Biophysical Society
NEWSLETTER
MARCH/APRIL 2006 ISSUE

SALT LAKE CITY ANNUAL MEETING SUMMARY

No one promised summer weather for the Society's 50th Annual Meeting in Salt Lake City, so it came as no surprise that February 18-22 saw a confluence of winter events: snowstorms on the east coast, high winds in the central states, record snows in Salt Lake City. Together they held up flights, stranded passengers, and made travel to the BPS Annual Meeting an adventure! The 5,000 attendees were rewarded with an exciting scientific program, a beautiful setting in a welcoming city, and a myriad of activities.

BOARD AND COUNCIL MEETINGS

The Society's Executive Board and Council met during the Annual Meeting. Many of the decisions made and discussions held during those meetings are described within the committee and subgroup reports found throughout this newsletter. Below is a summary of major Board and Council actions not described elsewhere.

- Approved a joint effort with the American Physical Society's Division of Biological Physics (APS/DBP) whereby the DBP will plan one symposium for the BPS Annual Meeting and the BPS will plan one symposium for the APS March meeting.
- Approved the Landmark Paper Project, with Adrian Parseggian as Chair. The project's goal is to select a list of seminal papers in key areas of biophysics and develop commentaries for each area.
- Elected two members of Council to serve two-year terms (2006-2008) on the Executive Board. *Suzanne Scarlata*, of Stony Brook University, and *David Piston*, of Vanderbilt Unviersity, were elected to succeed outgoing Board members *Clara Franzini-Armstrong* and *Justin Molloy*.

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Suzanne Scarlata

David Piston

2006 Biophysical Society Discussions

Molecular Motors: Point Counterpoint

Application deadline: May 1, 2006
www.biophysics.org

Asilomar Conference Center
Asilomar, California

October 19-22, 2006

Attendance limited.
For full program information
see page 19.

Mark Your Calenders for the Biophysical Society's 2007 Annual Meeting!
March 3 – 7 in Baltimore, Maryland

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Biophysicist in Profile

Barry Lentz

Barry Lentz is often recognized by the broad-rimmed western-style hats he wears. But those who know him well also recognize him for the many hats he wears in his professional and personal life.

Currently he is a professor and Director of Biophysics at the University of North Carolina, a mentor and research director for his laboratory colleagues who work on the mechanism of membrane fusion and on the role of lipids in regulating blood coagulation, an Associate Editor of the Cell Biophysics Section of *Biophysical Journal*, and now, President of the Biophysical Society. Equally important, he is a husband of 40 years, a father, and seven times a grandfather! He describes himself as a person who can't turn away when he thinks he can make a difference, and he brings passion to everything he does.

> "Nobody thought Biophysics would amount to a hill of beans . . ."

Son of John and Florence Lentz, Barry was born on September 2, 1944, in Philadelphia. His father, an alumnus of the University of Pennsylvania, was a physician and on the staff at Penn's Philadelphia General Hospital. His mother worked in store security as a detective, and now at 93, lives just ten minutes away from Lentz and his wife Charlotte. After adopting Barry, his parents had two children, Deborah and Don. Don runs a four-star French restaurant in upstate New York, while Deborah now teaches in Seattle.

Despite his father's hope that Barry would follow him into medicine, the younger Lentz "always wanted to be a scientist." He received his first chemistry set in the fifth grade, which he used to build rockets and stink bombs. As he grew more adept at these activities, the neighbors and his mother grew more impatient, so he turned his focus to academic science. By ninth grade, Lentz was staying after school daily to help the teacher set up for class and discuss advances in physics. "I carried a briefcase, was 5'2" and chubby," he says about his younger years, admitting sports were not his strong suit.

In eighth grade, a career guidance test indicated his future lay in auto-mechanics. "They said I liked to understand how things work," explains Lentz. Barry remains fascinated with "how things work," including automobiles, but the mechanics he's now passionate about are the mechanics of cells and biomolecules.

Lentz attended the University of Pennsylvania because his father was willing to pay for his son to attend the family school and enter the "family profession." His pre-med/chemistry major led to a Bachelor of Arts in 1966, however, rather then a Bachelor of Sciences. Pre-med required many classes outside math and science, which instilled in Barry a love for history, music, art, and philosophy. He did, however, find time to take undergraduate and graduate physical chemistry courses, which turned out to be his favorite classes. "If I had to do it over again," says Lentz, "I'd do exactly what I did and earn a BA because of all I learned."

After graduating from college and surviving a mistake by his draft board that would have sent him to Vietnam, Barry headed directly to graduate school at Cornell University to study Biophysical Chemistry. There he worked with Harold Scheraga. Because no one else in Scheraga's group of roughly 35 people was working on water structure, Lentz had the privilege of working closely with Scheraga throughout his graduate career. "Harold is a granddaddy of protein biophysics and was a master at

seeing to the heart of an issue and asking tough questions, "Lentz explains, "I learned a great deal from him." Upon earning his PhD at Cornell in 1973, Barry traveled south to the University of Virginia (UVA) to join Tommy Thompson's lab as a postdoc. "UVA was the center of membrane biophysics at that time," says Lentz. He refers to his two years in Charlottesville as his "Camelot years."

While with Thompson, a former President of Biophysical Society, Lentz began attending Society meetings. "I told him that everyone who is a serious biophysicist must join the Society," says Thompson. As a family man with three young children, Barry did not actively participate in the Society during his early career; however, it quickly became his intellectual home. As time passed, he served on the leadership committee and became chair of the Membrane Structure and Assembly Subgroup. Soon Lentz was organizing workshops and symposia and later was nominated to Council by members of that Subgroup. "He has always had the ability to be not only a fine scientist," says Thompson, "but also a scientific leader."

Lentz has always been passionate about applying his physical chemistry background to biomedical science. This passion took him to the University of North Carolina at Chapel Hill Medical School as an Assistant Professor of Biochemistry rather than to a chemistry department. Once there, he did the same thing he had done as an undergraduate student seven years earlier: he located an empty office, commandeered an empty lab, scrounged and "borrowed" whatever supplies he could, and with $5000 from UNC's Cancer Center, he built a lab. His first graduate student, Bryant Moore, was the first African American to ever enroll in UNC's Biochemistry Department. A second student, David Barrow, was the son of a UNC Pathology professor and at the time was fixing arcade games at the local mall. Together, the three liberated an old fluorometer and an old Zeiss spectrophotometer, provided them with car batteries for power supplies, and modified the fluorometer to do polarization measurements. Thus was the Lentz lab was born!

> "The things I'm most proud of are the things most people still don't believe"

After two years on NSF's Biophysics Panel and four years on NIH's Biochemistry, Biophysics, and Cell Biology Study Section, Barry turned his attention to building biophysics at UNC, which turned out to be a slow process. "We were simply overjoyed to move our lab from the dungeon of MacNider to the modern facilities of the Faculty Laboratory Office Building (now Mary Ellen Jones building) and to keep getting sufficient funding to keep the lab going," explains Barrow, who is now Director of the Bioanalytical Core Labs for the UNC General Clinical Research Center, and Laboratory Manager for the Center for Oral and Systemic Diseases within the UNC School of Dentistry. It was these small steps that mattered most because UNC's Medical and Arts & Science Schools interacted very little in those days. It took over four years to convince chairs and deans that it would be beneficial to train students in this interdisciplinary field. "Nobody thought Biophysics would amount to a hill of beans," Barry states. Over the next 15 years, Lentz worked tirelessly to recruit faculty and students, and now he is proud to say that UNC's biophysics program "is one of the best in the country."

Along the way, Lentz has earned a reputation as a tough but fair mentor. "He could be tough but was always very considerate," explains Moore, "and always found time to listen and work with the student through problems both academic and personal." Moore, who is now Vice President of Product Development & Technology for Medtronic's New Therapies and Diagnostic Management Organization, notes that "it was quickly apparent that Barry is a very compassionate and caring person." The relationships he has formed with his students lasting long after the students have left the classroom are evidence of his caring.

Now that the Biophysics Program at UNC-Chapel Hill has been established, Lentz has been able to cut back on teaching and spend more time on research. He loves both his work on membrane fusion and his work on the role of lipids in blood coagulation. And with his family and career now secure, he has been able to take more scientific risks. One of these led to showing that blood coagulation is regulated by a platelet membrane lipid, phosphatidylserine, leading to a protracted disagreement with the blood coagulation community. Recent work with exocytotic fusion proteins has also led to disagreements with many in the neuronal release community. "The things I'm most proud of are the things most people still don't believe," Lentz states proudly, admitting a certain pleasure in being considered a scientific maverick. No matter how crazy people might think he is, Lentz has

Lentz loves to spend time outdoors, and kayaking is one of the many activities he does year round.

(Continued on page 17.)

Membrane Structure & Assembly

The 2006 Membrane Structure & Assembly Subgroup symposium, *Biological Membrane Fusion: Mechanisms and Intermediates*, was held on Saturday February 18 and was extremely well-attended by an audience of over 400.

The ability of membrane lipids to form continuous and closed lipid bilayers is essential for many functions of biological membranes. However, intracellular fusion reactions such as exocytosis and protein trafficking, cell-cell fusion in development, and viral infections share a common stage of local and transient breaking of membrane continuity when two membranes fuse into one. The symposium explored different aspects of protein-lipid interplay in membrane fusion.

Michael Kozlov opened the program with a discussion of the physics of lipid bilayer rearrangements. He has described the fusion pathway based on the analysis of the elastic properties of lipid monolayers. The first to fuse are the membrane monolayers, which face each other through a water gap. This fusion stage is referred to as hemifusion and the new theoretical results suggest the specific mechanism by which deformations of these lipid monolayers might generate the earliest hemifusion intermediate.

Both enveloped and non-enveloped viruses break the continuity of biological membranes to deliver their nucleic acid into a cell. *Xiaowei Zhuang* presented the fluorescence microscopy study of the pathway of cell entry for poliovirus based on the analysis of the entry and uncoating for individual viral particles.

Felix Rey discussed the structures of the fusion proteins of alpha- and flaviviruses. Initial conformations of class 2 fusion proteins (e.g., envelope glycoproteins E1 of alphaviruses and E of flaviviruses) differ radically from class 1 fusion proteins such as influenza virus hemagglutinin (HA) and HIV envelope protein. However, the final post-fusion conformations of diverse fusion proteins share similar hairpin folding.

Yinling Li focused on class 1 fusion protein HA. Parallel analysis of the structural and functional effects of different mutations in the fusion peptide region of HA was used in this study to explore the functional importance of a specific conformation of the peptide referred to as a boomerang structure.

Gregory Melikyan described the fluorescence microscopy study of the pathway of membrane fusion and entry for HIV and Avian sarcoma and leukosis virus. Comparing the kinetics of redistribution for different membrane- and content- probes during individual virus/cell fusion events allowed identification of the distinct fusion stages including the hemifusion, pore formation and pore growth.

The last two symposium speakers discussed the pathway of intracellular fusion reactions. *Yeon-Kyun Shin* told about the pathway of fusion between proteoliposomes carrying SNARE proteins that are critical components of intracellular docking and fusion machinery. Deleting half of the transmembrane domain of SNAREs or lowering the density of wild-type SNAREs resulted in hemifusion.

Finally, *Andreas Mayer* discussed the pathway of a physiological homotypic fusion of yeast vacuoles involving multiple proteins acting in concert with SNAREs. Inhibitors blocked this fusion reaction at different stages allowing identification and characterization of a hemifusion intermediate in a physiological intracellular fusion reaction.

The subgroup's annual business meeting was held after the talks. The organizers would like to thank National Institute of Child Health and Human Development, National Institutes of Health, and Avanti Polar Lipids for the generous financial support. The new chair for 2007 is *Frances Separovic*, and for 2008 it is *Scott Feller.*

Bioenergetics

The morning symposium on *Mitochondria and Regulation of the Cellular Energy State*, sponsored in part by the Cancer League of Central Switzerland, covered different aspects of the energetic crosstalk between cytosol and mitochondria. The first three lectures were dedicated to the systems bioenergetics of cellular phosphotransfer networks that are catalyzed by metabolic kinases. *Uwe Schlattner* (Zürich, Switzerland) described structure-function relationships of creatine kinase isoenzymes that create energetic microcompartments in the cell due to specific intermolecular interactions. *Valdur Saks* (Grenoble, France) extended this structural view on the physiological level by explaining how creatine kinase catalyzed energy transfer can account for respiration regulation in the heart, in particular under conditions of the well-known Frank-Starling Law. The integrated role of phosphotransfer networks, including adenylate kinase and glycolytic pathways, in intracellular energy partition were introduced by *Petras Dzeja* (Rochester, MN), together with their role in mitochondria-nuclear communication and regulation of ATP sensitive K^+-channels.

The second part of the symposium was dedicated to energy-sensing protein kinase signalling in cell life and death. *Nissim Hay* (Chicago, IL) described how pro-survival kinase Akt/PKB has been recruited to the anti-apoptotic cascade by retaining hexokinase bound to the VDAC channel at the mitochondrial surface. Finally, *William Winder* (Provo, UT) introduced the multifaceted roles of the cellular "energy gauge" AMP-activated protein kinase (AMPK), whose

activation during exercise (and possibly by future specific drugs) may combat metabolic diseases like type II diabetes.

The afternoon session, *Systems Biology: Mitochondria Are not Alone*, supported in part by the United Mitochondrial Disease Foundation and Avanti Polar Lipids, was organized by *Hartmut Wohlrab* (Boston Biomedical Research Institute) and *Svitlana Berezhna* (The Scripps Research Institute). It addressed mitochondria as part of cellular metabolism with emphasis on new methods of investigation. Thus *Arvind Ramanathan* (Broad Institute) presented his work on small molecule screening and metabolic profiling in studies of cell line models of disease. *Joseph Bass* (Northwestern University) talked about circadian gene oscillators and their relations to obesity and diabetes. *Vamsi Mootha* (Massachusetts General Hospital) presented his systematic predictions of the 1500 proteins that make up mitochondria (what exactly constitutes a mitochondrion?). His other exciting results concerned the identification of markers in skeletal muscles as first sign of type 2 diabetes. *Luis A. Nunes* (Northwestern University) presented methods for facilitating the understanding of the complexity of metabolic networks. *Rashu B. Seth* (University of Texas Southwestern Medical Center) presented her work on the novel mitochondrial anti-viral signaling protein (MAVS), a protein whose function provoked extensive discussions on 'why is this membrane protein part of mitochondria?'.

Membrane Biophysics

The Membrane Biophysics subgroup held its annual symposium on Saturday afternoon, February 18 in Salt Lake City, Utah. This year's symposium theme was *Horizons for the Queen of Ion Transport – CaV Calcium Channels*. The session was organized and moderated by this year's subgroup chair, *David T. Yue*, from the Johns Hopkins University School of Medicine. Presenters included *Dan Minor*, University of California San Francisco; *Henry Colecraft*, Johns Hopkins University; *Gerald Zamponi*, University of Calgary; *David T. Yue*, Johns Hopkins University; *Diane Lipscombe*, Brown University; *Veit Flockerzi,* Universität des Saarlandes; and Ricardo Dolmetsch, Stanford University. The subgroup thanks David Yue for organizing an excellent symposium.

At the business meeting following the symposium, *Eitan Reuveny*, Weizmann Institute of Science, was selected as chair-elect. *Nael A. McCarty*, Georgia Institute of Technology, the current chair, is organizing the 2007 symposium. *Carol L. Beck*, Thomas Jefferson University, will continue as Secretary-Treasurer. The Cole Award dinner was held at Squatter's Restaurant. Following dinner, the subgroup presented an Award of Special Recognition to *J. Walter Woodbury*, in recognition of his leadership and roles in creating both the Membrane Biophysics subgroup and the K.S. Cole Award.

The 2006 K.S. Cole Award was presented to *Edwin W. McCleskey*, Vollum Institute, Oregon Health and Science University, in recognition of his contributions to the understanding of the mechanisms of calcium channel permeation and the molecular mechanisms of ischemic pain. *Wolf Almers* introduced McCleskey for the award.

Fourteen students attended the Cole Award dinner as guests of the subgroup. Guest student tickets for the dinner were awarded by lottery. The subgroup plans to continue this tradition. Interested students should watch for newsletter announcements to participate in next year's lottery.

Permeation/Transport

The Permeation/Transport Subgroup held its third annual meeting on February 18 in Salt Lake. The short, mid-day meeting was again deemed very successful. *Dirk Gillespie* lectured on combining density functional and Poisson-Nernst-Planck theories to fit single channel current data for the ryanodine receptor. Then *Giuseppe Inesi* lectured on biophysical properties of the Ca^{++}-ATPase and their structure-based interpretation. In addition, tribute was paid by the former chair and vice chair to *J. Walter Woodbury* and *George Eisenman* for the instrumental roles they played in advancing rate and electrostatic binding theories for channel permeation and selectivity.

As the outgoing chair, *David Busath* urged the subgroup to continue to focus on uniting theory and experiment. *Benoit Roux* succeeds Busath as chair. *Wolfgang Nonner* advanced to vice chair. *Svetlana Lutsenko* (OHSU) was elected as the new treasurer to succeed *Wolfgang Nonner*. Subgroup membership is steadily rising and now stands above 90

MARC TRAVEL AWARDS

2006 Awardees

Alexander Volkov
Courtney Brown
Corey Dambacher
Ryan Lang
Mark Hernandez
Lisa Jones
Oscar Alvizo
Christina Vizcarra
Charmita Burch

Member in the News

Ahmet Yildiz of University of California, San Francisco, Society member since 2002, won the GE/Science Young Scientist Award for his discovery of how proteins work within cells.

members. The subgroup budget is healthy.

Methods for soliciting subgroup speakers and nominees for the treasurer election this year were once again informal and last-minute. With time it is likely that these will become more codified and democratized, because the Society is steadily increasing its requirements and deadlines for subgroup functions. However, for now we have been very pleased with the outcomes of our casual approach.

The subgroup awarded SRAA prizes for student posters to *Craig Moffat* and *Hena Ramay*. Thanks to *Emad Tajkhorshid* for his efforts as a judge in that competition and to others who offered to help but weren't needed.

The new leaders plan to email the subgroup members in September, reminding them to encourage their permeation/transport students to check the SRAA competition box on their abstract submission form in October. This will allow the graduate students to compete in our specific pool, and may enhance their chances of winning the cash awards. Also, anyone who wishes to be considered for a presentation in our subgroup symposium at the 2007 Baltimore meeting next year please feel free to offer. Decisions will probably be made in the October to December time frame.

— *Benoit Roux*, Chair
— *Wolfgang Nonner*, Vice Chair and Chair-Elect
— *David Busath*, Former Chair

Intrinsically Disordered Proteins

Starting last fall, *Gary Daughdrill*, *Keith Dunker, H. Jane Dyson*, *Anthony L. Fink*, *Richard W. Kriwacki*, *Peter T. Landsbury, Jr.*, *Rohit V. Pappu*, *Gary Pielak*, *Kevin W. Plaxco*, *Pedro Romero*, *George Rose*, *Peter Tompa*, *Vladimir Uversky* and *Peter E. Wright* circulated a petition to form a new subgroup with a focus on Intrinsically Disordered Proteins. More than 190 signatures were received. The Biophysical Society hosted an organizational meeting on Saturday, February 25. More than 35 people attended this meeting and joined an impromptu discussion of these interesting proteins for almost two hours. The students and postdoctoral fellows enlivened the discussion with questions coming from their own research.

On Tuesday evening, the new subgroup was approved by a unanimous vote of the Council. *Vladimir Uversky* and *Richard Kriwacki* were selected at the organizational meeting to be the co-organizers of the scientific session for the first Intrinsically Disordered Protein subgroup meeting in Baltimore at the 2007 Biophysical Society Annual Meeting. Those who would like to make presentations at this inaugural meeting should send e-mail messages to Richard and Vladimir providing their names, institutions, titles of their proposed talks, and commitments to attend the 2007 meeting. While it might not be possible to include everyone who wants to talk, every effort will be made to develop an interesting program, and the list of possible speakers will be kept for future years.

Finally, those who would like to serve on the council or be an officer of this new subgroup should send e-mail messages to Richard and Vladimir indicating their interests in these positions. Elections will be held at the first official business meeting next year in Baltimore.

— *Vladimir Uversky:* dekirkha@iupui.edu
— *Richard Kriwacki:* Richard.Kriwacki@stjude.org

International Relations Committee

The International Relations Committee announce the extension of the International Visiting Graduate Student Travel Award program to include student visits to labs of all regular members, regardless of country.

Eligibility:

- The student must be from a country in need and visit a lab outside that country/continent.
- Short visit (1-3 months) to a lab of a Biophysical Society regular member to acquire skills to apply to a Ph.D. thesis in the country of residence.
- The quality of the facility and research to be undertaken will be reviewed.
- Funds are only for receipted costs of travel.
- The laboratories involved will be responsible for living expenses.

STUDENT TRAVEL AWARDS

2006 Awardees

Kelly Sackett
Jennifer Dawson
Ya-Ting Kao
Jing-Yin Chen
Grace Brannigan
Jennifer Rochira
Ivo Telley
Allen Liu
Kristina Herbert
Yasser Qutub
Nazzareno D'Avanzo
Liana Silva
Ann Rossi
Paul Robinson
Jessica Schulz
Brittany Zadek
Patricia Cooper
Alnoor Pirani
Marcel Friedrich
Robert Mealer
Gusztav Schay
Robert Lober
Michael Murcia
Natascia Vedovato
Jose Eltit
Elisabeth Janiszewski
Yael Yaniv
Victor Waingeh

Minority Affairs

MARC and Student Travel Grant Awardee Reception

The Biophysical Society, in collaboration with the Minority Access to Research Careers (MARC) office at FASEB, this year funded travel awards to support the participation of students and faculty/mentors at the Biophysical Society Meeting. *Stephen Mayo* and *Gabriel Montaño* of the Minority Affairs Committee coordinated the 2006 MARC award competition. The 12 winners of MARC awards were recognized and honored on February 18 in Salt Lake City at the Student Travel Grant and MARC Awardees Reception. Gabriel Montaño from the Minority Affairs Committee and *Richard Ludescher*, co-chair of the Education Committee, co-hosted the event. The winners were individually recognized and presented certificates from the Biophysical Society and the MARC/FASEB program. Each recipient, in turn, briefly described the research that he or she would present.

Committee Meeting and Future Plans

The Committee held its annual business meeting following the Awards Reception. Attendees at the meeting included *Elizabeth Komives*, MAC Forum Speaker and Incoming MAC Member from University of California, San Diego; *Barry Lentz*, Society President-elect at the time; *Richard Ludescher*, Education Committee Co-Chair; *Don Rufus Ranatunga*, incoming MAC member from Oakwood College; *Janna Wehrle*, MAC Forum Speaker from the National Institute of General Medical Sciences; *Ro Kampman*, BPS Executive Director; and *Yvonne Butters*, MAC Staff Liaison at the Society Office.

The Committee discussed ways to enhance outreach activities, including re-design of the Society booth and selection of travel awardees. Also discussed at the business meeting were Committee members' assignments and responsibilities for the coming year.

Luis Marky and *Colin Wraight* will represent the Biophysical Society at the annual Society for Advancement of Chicanos and Native Americans in Science (SACNAS) meeting in Tampa, Florida, October 26-29, 2006. *Luis Marky* and *Gabriel Montaño* will work with the SACNAS organizing committee to develop a session on biophysics for 2006, if possible. If the deadline has passed, plans will be submitted for 2007. *Lydia Sohn* and *Don Rufus Ranatunga* will attend the Annual Biomedical Research Conference for Minority Students (ABRCMS) meeting in Anaheim, California, November 8-11, 2006. *Stephen Mayo* will deliver one of the invited scientific lectures at the ABRCMS meeting. *Wilma Olson* will attend the National Society of Black Physicists/National Society of Hispanic Physicists (NSBP/NSHP) meeting in Boston, Massachusetts, February 21-25, 2007.

Ishita Mukerji and *Gabriel Montaño* will work with the Society staff on the outreach program, including re-design of the Society exhibit booth, organization of the Minority Affairs Committee web page and resource/research clearing house.

Linda Kenney and *Elizabeth Komives* will coordinate the 2007 minority travel award competition and co-host the Student Travel Grant and MARC Awardees Reception in Baltimore. Ishita Mukerji will chair the Committee and lead the development of a formal program for the 2007 Minority Affairs Committee Forum.

The appointments of *Elizabeth Komives*, *Don Rufus Ranatunga* and *Saundra DeLauder* to the Committee were approved at the New Council meeting.

Forum

On February 21, the Minority Affairs Committee sponsored a forum entitled *Easing the Transition for Graduate Students at Major Research Institutions. Wilma Olson* (Rutgers University) presented a brief update on the Society's summer course in Biophysics, which was coordinated by *Barry Lentz* (University of North Carolina at Chapel Hill). *Ishita Mukerji* (Wesleyan University), *Margarita Dubocovich* (Northwestern University), and *Elizabeth Komives* (University of California, San Diego) discussed successful practices for minority student recruitment and retention at their respective institutions, including experiences found to encourage and prepare undergraduate students for graduate training and/or approaches that have proven to help graduate students adjust to the rigors of a PhD training program

INTERNATIONAL TRAVEL AWARDS

2006 Awardees

Mei-Jie Jou
Jure Derganc
Rajaram Swaminathan
Sunil Nath
Noa Bar-Ilan
Yolima Torres
Diego Cattoni
David Svintradze
Belma Turan
Manoel de Arcisio Miranda Filho
Carlos Garcia
Veronica Jimenez
Grzegorz Pazdzior
Alexander Moskvin
Mauricio Henriquez
Andres Jara
Jose Renato Pinto
Reinaldo Dipolo
Jose Eltit
Natalyia Fedirko
Olga Kopach
Valentin Novikov

in biophysics or related disciplines. *Janna Wehrle* (National Institute of General Medical Sciences) concluded the program with a discussion of the expectations of governmental agencies that fund training programs in biophysics, including information about some of the best practices for minority recruitment and retention found on NIH websites.

CPOW REPORT

Childcare

CPOW is happy to report a busy and successful 50th Annual Meeting for all CPOW-sponsored activities, ranging from childcare to career luncheons to a panel discussion on leadership. This is the second year that CPOW and Society staff worked to successfully bring childcare to the Annual Meeting. This service was provided by an outside agency, Kiddie Corp. A total of 15 children attended childcare at the Annual Meeting with a maximum of 10 children at any one time. Judging from the increase in attendance over last year and positive feedback, childcare at the Biophysical Meeting is a great success! Because of this success, CPOW and Biophysical Society staff are pleased to again offer childcare at the 51st Annual Meeting in Baltimore. CPOW and Society staff are again working hard to find corporate sponsors to help reduce the cost to attendees. For additional information on childcare, visit the Biophysical Society website.

Career Panel Discussion

This year CPOW sponsored a panel discussion on *How to Advance into a Leadership Position*, which was a great success with nearly 70 attendees. The panel was comprised of distinguished Society members who are successful leaders in academia, industry and the Society. *Jill Trewhella,* from the University of Sydney and former director of the Biosciences Division at Los Alamos National Laboratory, moderated the discussion. *Ken Dill*, former Society President and Chair of the Public Affairs Committee, provided insight on how to be an effective Society leader. *Kathleen Matthews*, Dean of the Weiss School of Natural Sciences at Rice University, gave the perspective of leadership in an educational institution. Ray Salemme, CEO of the Linguagen Corporation and founder and former president of 3-D-Pharmceuticals, provided the perspective of an industry scientist and entrepreneur.

Elizabeth Komives, Ken Dill, and Kathleen Hall participated in the special events marking the Society's 50th Annual Meeting.

The discussion began with each panelist providing valuable insight and advice about what it takes to be a leader and how to become a successful leader. Afterwards, the audience asked numerous questions ranging from how to become a leader in industry to how to lead a group when resources are limited. The consensus was that leadership comes in many forms, and to begin all that is required is passion and a willingness to work. The speakers all recommended starting out small so that you can decide whether you really want to be a leader. Besides doing your homework, learning to listen, staying calm, and knowing how to read a group were seen as important leadership skills. Look for an expanded article on leadership in an upcoming newsletter.

Career Luncheon

For its second year, the Career Roundtable Luncheon sponsored by CPOW was great success! Career topics ranged from grant writing, interviewing and negotiating, to collaborations and balancing service and productivity. This year topics were organized according to career stages ranging from graduate students to mid-level scientists. Discussions were moderated by Biophysical Society members *Dorothy Beckett*, University of Maryland; *Robert Oswald*, Cornell University; *Laura Moen*, NIDDK; *Ruth Heidelberger*, The University of Texas; *Paul Selvin*, University of Illinois; *Chris Miller*, Brandeis University; *Ka Ye Lee*, University of Chicago; and *Stephen Harvey*, Georgia Institute of Technology.

For interviewing, it is important to operate under the assumption that you will be offered the position. Sell your research and ask yourself whether this institution is the place for you. For collaborations, it is best if both sides bring something to the table and remember to define the project and authorship in advance. In the end, participants and moderators enjoyed these informal discussions and everyone learned something new. Look for detailed articles on the Career Roundtable Discussion in an upcoming newsletter.

Early Careers

Meet & Greet at the Opening Mixer

What started tentatively in 2004 is becoming a tradition at the Biophysical Society Annual Meeting. Once again, the Early Career Committee provided a meeting point for people attending the meeting alone, many of them for the first time. It was an opportunity for them to meet other members and start networking and interacting with them. The Meet & Greet table also provided a sign-up sheet for dinner at an Italian restaurant nearby. Fourteen people attended. Reservations had been made, so there was no need to wait around to be seated! If you'd like to meet new people, look for us in Baltimore in 2007 at the Opening Mixer.

Postdoctoral & Graduate Student Breakfasts

The Early Career Committee held two breakfasts to meet with postdoctoral (on Sunday) and graduate student (on Monday) attendees. Despite the snow, they were both well attended. The breakfasts provide an important forum to discuss the needs and concerns of members at early stages in their careers, and offer suggestions as to how the early Career Committee and the Biophysical Society as a whole can provide resources to facilitate the transitions inherent to early careers.

Funding was a major concern, especially for foreign students and postdocs, and how to find out about the existing funding opportunities. The Society website was mentioned as a good source for this as well as for other kinds of information for early career members.

Another transition mentioned during the breakfasts were the changes faced by foreign students and postdocs who come to the US. It was suggested that it would be useful to be able to contact members from the same country of origin, who have been in the US for a longer period of time, for advice on how to deal with the cultural differences. The Society website also offers an article on how to get started in another country, which would be useful for anyone moving countries to perform research.

Publicizing the resources already available should to continue to be a focus of the Early Career Committee for 2006/2007. The Society website is www.biophysics.org.

Early Careers Committee Panel Discussions

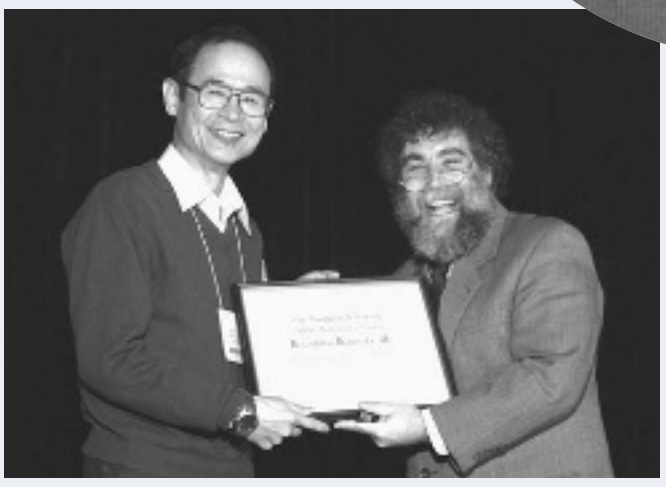
Committee member *Aldrin Gomes*, from the David Geffen School of Medicine, UCLA, moderated the panel, entitled *Negotiating the Transition to an Independent Position*. The panel included representatives from medical schools and from a primarily undergraduate institution, who answered questions from the audience about recruitment, initial grants and research projects, job searches and other aspects of the transition from a postdoctoral researcher to an independent investigator. For next year's panel, taking advantage of the proximity between Baltimore and Washington, the discussion will focus on different career paths for biophysicists within government institutions, such as the patent office, or lobbyists.

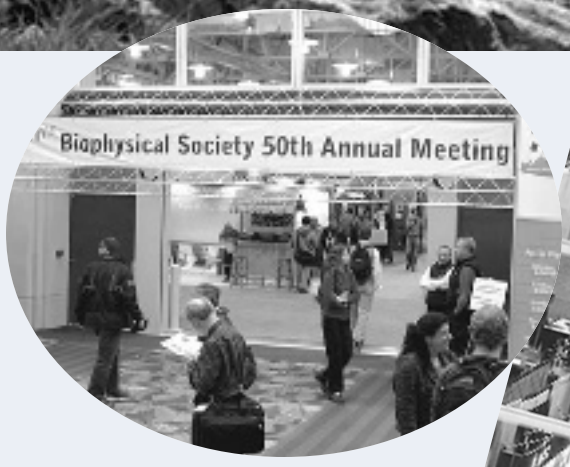
Placement Center

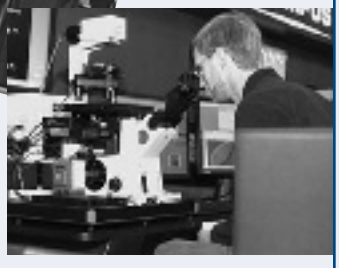
The Placement Center counted on popular *Ed Bocko* again this year, who was available for one-on-one consultations and CV analysis throughout the meeting, and presented his series of career development workshops. The Placement Center is available online through the year, and Society members can post their CVs at no cost. Job advertisements are charged a small nominal fee. More information is available at http://www.biophysics.org/placement/

Kazuhiko Kinosita, Jr., of Waseda University presented the 50th Annual Meeting National Lecture, Probing Nature's Nanoscale Machines with Microscale Probes, to a capacity crowd.


Biophysical Society 50th Annual Meeting







2006
Salt Lake City, Utah

SRAA Competition

Each year, the Biophysical Society honors graduate students for their achievements in biophysics by presenting the Student Research Achievement Award (SRAA). These awards are given to the graduate students who make the best poster presentations in the SRAA Poster Competition, in each of the subcategories represented by subgroup topics. Members from each subgroup reviewed and judged the poster competition. Students presented their posters in the first round of competition, giving the judges a full overview of their research project including procedures, techniques, results, and their consequences. The judges then invited specific students to participate in the second round of competition. During the second round those students invited back fielded a number of questions from the judges, ranging from the general to the highly specific.

From the 79 submissions, 13 winners were selected. The winners were honored at the Awards Ceremony and each received a certificate and a monetary award. The Biophysical Society extends congratulations to the winners of the 2006 Student Research Awards competition listed below:

Biological Fluorescence Subgroup
Lai Hock Tay, Johns Hopkins University
Rosemary Turingan, University of Massachusetts

Exocytosis/Endocytosis Subgroup
Xiaohui Chen, University of Missouri
Tzu-Ming Wang, University of Texas Southwestern Medical Center

Membrane Biophysics Subgroup
Marcel Friedrich, Max Planck Institute
Katherine Mayer, Rice University

Membrane Structure & Assembly Subgroup
Xue Han, Johns Hopkins University

Molecular Biophysics Subgroup
Dukagjin Blakaj, Albert Einstein College of Medicine
Gwangrog Lee, Duke University

Motility Subgroup
Corey Dambacher, San Diego State University
Nicholas Guydosh, Stanford University

Permeation Transport
J. Craig Moffat Jr., Brigham Young University
Hena Ramay, George Mason UniversityUndergraduate

Student Symposium and Fair

As the Society's Annual Meeting continues to grow each year — nearly 6,000 attendees and over 3,000 abstracts each year — it may be intimidating to undergraduate students who attend. To address this, the Education Committee each year hosts the Undergraduate Student Symposium. This symposium gives undergraduate students the opportunity to participate in Annual Meeting activities within a group of their peers and advisors in a more intimate setting.

This year's Undergraduate Symposium opened with two Emerging Topics in Biophysics. *Stephen Harvey*, from the Georgia Institute of Technology, presented *Molecular Modeling: Fantasy or Reality*, and *Suzanne Scarlata*, from Stony Brook University, presented *Transmitting Signals from the Outside of the Cell to the Inside: The Biophysics of a G Protein-Effector System*. The Emily Gray Award Lecture was presented later by *Ignacio Tinoco, Jr.*, from the University of California, Berkeley. His talk was entitled *Kinetics and Thermodynamics One Molecule at a Time.*

The symposium was followed by a Graduate Institution Fair, the first of its kind presented at the Annual Meeting. Representatives from institutions with graduate training programs in biophysics were on hand to pass out fliers and literature about their respective programs and to speak to undergraduate students interested in pursuing careers in biophysics. The Society would like to extend thanks to the following institutions for participating in the Graduate Institution Fair:

Albert Einstein College of Medicine
Case Western Reserve University
Florida State University
Georgia Institute of Technology
Idaho State University
Indiana University School of Medicine
International University of Bremen
Johannes Kepler University
Max Planck Institute for Molecular Cell Biology and Biophysics
National Institutes of Health - Office of Intramural Training and Education
North Carolina State University
Oregon State University
Rutgers University
Stony Brook University
The Ohio State University
Texas A&M University
University of Albany — Structural & Cell Biology Graduate Program
University of California, Davis
University of California, San Diego
University of Florida
University of Kentucky
University of Massachusetts, Amherst
University of Leiden

February 19-22, 2006 Salt Lake City, Utah

Advice on Writing a First NIH Grant

A panel of senior staff from the National Institutes of Health (NIH) conducted a grant writing workshop for early career investigators. Through a mock study section, the panel demonstrated how grant proposals are rated, pinpointing the major pitfalls to which first-time applicants often succumb. The mock review of three grant proposals also provided the audience with an understanding of how to prepare a proposal that anticipates and addresses what the reviewers will look for when they read it. Over 200 people attended the session, which called for audience participation in the review process. The presentation is available online at www.biophysics.org. The panelists were:

Ravi Basavappa, Program Director, Division of Cell Biology and Biophysics (CBB), NIGMS

Jean Chin, Program Director, CBB, NIGMS

Charles Edmonds, Program Director, CBB NIGMS

Catherine Lewis, Acting Division Director, Biophysics Branch Chief, NIGMS

Donald L. Schneider, Division Director, Division of Molecular and Cellular Mechanisms, Center for Scientific Review

Peer Review at the NIH: Continuity and Change

A standing room only crowd attended the Peer Review at NIH session on Tuesday, February 21. The audience had the opportunity to hear directly from Director *Toni Scarpa* of the NIH Center for Scientific Review on how he plans to streamline the peer review process at NIH by improving communication throughout the process, shortening the review cycle, improving the assessment of innovative, high-risk, high-reward research, and attracting high-quality reviewers.

> "Applications at NIH have gone up over fifty percent in six years, increasing the burden on reviewers and straining the system."

Scarpa pointed out that applications at NIH have gone up over fifty percent in six years, increasing the burden on reviewers and straining the system. By using electronic reviews and convening study sections via video and telephone, the Center for Scientific Review could cut review costs as well as make it easier for reviewers to participate. Scarpa's PowerPoint presentation is available online www.biophysics.org/peer-review.htm.

Panelist *Ken Dill*, Co-chair of the Society's Public Affairs Committee, provided background on the Society's Bridging the Sciences Coalition and the Coalition's thoughts on the funding of high-risk/high-reward research as well as research at the interface of the life and physical, mathematical, and computational sciences. The Coalition believes that funding this type of research requires an interdisciplinary review panel, the availability of grants of varying amounts and durations, and a shorter application. Ken Dill's presentation is also available at www.biophysics.org.innovations.pdf

> "The Biophysical Society has endorsed a 5% increase for NIH for 2007, which is consistent with the increase for which the AdHoc Group for Medical Research is calling."

Public Affairs Committee Reorganizes

The Public Affairs Committee held its annual face-to-face meeting during the Society's Annual Meeting in Salt Lake City, Utah. Given the Society's withdrawal from FASEB, the Committee reorganized itself to ensure effectiveness on issues of importance to the Society membership. Three subcommittees have now been formed: the Bridging the Sciences Coalition Subcommittee, the Federal Funding Agencies Subcommittee, and the Education and Outreach Subcommittee. Each subcommittee will handle day-to-day activities in the areas for which they are responsible. Monthly conference calls of the full Committee will ensure coordination of activities and strategic implementation of resources.

Public Affairs

Federal Budget: NIH Outlook Bleak; NSF and DOE May See Increases

President Bush has requested level funding for the National Institutes of Health (NIH) in 2007, and has provided increases to both the National Science Foundation (NSF) and the Department of Energy's (DOE) Office of Science. Under the Administration's budget request, NIH would receive $28.6 billion in FY 2007. Within that amount, funding for bioterrorism counter measures research, pandemic flu research, and the Roadmap for Medical Research would increase, while all other funding within NIH would be cut The Biophysical Society has endorsed a 5% increase for NIH for 2007, which is consistent with the

(Continued on page 14.)

increase for which the AdHoc Group for Medical Research is calling. The AdHoc group is a broadbased coalition of scientific societies and disease advocacy groups that collectively advocate for NIH funding. The 5% is above inflation, but recognizes the current tough fiscal climat.

On a positive note, funding for NSF would increase 7.9% and funding for the DOE's Office of Science would increase 14.1%. NSF estimates that the increase would result in 570 additional grants being awarded next year. These increases are part of the President's American Competitiveness Initiative, and represent a significant departure from the cuts the President has proposed for these agencies over the past few years. The Biophysical Society has endorsed both of these increases through The Coalition for National Science Funding and the Energy Sciences Coalition.

The President submitted his 2007 request to Congress at the beginning of February. Throughout February, Congressional budget committees held hearings that provided agency officials with the opportunity to discuss specific program budgets in detail. These hearings will continue through March. By the end of March, the House and Senate plan to vote on the FY 2007 budget resolution. The budget resolution is a self-imposed cap that Congress passes prior to the appropriations process each year. The resolution numbers, as they currently are, would severely limit the appropriations committee's ability to increase funding for programs. On March 14, Senators Specter and Harkin introduced an amendment to increase the funding in the budget resolution for health and education programs by $7 billion. The amendment passed with strong support 73-27. In order for the money to be available, a similar amendment must also pass the House. As of press time, the amendment had failed in the House Budget Committee and had yet to be considered on the Floor.

New Buzzword in Congress: Competitiveness

On the heels of National Academies' report, *Rising above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future*, and the Council on Competitiveness report, Innovate America, Innovation and Competition have become buzzwords on Capitol Hill.

Congressmen on both sides of the aisle and in both chambers have introduced legislation based on these reports.

In the Senate, Senator Lieberman (D-CT) has a bill entitled the "National Innovation Act," while Senators Domenici (R-NM), Bingaman (D-NM), Alexander (R-TN), and Mikulski D-MD) have introduced a series of bills entitled "Protecting America's Competitive Edge Acts" ("PACE"). The Lieberman bill is based on the Council on Competitiveness Report while the PACE legislation is based on the National Academies Report. The details vary slightly, but both pieces of legislation call for increased investment in the basic physical sciences, including a doubling of the NSF budget, increased investments in mathematics and science education, and a permanent research and development tax credit. The Lieberman bill focuses primarily on NSF, while the PACE Acts focus primarily on the Department of Energy. The sponsors of both bills have indicated they will work together and would like to merge the bills at some point.

On the House side, the Republicans introduced their competitiveness agenda, entitled "The Innovation and Competitiveness Act," at the beginning of March. Participants included House Speaker Dennis Hastert (R-IL), Majority Leader John Boehner (R-OH),Majority Whip Roy Blunt (R-MO) and House High Tech Working Group Chairman Bob Goodlatte (R-VA). The plan is much like competitiveness legislation introduced in the Senate and called for by the National Academies report, with the addition of a provision calling for increased use of information technology to manage health. Chairman Boehlert (R-NY) of the House Science Committee attended the briefing announcing the Innovation and Competitiveness Act. He endorsed the legislation while also calling for support for President Bush's American Competitiveness Initiative (ACI), which calls for increased federal investment in physical science research. Boehlert has indicated that he will introduce legislation based on the ACI this spring. The House Democrats unveiled their innovation nearly five months ago, and Ranking Science Committee Member Bart Gordon (D-TX) introduced legislation on this topic in December.

The sponsors of legislation on both sides of the aisle plan to use the momentum in the competitiveness area to push their bills through this spring and summer. While the sponsors are very optimistic they can have legislation passed this year, the legislative session for Congress is very short because it is an election year. The House and Senate plan to recess in October to allow members to return home to campaign, and several week-long recesses are scheduled throughout the spring and summer for the same purpose. Thus, the sponsors will find themselves in a race against the clock to finish legislation.

While the legislation being considered is broader, it does include one of the goals of the Bridging the Sciences Coalition: increased investment in

high-risk, high-reward research. The Coalition did speak with the National Academies group that worked on the Gathering Storm report and were pleased to see some of their thoughts in the final report. The Coalition is now working with the bill sponsors to include the funding of research at the interface of the life and physical, mathematical, and computational sciences in these bills.

BPS Applauds President for the American Competitiveness Initiative

In a statement released by the American Chemical Society, the Biophysical Society endorsed President Bush's American Competitiveness Initiative. The statement was released the same day the President released his 2007 budget request to Congress.

"The ACI represents a crucial advance for the nation's scientific and technological engines of innovation, and for educating our next-generation of innovators," wrote Biophysical Society President Steven M. Block. "We applaud the President's recognition of our need to remain competitive on a global scale. U.S. high-risk research has been at high risk itself in recent years; this action is overdue." The statement can be read in its entirety at *http://acswebcontent.acs.org/PDF/budgetresponse06.pdf*

BPS Joins Effort to Understand Public Opinion on Evolution

The Biophysical Society Executive Board, at the recommendation of the Public Affairs Committee, is participating in a multi-society effort to learn more about public opinion regarding the teaching of evolution and Intelligent Design in public school classrooms. The Societies are working closely with The National Academies of Science on the initiative.

New NIH Grant Program for Young Investigators

In January, the National Institutes of Health (NIH) introduced a new career transition award entitled the "NIH Pathway to Independence Award." The K99/R00 grant award mechanism is designed to provide promising scientists with both mentored and independent research support from the same award. The new award responds to the major recommendations of a National Academies of Sciences (NAS) report issued in 2005 entitled, "Bridges to Independence." The NAS report called for new ways to mentor and support early career scientific investigators from their post-doctoral studies to running their own research programs.

In a January 27 press release, *Elias Zerhouni* stated that, "encouraging independent inquiry by promising new investigators is a major goal for NIH. We must invest in the future of our new scientists today if we expect to meet the nation's health challenges of tomorrow."

NIH will issue between 150 and 200 awards for this program in its initial year, beginning in the fall of 2006. The award will work as follows: The initial 1-2 year mentored phase will allow investigators to complete their supervised research work, publish results, and search for an independent research position. The second, independent phase during years 3-5 will allow awardees who secure an assistant professorship, or equivalent position, to establish their own research program. The award is open to any researcher working at a U.S. institution, regardless of citizenship. For more information about the NIH Pathway to Independence Program visit: http://grants.nih.gov/grants/new_investigators/index.htm.

Round Up

China: Similar to the innovation push in the United States, China has released a 15-year plan to become a leader in innovation. The plan calls for the country to increase spending from approximately $26 billion in 2004 to $110 billion in 2020. Specific target areas include protein sciences and nanotechnology.

FDA: The FDA announced on March 9 that President Bush plans to nominate National Cancer Institute Director *Andrew von Eschenbach* to be FDA commissioner. Von Eschenbach has been serving as the acting commissioner of the FDA since September 2005. The nomination requires Senate confirmation.

NIGMS: Health and Human Services Secretary *Michael Leavitt* has appointed two new members to the National Advisory General Medical Sciences Council. The new members are *Edwin S. Flores*, Ph.D., Esq, a managing partner at Chalker Flores, LLP, and *Paula E. Stephan*, Ph.D., a professor of economics and senior associate at Georgia State University - Andrew Young School of Policy Studies.

The Council, which meets three times a year, performs the second level of peer review for research and research training grant applications assigned to NIGMS. The Council also offers advice and recommendations on policy and program development, program implementation, and evaluation regarding the Institute.

Bridging the Sciences Coalition: The Coalition sponsored a session devoted to Bridging in the context of Innovation and Competitiveness at the March 2006 Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Pittcon) in Orlando, Florida. The panel included John Porter, Ken Dill, Art Ellis, the head of Chemistry at the National Science Foundation, Belinda Seto, Deputy Director of the National Institute of Biomedical Imaging and Bioengineering at NIH, and Mike Lubell, the public affairs director of the American Physical Society. The Pittcon meeting attracts over 25,000 attendees.

Biophysical Journal Editor-in-Chief
Call for Nominations

Nominations must be received by August 1, 2006

The Biophysical Society's Publications Committee is soliciting nominations for the Editor-in-Chief position of the *Biophysical Journal*. The term is for five years, beginning July 2007. This position is extremely important for the future of the Journal and of the Society. Please give it your careful consideration and thought.

Candidates for the position should be highly respected scientists in their own area of biophysics and must have a broad understanding of the field in general. The ideal candidate must have a significant level of scientific rigor, needs to be fair, diplomatic, prompt, and organized, and should have some knowledge of the workings of the Journal and of the Society.

Nominations should be sent to:
Chair of the Publications Committee
Biophysical Society, 9650 Rockville Pike
Bethesda, MD 20814
or emailed to: Rosalba Kampman at
rkampman@biophysics.org

Profile

(continued from page 3.)

continued to get his papers published and to challenge dogma that he sees as questionable. He has been no less passionate and active in his role within the Society. As the chair of the Minority Affairs Committee, Lentz shepherded the Herman Branson Summer Course in Biophysics, which is meant to introduce minority students to the possibility of careers in biophysics. Bernie Chasan, Wilma Olson, and Lentz designed the course, which was held the first year at Hampton University and the second year at Boston University. Lentz has now submitted a grant application to the MORE Division of NIH to fund the course in future summers. Also, for nearly eight years, Lentz has served on the Editorial Board of BJ, first as a Board Member, and now as Associate Editor for the Cell Biophysics section.

> "He could be tough but was always very considerate....and always found time to listen and work with the student through problems both academic and personal."

During his term as Socity President, Lentz would like to re-examine how well the Society's current activities work towards achieving the mission stated 50 years ago when the Society was founded. "When I came in," he explains, "I promised to work to make the Society feel like a small society even as we continue to grow." To accomplish this, he plans to lead a discussion within the Executive Board and Council to address several ways in which the Society works towards this mission, including considering how subgroups might take a greater role in the life of the Society. Lentz was encouraged by the enthusiasm and ideas offered at the subgroup chairs meeting in Salt Lake City, and looks forward to continuing this discussion.

Science may be Lentz' professional passion, but his family takes center stage in his personal life. His wife of 40 years, Charlotte is a dedicated teacher. Originally a pre-med student, she took some teaching courses, which turned out to be valuable as life unfolded. She taught and was an assistant principal in public schools for many years, later switching to a private school, which matched better her teaching philosophy and desire to help children. She is now retired and involved in local art projects. The Lentz' adopted three children, Luke, Adam and Tessa. "They are all very different but all reacted with similar negativity to their fathers work habits," muses Lentz. He explains that they have all made lives for themselves that are more balanced than that of an academic scientist. They have also presented Charlotte and Barry with seven wonderful grandchildren. "Being a grandfather is the pinnacle of existence!" proclaims Lentz.

In his spare time, Lentz loves exercise and the outdoors. He rides his bike to work every day, plays pick-up soccer matches on weekend mornings, and loves to kayak year round. He coached his children in soccer for 17 years and ultimately took it up himself on his 40th birthday. "It's a whole lot cheaper then going to a psychiatrist," he says. "You get all your frustrations out."

Barry feels his science is most fun when it is shared with others. As his Presidency begins, his goal is to help Society members feel more connected through their science. This challenge keeps him going. Whether he is acting as the President, Associate Editor, researcher, teacher, family man, or soccer player he never forgets why he is doing this: his passion for science and the life around him.

Board and Council

(continued from page 1.)

- Approved moving the Society's reserves position over the next two years from a 40/60 percent equities/fixed income position to a less conservative 50/50 position.
- Approved a Society Organizational Handbook as well as document retention and whistleblower protection policies.
- Elected *Stephen White*, of the University of California, Irvine, as Chair of the Nominating Committee that will prepare a slate of candidates for the 2007 Society elections. Also elected to that Committee were *Paul Allen*, *Sharona Gordon*, and *Steve Mayo*. Past-President Steven Block will serve on the Committee ex officio as will David Millar, past commitee chair.

Stephen White

- Approved formation of a new subgroup, Instrinsically Disordered Proteins, chaired in its first year by *Keith Dunker*, of Indiana University.
- Approved the scientific program for the 2007 Annual Meeting.
- Approved the slate of candidates for the 2006 Society elections. That 2006 Nominating Committee was chaired by *David Millar*, of Scripps Research Institute. Members of the Committee were *Suzanne Scarlata*, *Stephen Harvey*, *Taekjip Ha*, *Linda Kenney*, and *R. John Solaro*.

Discussions / October 19-22 / Asilomar, California

Thursday Evening - October 19th

Opening remarks.
Sharyn Endow, Duke University.

Overview: Major Unresolved Questions for all Motor Families.
Yale Goldman, University of Pennsylvania.

Friday Morning - October 20th

Session I. Motor Walking (and Limping) Mechanisms, including Mechanisms of Processivity.
Robert Cross, Marie Curie Research Institute, Chair

Myosins.
James Spudich, Stanford University.

Kinesins.
Steven Block, Stanford University.

Dyneins.
Hideo Higuchi, Tohoku University, Japan.

Ribosomes & Other Macromolecular Complexes.
Koen Visscher, University of Arizona.

Poster Session I Review
Sarah Rice, Northwestern University

Friday Evening - October 20th

Session II. Force Generating Mechanisms and Mechanochemical Transduction.
Claudia Veigel, National Institute for Medical Research, MRC, UK, Chair

Myosins.
Justin Molloy, National Institute for Medical Research, MRC, UK.

Kinesins.
F. Jon Kull, Dartmouth College.

Ion Channels.
Paul Selvin, University of Illinois.

Rotary Motors.
Hiroyuki Noji, University of Tokyo, Japan.

Saturday Morning - October 21st

Session III. Determinants of Motor Directionality H.
Lee Sweeney, University of Pennsylvania, Chair

Myosins.
Anne Houdusse, Institute Curie, France.

Kinesins.
Ron Milligan, Scripps Research Foundation.

Helicase Directional Movement.
Taekjip Ha, University of Illinois.

Bacteria & Polymerization Motors.
Daniel Fletcher, University of California, Berkeley.

Poster Session II Review
Margaret Titus, University of Minnesota.

Saturday Evening - October 21st

Session IV. Mechanisms of Motor Regulation
Richard Vallee, Columbia University, Chair

Motor Regulation: Post-translational Modification, Ca++ & Folding.
Kathleen Trybus, University of Vermont.

Motor-Cargo Regulation.
Nobutaka Hirokawa, University of Tokyo, Japan.

Motor-driven Transport Regulation by Interacting Proteins .
Steven Gross, University of California, Irvine.

Filament Dynamics & Motor-Filament Interactions.
David Odde, University of Minnesota.

Sunday Morning - October 22nd

Session V. Motors in the Cell.
Ron Vale, University of California, San Francisco, Chair

Force Generation by Myosins during Morphogenesis.
Dan Kiehart, Duke University.

Force Generation by Motors in the Mitotic Spindle.
Tarun Kapoor, Rockefeller University

Summary: What We Have Learned and Where are We Going?
Jonathan Howard, Max Planck Institute, Dresden, Germany.

Closing remarks.
Steven Rosenfeld, Columbia University.

Invited Discussants:
Kenneth Holmes, Max Planck Institute, Heidelberg, Germany.
Toshio Yanagida, Osaka University, Japan.

Upcoming Events*

May 12-16, 2006
Immunology 2006: The Annual Meeting of AAI
Boston, Massachusetts
www.aai.org

May 22-25, 2006
Carolina Workshop on Force Measurement and Manipulation in Biological Microscopy
Chapel Hill, NC
www.cs.unc.edu/Research/nano/cismm/ForcesWorkshop.htm

May 31 - June 4, 2006
CSBMCB International Meeting on Membrane Proteins in Health and Disease
Ontario, Canada
www.csbmcb.ca/e_index.html

June 18-22, 2006
Expression, Structure and Function of Membrane Proteins
Florence, Italy
www.promelab.org

June 24-29, 2006
31st FEBS Congress, Molecules in Health and Disease
Istanbul, Turkey
www.febs2006.org

June 26th-28th, 2006
4th Annual Ion Channel Retreat
Vancouver, BC
www.aurorabiomed.com

September 17-21, 2006
18th National Congress of the Italian Society for Pure & Applied Biophysics (SIBPA)
Palermo, Italy
http://sibpa.itc.it

November 5-8, 2006
4th International Congress of Electron Tomography
San Diego, California
http://4icet.org <http://4icet.org/>

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

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