscow State University, Russian Federation  
*Chad Leidy*, Universidad de los Andes, Colombia  
*Elicer Ramos*, Universidad de los Andes, Colombia

# Satellite Meeting Registration Form

## Drug Discovery for Ion Channels VII

*Sponsored by Molecular Devices, Sophion Bioscience, and Cellectricon*

**FRIDAY, MARCH 2, 2007**

**9:00AM - 5:00PM**

**BALTIMORE CONVENTION CENTER, ROOM 314**

**REGISTRATION DEADLINE: FEBRUARY 2, 2007**

**REGISTRATION IS LIMITED AND ACCEPTED ON A FIRST-COME, FIRST-SERVE BASIS.**

Name (First):  (Last):

Address:

City:  State:

Zip/Mail Code:  Country:

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Required Field – E-mail: \_\_\_\_\_

I require special accomodations to fully participate in the meeting.  
 Describe briefly: \_\_\_\_\_

**Registration: (\$35.00)**

Please charge my credit card:  Visa  MasterCard  American Express  Discover

Credit Card #: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Name as it appears on card: \_\_\_\_\_

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

My check is enclosed (make check payable to Biophysical Society in US funds drawn on a US bank).

Return this entire form to:  
 Biophysical Society Office, 9650 Rockville Pike, Bethesda, MD 20814-3998;  
 Fax: 301-634-7133  
 (DO NOT fax form and then mail it.)

# Satellite Meeting Registration Form

## Regulation of Ion Channels and Transporters by Phosphatidylinositol 4,5-bisphosphate (PIP2)

*Sponsored by The Journal of Physiology*

**FRIDAY, MARCH 2, 2007**

**12:00PM - 5:00PM**

**BALTIMORE CONVENTION CENTER, ROOM 316**

**REGISTRATION DEADLINE: FEBRUARY 2, 2007**

**REGISTRATION IS LIMITED AND ACCEPTED ON A FIRST-COME, FIRST-SERVE BASIS.**

Name (First):  (Last):

Address:

City:  State:

Zip/Mail Code:  Country:

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Required Field – E-mail: \_\_\_\_\_

I require special accommodations to fully participate in the meeting.  
Describe briefly: \_\_\_\_\_

### Registration: (\$35.00)

Please charge my credit card:  Visa  MasterCard  American Express  Discover

Credit Card #: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Name as it appears on card: \_\_\_\_\_

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

My check is enclosed (make check payable to Biophysical Society in US funds drawn on a US bank).

Return this entire form to:  
Biophysical Society Office, 9650 Rockville Pike, Bethesda, MD 20814-3998;  
Fax: 301-634-7133  
(DO NOT fax form and then mail it.)

## Upcoming Events\*

April 10-20, 2007

*Evolution from Cellular to Social Scales*

Geilo, Norway

<http://www.ife.no/departments/physics/geilo2007/>

April 22-27, 2007

*48th Conference of the Experimental Nuclear*

*Magnetic Resonance*

Daytona Beach, Florida

<http://www.enc-conference.org/default.aspx>

April 23-27, 2007

*International Conference on Environmental Radioactivity:*

*from Measurement and Assessment to Regulation*

Vienna, Austria

<http://www.pub.iaea.org/MTCD/Meetings/Meetings2007.asp>

May 20-24, 2007

*FaN 2007 - Fluctuation and Noise in Biological, Biophysical, and Biomedical Systems*

Florence, Italy

<http://spie.org/Conferences/Calls/07/fn/>

May 21-24, 2007

*Force Measurement and Manipulation*

*in Biological Microscopy*

The University of North Carolina at Chapel Hill

<http://www.cs.unc.edu/Research/nano/cisimm/ForcesWorkshop.htm>

July 15-19, 2007

*VIth European Biophysics Congress*

Imperial College in London

<http://www.eurobiophysics.org>

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

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**Biophysical Society**

9650 Rockville Pike  
Bethesda, Maryland 20814-3998

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