

BPS Joins AIP

The Biophysical Society (BPS) has become an Affiliated Society Member of the American Institute of Physics (AIP). The AIP Affiliated Society Program, which includes 24 societies in addition to the 10 regular AIP member societies, affords the BPS the opportunity to work with all AIP societies on issues of mutual interest and to be part of a large united voice in affecting public policy and educating the public on the importance of science.

Additional direct benefits to Biophysical Society members include a discounted rate for *Physics Today* and the opportunity to purchase individual subscriptions to the ten AIP journals.

For a complete listing of AIP members, visit <http://www.aip.org/aip/societies.html>.



New Horizons in Calcium Signaling

October 10–13
Beijing, China

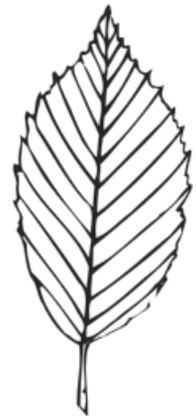
**Abstract Deadline
June 11, 2010**

www.biophysics.org

BPS Funds Green Initiatives

As part of its ongoing efforts to support initiatives that reduce its carbon footprint, the Biophysical Society this year has donated a total of \$28,000 to two environmental programs. These donations will help mitigate carbon generated by Society activities, including member travel to the Annual Meeting in San Francisco. The Society Council established a Committee to evaluate candidate environmental programs. That Committee, chaired by Past Biophysical Society President *Joseph Falke*, included Society members *Mark Arsenault*, *Henry Lester*, *Ralph Nossal*, *Jason Otterstrom*, and *Francesco Vanzi*.

The Committee's recommendation, approved by the Executive Board and Council, was to fund one global and one local environmental program. Funds donated to the Climate Trust will support research on a promising method for large-scale sequestration of atmospheric carbon. Funds donated to the City of San Francisco Carbon Fund will support a local biodiesel fuel subsidy program. For full descriptions of these two environmental nonprofits, visit their websites at <http://www.climatetrust.org/offset.html> and <http://dogpatchbiofuels.com/>.



Contents

Biophysicists in Profile	2
Members in the News	5
Grants & Opportunities	5
Careers.....	6
Public Affairs	8
Subgroups.....	9
Upcoming Events.....	12

Biophysical Society

Officers

President

Peter Moore

President-Elect

Richard Aldrich

Past-President

Henry Lester

Secretary

Dorothy Beckett

Treasurer

Linda Kenney

Council

Nancy L. Allbritton

Olaf S. Andersen

Ivet Bahar

Michael D. Cahalan

Patricia Clark

Marco Colombini

Enrique De La Cruz

Laura Finzi

Angel E. Garcia

Susan P. Gilbert

Angela Gronenborn

Donald W. Hilgemann

Vasanthi Jayaraman

Antoinette Killian

Tanja Kortemme

David Millar

Steven Rosenfeld

Catherine Royer

Petra Schwille

Peter So

Michael Wiener

Biophysical Journal

Edward Egelman, Editor-in-Chief

Society Office

Ro Kampman, Executive Director

Newsletter

Alisha Yocum, Production

Edie Sodowsky, Profiles

Ellen Weiss, Public Affairs

Erica Retrosi, Editing

The Biophysical Society Newsletter (ISSN 0006-3495) is published twelve times per year, January-December, by the Biophysical Society, 9650 Rockville Pike, Bethesda, Maryland 20814-3998. Distributed to USA members and other countries at no cost. Canadian GST No. 898477062. Postmaster: Send address changes to Biophysical Society, 9650 Rockville Pike, Bethesda, MD 20814-3998. Copyright © 2010 by the Biophysical Society. Printed in the United States of America. All rights reserved.



Biophysicists in Profile Ahmed Heikal & Erin Sheets

Biophysics molded two people into a professional and marital partnership. Ahmed Heikal is Associate Professor in the Department of Chemistry and Biochemistry at the University of Minnesota, Duluth. His wife, Erin Sheets, is Associate Professor in University of Minnesota's College of Pharmacy, where Heikal is also an adjunct professor.

Sheets grew up in a small rural Pennsylvania town with one stoplight and no fast-food restaurants. She was the first college graduate in her family. Her tool-and-die-maker dad ran a tool shop with her mom. A quarter of the way around the world, Heikal was born to a limited-resource farmer father and stay-at-home mom in a farming community in the center of Egypt's Nile Delta—and was the only person in his family to read and write.

Sheets' parents encouraged her curiosity and academic excellence, adding educational activities to family trips. Heikal's parents enabled his education by relieving him of farm work when he needed to study and ensuring time for play and adequate sleep. His two older sisters worked to help support the family while he attended school.

In middle school, Sheets left the rancher where she shared a room with one of her two sisters and walked to the end of the driveway to catch the bus. Heikal rose from the floor in his family's four-room house—two rooms to live in (one in winter), one for storage, and a large one for the animals—and walked a few miles through gardens and groves to the junior high school where he studied canning and gardening in addition to his academic classes.

Sheets' high school chemistry teacher, *Ronald Schultz*, ignited in her a love for the logic of science. "In his clear way of teaching, I got this epiphany that I could do this and make a difference," she says. Heikal credits his outstanding high school biology teacher with encouraging him to pursue higher education and study abroad. After earning BS and MS degrees in physics from Tanta University, the poor kid from the Nile Delta found himself at California Institute of Technology, studying molecular dynamics of isolated molecules in molecular beams using ultrafast laser spectroscopy, with Nobel Laureate in Chemistry, *Ahmed H. Zewail*. "He gave me the biggest break in my professional life," Heikal notes. "While it was intimidating at times to work with him, I wouldn't be here today without his unconditional support. His enthusiasm for science and the scientific approach helped shape me as a scientist."

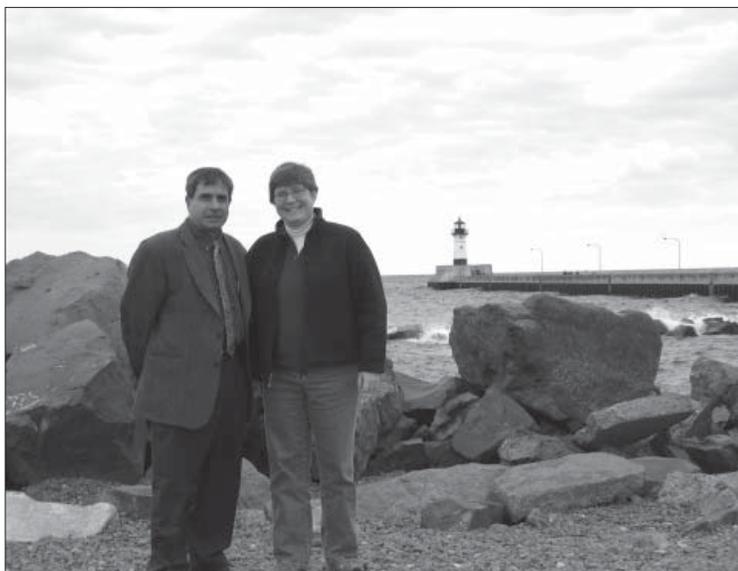
As a research associate in the lab of *Watt Webb* at Cornell University, Heikal says, “Switching from isolated small molecules to large biomolecules in complex environments such as cells or tissues, I became fascinated by the challenges and opportunities in biophysics and the leadership and scientific integrity of Professor Webb.” Webb remembers Heikal as “lively, innovative, and very easy to work with. As [Heikal] built his lab, he was extremely good at putting together experimental apparatus in an innovative, effective way. While he was here, he diagnosed the source of blinking in quantum dots, though he didn’t get credit for it.”

During Heikal’s stint with Webb, Sheets was also at Cornell for postdoc work with *Barbara Baird* and *David Holowka*. Sheets’ and Heikal’s paths merged there—when she introduced him to biomembranes and their dynamics—and have paralleled since.

“We recruit intellectually fearless students who want to tackle scientific problems using any tool available,” says Sheets. *Angel Davey*, IRTA Postdoctoral Fellow at the Laboratory of Immunogenetics at the National Institutes of Health, was the team’s first graduate student. “Working with two people with such complementary, yet different, approaches to science is not always easy, but I think I gained the best of both worlds. Erin, the receptor signaling expert, gave me an interesting experimental problem and taught me good experimental design, writing and teaching. With a hard-core physics background, Ahmed taught me practical aspects of biophotonics. Ahmed simultaneously investigates many different biological systems such as energy metabolism, model membranes, protein dynamics, and immunoglobulin E receptor signaling, while Erin focuses primarily on one system, immunoglobulin E receptor signaling.”

“As a biophysicist herself, Erin is very helpful to me and my students,” says Heikal, “and I trust her instincts.” Writing together was traumatic, however, until they learned how to

critique each other’s writing and science more effectively. “The challenge of having my wife as a colleague and collaborator is that it sometimes feels as if I am at work 24/7,” says Heikal. Sheets sees the at-home work or science talk to be less intense. “I like working with Ahmed,” Sheets says, “because we have our own independent lines of research, but complementary strengths. I’m more bio; he’s more physics. I’m more bench science; he’s more hard-core math. Both of us do microscopy—and my dad makes custom pieces for us—but our imaging systems are complementary in terms of their capabilities, so we don’t duplicate efforts.”



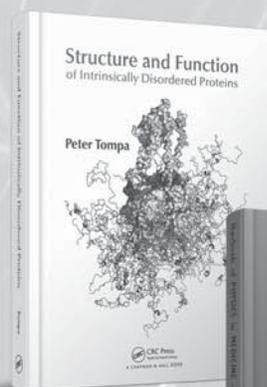
Heikal and Sheets enjoying a day at Lake Superior in Duluth.

Despite the threat of round-the-clock science, the couple balances their life together by delighting in everyday joys, like pampering their cats, gardening, cooking together, and getting outside. Both have outlets as active members of the Biophysical Society. “[The Society] can play a leading international role in improving the perception and culture of interdisciplinary research,” Heikal notes. He served on the Education Committee and participates in a number of subgroups. Sheets currently chairs the Membership Committee.

Brand-New Books in Biophysics that You Need to Know About ...

from  CRC Press
Taylor & Francis Group

Save 20%*

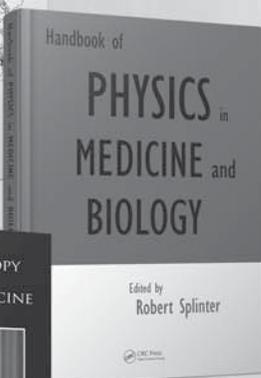


Structure and Function of Intrinsically Disordered Proteins

Peter Tompa

Hungarian Academy of Sciences, Budapest

Catalog no. C7892, January 2010, 359 pp.
ISBN: 978-1-4200-7892-3, \$99.95 / £63.99

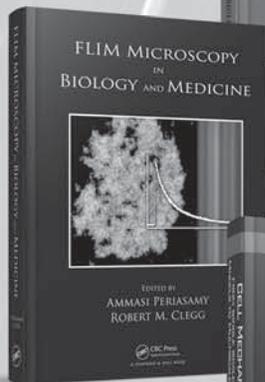


Handbook of Physics in Medicine and Biology

Robert Splinter

University of North Carolina at Charlotte, USA

Catalog no. 75241, April 2010, c. 556 pp.
ISBN: 978-1-4200-7524-3, \$149.95 / £95.00

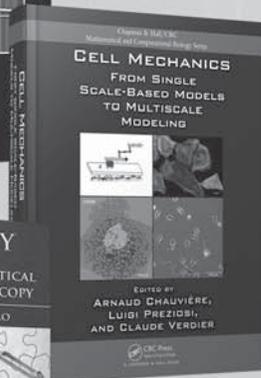


FLIM Microscopy in Biology and Medicine

Edited by

Ammas Periasamy and Robert M. Clegg

Catalog no. C7890, January 2010, 472 pp.
ISBN: 978-1-4200-7890-9, \$99.95 / £63.99



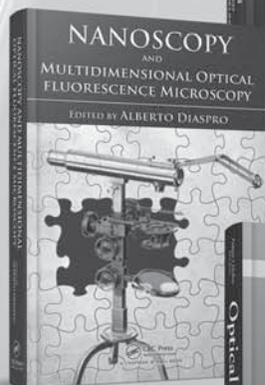
Cell Mechanics

From Single Scale-Based Models to Multiscale Modeling

Edited by

Arnaud Chauvière, Luigi Preziosi, and Claude Verdier

Catalog no. C4548, January 2010, 482 pp.
ISBN: 978-1-4200-9454-1, \$119.95 / £76.99



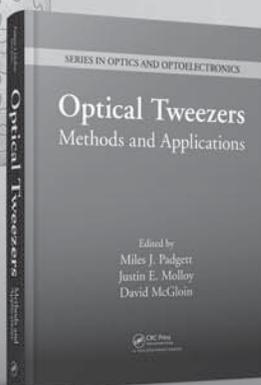
Nanoscopy and Multidimensional Optical Fluorescence Microscopy

Edited by

Alberto Diaspro

The Italian Institute of Technology and University of Genoa, Italy

Catalog no. C7886, April 2010, c. 414 pp.
ISBN: 978-1-4200-7886-2, \$129.95 / £82.00



Optical Tweezers

Methods and Applications

Edited by

Miles J. Padgett, Justin Molloy, and David McGloin

Catalog no. C7412, April 2010, c. 508 pp.
ISBN: 978-1-4200-7412-3, \$149.95 / £83.00

Enter discount code 701CM at checkout and save 20% off of any books in our biophysics collection.
We never charge for standard shipping. Order online at www.crcpress.com

Members in the News



Susan S. Taylor, University of California, San Diego, and Society member since 2000, received the 2010 Excellence in Biology Award from the Federation of American Societies for Experimental Biology.

Winners of 2011 Annual Meeting Registration

Congratulations to *Alexander Hodges* of the University of Vermont and *Cherrie Kong* of the University of Auckland in New Zealand for receiving complimentary registration to the 55th Annual Meeting of the Biophysical Society in Baltimore, Maryland, March 5–9, 2011. Meeting attendees who completed the 2010 Annual Meeting Questionnaire by March 8 were placed in a drawing to receive complimentary registration for the next meeting. The Society appreciates feedback regarding the Meeting and the scientific program and uses the input to plan future meetings.

Grants and Opportunities

Name: Transforming Biomedicine at the Interface of the Life and Physical Sciences (R01)

Submission Deadline: May 18, 2010

Objective: The goal of this funding opportunity announcement, issued jointly by NIH and NSF, is to stimulate quantitative and physical scientists to work with biomedical scientists to transform technological innovation and basic knowledge in the quantitative sciences into new or improved devices or systems for health care.

Weblink: <http://grants.nih.gov/grants/guide/pa-files/PAR-10-141.html>

Name: New Biomedical Frontiers at the Interface of the Life and Physical Sciences (R01)

Submission Deadline: May 18, 2010

Objective: The goal of this funding opportunity announcement, issued jointly by NIH and NSF, is to encourage grant applications from institutions/organizations that propose discovery research that may create entirely new areas of biomedical investigation through bridging the physical and life/behavioral sciences.

Weblink: <http://grants.nih.gov/grants/guide/pa-files/PAR-10-142.html>

Name: The Enrico Fermi Award

Objective: The award is given for outstanding contributions and achievements that are particularly distinguished and that demonstrate scientific, technical, management, or policy leadership related to basic and applied research, science, and technology supported by the U.S. Department of Energy.

Submission Deadline: June 15, 2010

Web Link: <http://www.ora.gov/fermi/index.htm>

Careers

Collaborations

The Committee for Professional Opportunities for Women (CPOW) hosted another successful installment of its Career Roundtable Luncheon at the 54th Annual Meeting in San Francisco. During this program, graduate students, postdocs and early career attendees lunched with seasoned faculty and picked their brains about negotiating the tricky parts of establishing a research career. About a dozen established faculty members from various institutions discussed topics like where to look for the right funding, how to set up collaborations, writing grants, and conflict resolution—all things helpful to know for biophysicists new to the research career.

A popular topic in this session was collaborations: how to establish them successfully, how to decline them, and what to do when they don't work out. Here are some highlights from those discussions.

- **The magic number three.** Ask at least three professors to help you—even if they don't work in your department. Of three, one will say yes. If they aren't interested in collaborating, they'll at least offer some names of potential collaborators. Remember, it's in their best interest to see you succeed; if they can't help personally, they'll steer you toward someone who can.
- **Scratch each other's back.** Collaborating should be mutually beneficial. Be open to another's ideas as you share your work. Open communication is the key to successful collaborating. Learn to trust each other, and only collaborate with people you trust.

If you're looking for a new collaborator, ask friends or a trusted mentor for suggestions.

- **Cut your losses.** Collaborative relationships are like friendships: you choose to hang around with the people who bring out the best in you. Friends who are there when the chips are down are friends worth keeping. It's the same with science. If you jive with the person you're working with, creativity flourishes and great things are accomplished. If there's tension and lack of trust in a collaborative relationship, don't cling to that setup. Let go of that contact as a potential future collaborator. Chalk it up to experience, but ask someone else next time.
- **Just say no.** If you're invited to set up a collaborative project by someone with whom you have no desire to work, say so. Politely and respectfully decline the invitation if the collaboration wouldn't be beneficial to you. Do this even if this person has a direct influence on your career. Instead of unwillingly becoming part of a team, explain that you either don't have the resources or that you have your grad student's project to consider. Helpfully offer to give your input on the research or suggest some names of other potentially good collaborators for the project.
- **It's all friends together.** Biophysics is a small community. Be nice. Be courteous. Don't make enemies. Petty arguments rarely get you anywhere in the moment you're having them, and they could count against you later when you're reaching out to others in the community for help with a project.

- **Read up.** Get your hands on the Burroughs Wellcome Fund's indispensable resource at the Howard Hughes Medical Institute website, *Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty*. This handy PDF addresses how to approach a potential collaborator, communication in collaborative relationships, some challenges you might face as an early-career collaborator and general collaboration etiquette. You can find it at: http://www.hhmi.org/resources/labmanagement/downloads/moves2_ch12.pdf.



Biophysical Society



NUS
National University of Singapore

Actin, the Cytoskeleton, and the Nucleus

Singapore
November 9-12, 2010

**Abstract Deadline
August 6**

www.biophysics.org

Mounting Systems and Motorized Stages

For Upright and Inverted Microscopes




Super Smooth Movement:
20nm resolution for absolute control

Repeatable Positioning:
Store and recall up to 50 memory positions

Versatile:
Easily configured for your unique experiments

Total Control:
Choice of control options including software

Ultra Stable:
Perfect for long electrophysiology and imaging experiments

Ultra Low Electrical Noise:
Ideal for single channel recordings

Contact us today:

Scientifica Ltd
Uckfield, East Sussex
TN22 1QQ, United Kingdom

Tel: +44 (0) 1825 74 9933
eMail: info@Scientifica.uk.com
<http://www.Scientifica.uk.com>

Public Affairs

NSF Director and NIH Deputy Director Stepping Down

Arden L. Bement, the director of the National Science Foundation, has been named to lead Purdue University's new Global Policy Research Institute (GPRI) in West Lafayette, Indiana. Bement will begin his new post as the director of GPRI, which will draw on seven different science and research disciplines at Purdue, on June 1 this year. Bement was appointed to his six-year term as director by President Bush in November 2004. He served as acting director for ten months prior to this. From 1989 to 1995, Bement also served on the National Science Board, the 24-member policy body for NSF and adviser to the president and Congress on science and engineering issues.

Raynard Kington has announced that he is leaving the National Institutes of Health (NIH) to accept a position as President of Grinnell College. Kington joined the NIH in 2000 as Director of the NIH Office of Behavioral and Social Sciences Research, and then served as Acting Director of the National Institute on Alcohol Abuse and Alcoholism. Since February 2003, he has served as the Principal Deputy Director of the NIH. From November 2008 until Frances Collin's arrival in August, he served as Acting NIH Director. As Acting NIH Director, Kington led the effort to allocate \$10.4 billion of Recovery Act money quickly and wisely, and implemented President Obama's Executive Order on human embryonic stem cell research. He also played a key role in the adoption of new ethics standards at the NIH.

Successors for Bement and Kington had not been named as of press time.

NIGMS Training and Career Development Planning

NIGMS has a long-standing commitment to research training and biomedical workforce development. To ensure that the NIGMS training activities can most effectively meet the current needs and emerging opportunities to contribute to building a highly capable, diverse biomedical research workforce, the Institute is examining its existing activities in this area.

As part of the process, NIGMS is soliciting input from the community, including university and college faculty members and administrators, current and former predoctoral and postdoctoral trainees, industry representatives, representatives of professional and scientific organizations, and other interested parties. There are two remaining regional stakeholder meetings where you can share your input. The meetings are May 25 in Chicago and June 4 in Atlanta. Registration is required and is available at <http://www.nigms.nih.gov/Training/StrategicPlan/>.

In addition, NIGMS is inviting trainees to share their perspectives by joining a Web discussion on Friday, June 11 from 1:00-4:00 PM EST. To register to participate in the discussion, visit http://meetings.nigms.nih.gov/meetings/training_webinar/.

NIH/FDA Partnership

NIH and the Federal Drug Administration (FDA) announced a new partnership in March with the goal of developing more life-saving treatments and getting them to Americans faster. The purpose of the partnership is ensure that NIH researchers are sharing information about research on emerging technologies like cell-based and targeted small molecule therapies with scientists at FDA so that FDA scientists can start developing standards for safety and effectiveness. In return, FDA scientists can help inform the NIH's research by identi-

fyng important issues in safety or quality that can be addressed early in the development of new treatments.

To facilitate the partnership, the U.S. Department of Health and Human Services (HHS) created a Joint NIH-FDA Leadership Council that will be co-chaired by NIH Director Francis Collins and FDA Commissioner, Hamburg, to oversee work between the agencies on a wide range of issues and make it easier than ever for them to find new areas for cooperation. HHS is also making \$6.75 million in grants available over the next three years for research on regulatory science, which is the science of how to best assess the risks and benefits associated with certain treatments.

New ERC President Elected

In February, the European Research Council (ERC) Scientific Council unanimously elected *Helga Nowotny*, an Austrian social scientist, as the new ERC President and chair of the Scientific Council. Nowotny is currently the ERC's Vice-President and vice-chair of its Scientific Council. She took office on March 1. The election followed the resignation of the first ERC President Kafatos in January. At the time of the appointment, Nowotny commented "I will pursue with vigour and endurance our common endeavour to make frontier research the dynamic element in confronting the challenges ahead."

The European Research Council was created in 2007 to stimulate scientific excellence in Europe by supporting and encouraging the best creative scientists, scholars and engineers of any nationality in any field of research, to work in European host institutions. The ERC has supported up to more than 900 research projects and has a total budget of €7.5 billion (2007-2013).

Subgroups

Membrane Biophysics

2010 Annual Meeting: On February 20 the Subgroup held its annual symposium on *Ion Channel Chemical Biology*, which was organized by *Dan Minor* of UCSF. The symposium was well-attended (standing-room only for most talks!), and provided up-to-date insights on the interface between ion channel biophysics and molecular and chemical biology. The detailed program can be found on the Subgroup's website: <http://www.biophysics.org/2010meeting/Program/Subgroups/MembraneBiophysics/tabid/796/Default.aspx>.

The symposium was followed by the Cole Award dinner, where the 2010 Cole Award was presented to *Ehud Isacoff* of the University of California, Berkeley. Nominations for the 2011 Cole Award will be solicited next fall.

Subgroup Leadership: Dan Minor completed his term as Subgroup Chair, and the Subgroup offers its thanks for his efforts during the past year, especially with organizing the Symposium. *Stephen Tucker* of Oxford took over as Subgroup Chair. *Paul Slesinger* of the Salk Institute was elected Chair-Elect, with his term beginning at the conclusion of the 2011 Annual Meeting. Tucker is responsible for organizing the 2011 Symposium to be held at the Annual Meeting in Baltimore next year. The theme of that symposium will be *Single Molecule Approaches to Ion Channels*.

Subgroup E-mail list: The Subgroup has an e-mail distribution list. Members should contact *Mike White* (mwhite@drexelmed.edu) for information about sending out e-mails to the Subgroup membership with announcements of conferences, meetings, or other items of interest.

— *Mike White*, Secretary-Treasurer

Intrinsically Disordered Proteins

Annual Symposium: The annual symposium of the IDP subgroup was held in San Francisco on February 20 and focused on well-developed examples representing the diverse biological functions of IDPs. The lecture hall was standing room only for most of the day. Co-chair *Elisar Barbar* introduced the first session by highlighting the IDP functions to be covered in the symposium, and included a new example from her lab, namely, formation of a poly-bivalent scaffold for assembly of multiprotein complexes, including dynein cargo domains. *Brian Chait*, the keynote speaker, discussed his work, in collaboration with the laboratories of *Michael Rout* and *Andrej Sali*, on the structure and function of the yeast nuclear pore complex.

Co-chair *Huan-Xiang Zhou's* talk focused on the principles governing the binding kinetics of ordered and disordered proteins. Zhou proposed a new role for intrinsic disorder: it allows for the formation of protein complexes that are highly specific but short-lived. He proposed this behavior is necessary for signaling and regulation.

Andreas Matouschek discussed how the targeting signal for protein degradation consists of the proteasome binding tag, where ubiquitin is attached, and an unstructured region that serves as the proteasome initiation region. *Arielle Follis*, one of the recipients of the IDP Subgroup Postdoc Award, presented the next talk on NMR and ITC studies of the interaction between Bcl-xL and p53. His results suggest entropy-driven binding due to increased mobility of a large disordered loop within Bcl-xL as well as involvement of the disordered N-terminal domain of p53 in accelerating the exchange rate of complex formation. *Ursula Jakob* presented her work on the highly conserved bacterial heat shock protein, Hsp33. The second session opened with a talk by *Joerg Gspon-*

er who gave a proteomic view of the cellular functions of disordered proteins. Particularly intriguing is the observation that the mRNA of disordered proteins is maintained at a lower copy number than the mRNA of ordered proteins. Gsponer argues that the reduced mRNA stability for IDPs reduces the probability of unintended interactions.

Ralf Langen presented his work combining data from site-directed spin labels and molecular dynamics to build structural models for amyloid fibrils. *Yaakov Levy* presented coarse-grained simulations of proteins nonspecifically bound to DNA and showed that for various systems disordered tails can enhance the affinity to nonspecific DNA and facilitate the search for specific sequences.

Cheryl Arrowsmith's talk focused on the structures of disordered histone tails. Chung-Ke Chang the other recipient of the IDP Postdoc Award, talked about disordered regions of the SARS coronavirus capsid protein. The session was rounded off by *Gary Daughdrill's* talk on the structure and evolution of disordered proteins. Daughdrill showed recent data suggesting that single amino acid mutations can have a big effect on the equilibrium ensemble of structures for the disordered p53 transactivation domain.

The subgroup officers would like to thank all of the speakers and the co-chairs for making the 2010 IDP subgroup symposium a big success.

—*Gary W. Daughdrill*, Secretary/Treasurer

Bioenergetics

Annual Symposia: The 2010 Annual Subgroup Symposia were tremendously successful. The morning symposium co-chaired by *Petra Fromme*, Arizona State University, and *Gary Brudvig*, Yale University, was entitled *Photosynthesis and Solar Energy Conservation* and featured speakers *Dave Kramer* of Washington

State University, *Robert Blankenship* of Washington University, *John Golbeck* of Pennsylvania State University, *Tom Moore* of Arizona State University, *Stenbjorn Styring* of Uppsala University, and *Ann Jones* of Arizona State University. The science presented was excellent and will be summarized in the next newsletter. Standing room only was available for attendees at times during the session.

Both the enthusiasm for the science and attendance were as high in the afternoon symposium, *Mitochondria in Diseases* co-chaired by *Jan Hoeko* of Thomas Jefferson University and *Paolo Bernardi* of University of Padova. *Samir Zakhari* of NIAAA/NIH gave an overview of funding opportunities at NIH for investigators in mitochondrial disease. *Sarah Calvo* of Broad Institute presented a talk about using integrative genomics to discover additional mitochondrial diseases. *Massimo Zeviani* of Institute Neurologico Carlo Besta showed that a mutation causing multiple defects in respiratory chain proteins with accompanying decreases in cytochrome oxidase and Complex I activities in cells was in AIF (apoptosis inducing factor). The mutation truncated the protein into a completely soluble form. *Karin Nowikovsky* of University of Vienna discussed how the LETM1 gene product interacts strongly with the K⁺ channel in the mitochondrial inner membrane. In *Drosophila*, this interaction results in swollen mitochondrial and less mobility in flies. Mutations in the LETM1 may occur in Wolf-Hirschhorn syndrome patients. *Narayan Avadhani*, University of Pennsylvania, showed data supported that mitochondrial targeted cytochrome P450 has pathological consequences under conditions of high cellular cAMP. The CYP2E1 mitochondrial isoform of P450 has loosely coupled activity producing superoxide naturally which may lead to the pathology. The last talk of the day by *Daria Mochly-Rosen* of Stanford University presented her work showing the up regulation of PKC protects hearts from infarctions and that ethanol can up regu-

late PKC. An increase in mitochondrial aldehyde dehydrogenase activates the protection against infarcts. The diversity of talks in both sessions was simply incredible and showed bioenergetics subgroup has some outstanding science being carried out by its members.

The program of the day also included awards for our promising post docs and graduate students. The Young Bioenergeticist Award was presented to *Pablo Marco Peixoto* of New York University. The Bioenergetics Student Research Achievement Award was given to *Christoph Nowak* from Max Planck Institute, Mainz.

At the Subgroup business meeting, it was decided that there will be an election this spring for new Council members and that the Chair of the Subgroup will continue for another year.

—*Lawrence Prochaska*, Chair

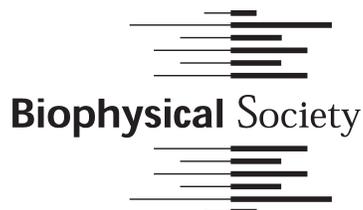
Have you joined a Subgroup?

Become active in one of the current subgroups:

Bioenergetics
Biological Fluorescence
Exocytosis & Endocytosis
Intrinsically Disordered Proteins
Membrane Biophysics
Membrane Structure & Assembly
Molecular Biophysics
Motility
Permeation & Transport
Nanoscale Biophysics (new in 2011)

Interested in forming a new subgroup?

For information visit



9650 Rockville Pike
Bethesda, Maryland 20814-3998

Presorted
First Class Mail
U.S. Postage
PAID
Bethesda, MD
Permit No. 5460

Biophysical Society Newsletter—May 2010

Upcoming Events

June 24–25, 2010

*NIH Regional Seminar on Program Funding
and Grants Administration*

Portland, Oregon

<http://grants.nih.gov/grants/seminars.htm>

June 27—July 2, 2010

55th Annual Meeting of the Health Physics Society

Salt Lake City, Utah

<http://www/hps.org>

July 7–10, 2010

Summer School in Biophysics AT UT/ORNL

Knoxville, TN

[http://www.csm.ornl.gov/workshops/biophysics10/
index.html](http://www.csm.ornl.gov/workshops/biophysics10/index.html)

July 18–22, 2010

*AAPM 2010- 52nd Annual Meeting of the American
Association of Physicists in Medicine*

Philadelphia, Pennsylvania

<http://aapm.org/meetings/>

August 8–13, 2010

Science & Technology Policy Gordon Conference

Waterville Valley, New Hampshire

<http://www.grc.org>

August 9–13, 2010

Australia-Croatia Workshop on Antimicrobial Peptides

Split, Croatia

<http://split4.pmfst.hr/konferencija/>

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