

Biophysical Society

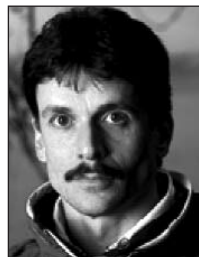
Newsletter

January/February 2008 Issue

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Zagotta Named 2008 Cole Awardee



William N. Zagotta

The Membrane Biophysics Subgroup has selected William Zagotta as the 2008 recipient of its K.S. Cole Award. Zagotta, from the University of Washington School of Medicine and Howard Hughes Medical Institute, will be presented the award in Long Beach at the Subgroup's annual dinner on February 3. For the complete story, see page 5.

Record Number of Travel Awardees for 2008 Meeting

Over 135 meeting attendees have been selected to receive travel awards to the upcoming meeting in Long Beach. The Education Committee awarded 53 student travel awards to Society student members. This highly competitive program grows in applications and awards each year, with 120 applications for the 2008 meeting.

The Minority Affairs Committee granted 16 awards to student and faculty applicants, including three for students selected for their outstanding poster presentations at the SACNAS and ABRCMS meetings.

This year, the BPS International Relations Committee worked jointly with IUPAB to select the international travel awardees. In total, 68 international travel grants were awarded with funding provided by IUPAB and the BPS. Awards went to students, post-docs, and senior scientists.

For a complete listing of awardees, see pages 9-10.

2009 Society Awards Call for Nominations

April 1, 2008, is the deadline to nominate members of the Biophysical Society for the 2009 Society Awards. Visit www.biophysics.org for information on the awards and required nomination material.

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Biophysicist in Profile



Harel Weinstein

For Harel Weinstein, the incoming Biophysical Society President, working in a field other than science would have been an “untenable proposition.” He was fascinated by science as a child because it seemed to answer all the mysteries of his childhood and adolescence. Weinstein’s interest in science was so strong that by the age of twelve, his father began introducing him as, “my son the ‘atomic physicist.’” Weinstein admits that he was very bookish as a child. “Today,” he notes, “we would call it geeky.” Not that Weinstein did not have other interests—at one point of his childhood he considered a career as a theater director. In the end though, his fervent passion for science won out.

Weinstein was born in 1945 in post World War II Europe. His parents, Adolf and Clara, had survived the war and the

graduated from high school at the age of sixteen. From there, he entered the Technion Institute of Technology where he completed his undergraduate and graduate work. By the time he was old enough to begin his compulsory military service in the Israeli army, Weinstein had completed his master’s program. Although required military service is only three years, Weinstein’s achievements made him an ideal candidate for the officer’s program, into which he was drafted for an additional year.

At the end of his military service, Weinstein returned to Technion, where he earned a PhD in 1971—at the age of 26. Although he had always been interested in molecular science, he decided to pursue physics instead. “I thought that it explained everything that I cared about.”

Weinstein describes himself during this period as rendered “cocky and arrogant” by the power he perceived in the knowledge of physical and chemical theory he had learned, believing that nothing could now remain a mystery to him for too long.

But “I decided that there were only two frontiers worthy of my attention,” he says of himself, “one was cosmology and the other was biology. And so I decided to take biology by storm.” He chose to pursue work in biology because it dealt with the present, rather than the perspective of eternity that is cosmology. But it was biology with a twist: “I wanted to understand what makes us tick from a physics point of view,” he explains.

During this period, Weinstein married his wife Barbara, who was an architecture student. Their longstanding partnership has provided him with an altogether

“He is a deep thinker and can be highly critical as well as highly appreciative.”

Holocaust by hiding in (then) Austrian territory. After the war, Weinstein’s father worked as a diplomat and traveled extensively throughout Europe, taking his son along. Through these travels, Weinstein learned to speak many European languages. He attended local schools wherever his family lived, instead of diplomat schools, and made friends from several countries with whom he still keeps in contact.

Weinstein’s family moved to Israel in 1959. An exceptionally bright student, he

different perspective. Viewing life “through the eyes of an architect,”

Weinstein explains, is very different than from a physicist’s perspective. Weinstein and his wife have one son, Elhav, whose name is derived from both of his parents’ Hebrew names. Elhav is currently a medical student in his fourth year at Columbia University, deciding on a specialty in medicine.

Since Israel is such a small country, Weinstein felt compelled to pursue his postdoctoral work abroad, planning to spend about nine months working with a

distinguished theoretician, Robert G. Parr at Johns Hopkins University. This, however, led to a much longer stay in the United States than anticipated, as Jack Peter Green, then chair of the pharmacology department at Mount Sinai School of Medicine in New York City, became interested in Weinstein's work at Hopkins and invited him to come to Mount Sinai as an assistant professor. Weinstein was drawn to pharmacology because it involved the "chemistry of medicine" and was based on the natural sciences, an interest shared by Green and Weinstein. James Black, a Nobel laureate who at the time had an adjunct professor appointment at Mount Sinai School of Medicine and visited frequently, remembers that "the huge intellectual bond between Jack and Harel was their passion for theoretical chemistry." Weinstein became a full professor in the Pharmacology Department at Mount Sinai Medical School in 1979. In 1981, Weinstein and Green organized a conference on Quantum Chemistry in Biomedical Sciences for the New York Academy of Sciences. They also edited a pioneering book on quantum mechanics in biological systems, and Weinstein regards Green as one of his most influential mentors.

In 1985, Weinstein was appointed Professor and Chairman of the Department of Physiology and Biophysics at Mount Sinai School of Medicine. Jonathan Javitch, Professor of Psychiatry and Pharmacology in the Center for Molecular Recognition at Columbia University and Director of the Division of Molecular Therapeutics at the New York State Psychiatric Institute, met Weinstein while giving a seminar at the Medical School and was struck by Weinstein's professional character. "He has extremely high professional and ethical standards," Javitch says. "He expects a lot and gives a lot in return. He is a deep thinker and can be

highly critical as well as highly appreciative." Javitch also notes that Weinstein is exceedingly dedicated to his trainees and colleagues.

In 2002 Weinstein moved to the Weill Cornell Medical College of Cornell University in New York City as Professor and Chairman of the

"Weinstein strongly feels that there is nothing more akin to the concept of biophysics than bridging the sciences that can help us understand biology"

Department of Physiology and Biophysics, and Director of a new Institute for Computational Biomedicine. He was recruited as a Tri-Institutional Professor with joint appointments at Rockefeller University and Sloan-Kettering Institute as part of a program enabled by an eighty-five million dollar donation. Today he is part of the academic life at all these institutions, including Cornell University's Ithaca campus (most recently he taught a teleconference course entitled *Biophysical Methods*, which is combined between the Medical School and the Ithaca campus and designed mainly for graduate students, though several "gifted under-



Harel Weinstein with members of his lab.

graduates" also take this course). He conducts research in a lab that fluctuates in size between fifteen and twenty members. Weinstein describes his teaching style as Socratic. "My graduate students are thrown into very large pools and forced to learn to swim in them," he says. His postdoctoral students often develop their own projects and have a lot of independence. Many

of them have moved on to their own labs in academia, and others are group leaders in industry; all "have acquired the ability to engage their environment in solving the problems they are interested in."

Currently, Weinstein's own research involves mathematical models and simulations of biological systems at multiple scales, from the molecular scale to mesoscale, and all the way through to whole tissue simulations. His primary focus in molecular biophysics is on the molecular machines that are involved in the cell's signal transduction. Weinstein's research team examines the dynamics of these machines that allow them to perform their functions, and calculates the resultant movements of proteins inside the crowded environments of the cell that lead to the changes in the state of the cell, and the intercellular communication that occurs as a result of these changes in cell states. The most immediate applications for this research are in neurotransmission and disease control, as in cancer and drug abuse.

Weinstein's initial interest in characterizing the properties of biological systems of the smallest scale has also brought him to drug design based on drugs that mimic activators and blockers of the molecular machines studied in his lab. He "rode the evolution" of biology and medicine and followed experimental and computation development, never getting stuck in one approach or way of thinking. Javitch, who has published ten papers with Weinstein, notes that in addition to Weinstein's "deep understanding of biophysical chemistry and its relationship to protein structure," he has "a very unusual interest in and zeal for combining experimental and computational approaches." Weinstein has constantly evolved his own questions and approaches with what was occur

(Continued on page 7.)

Public Affairs

Learn Where the Presidential Candidates Stand on Research and Health

Do you know where the candidates for President 2008 stand on research issues? You can find out by visiting www.yourcandidatesyourhealth.org. All 2008 presidential candidates have been invited to respond to the *Your Candidates—Your Health 2008* voter guide questionnaire. Candidates' answers appear as they entered them online. Responses received from candidates who are no longer running do not appear on this site.

Research!America is in the process of expanding the initiative to the Congressional races.

New Evolution Resources Available

1) Documentary Features Dover Intelligent Design Trial

The NOVA documentary, *Judgment Day: Intelligent Design on Trial*, is available for viewing on the NOVA website, <http://www.pbs.org/wgbh/nova/id/>. The two-hour program is broken down into chapters to ease viewing. In addition to the program, the website includes interviews with the Executive Producer, the "father" of Intelligent Design, Phillip Johnson, and biologist Ken Miller, as well as mappings to science standards and lessons for educators.

2) Science, Evolution, and Creationism Published

The National Academy of Sciences (NAS) and Institute of Medicine (IOM) released *Science, Evolution, and Creationism*, a book designed to give the public a comprehensive and up-to-date picture of the current scientific understanding of evolution and its importance in the science classroom.

Through its membership in the Coalition of Scientific Societies, the Biophysical Society provided funding for this publication.

In the book, the NAS and IOM strongly maintain that only scientifically based explanations and evidence for the diversity of life should be included in public school science courses. "Teaching creationist ideas in science class confuses students about what constitutes science and what does not," the committee stated. The book also makes clear that the evidence for evolution can be fully compatible with religious faith since science and religion are different ways of understanding the world.

Copies of the publication can be downloaded for free at http://www.nap.edu/catalog.php?record_id=11876. Print copies are also available for purchase on the website.

3) Findings from the Survey on the Teaching of Evolutionary Science Published

Two years ago, the Biophysical Society joined a coalition of scientific societies interested in working together to promote the teaching of evolution in public school classrooms. The 17 participating scientific societies, representing the physical, chemical, biological, and social sciences and science teachers communities conducted a national survey to examine attitudes toward science and scientists, views on evolutionary science in the context of education, and means through which the scientific community can effectively bolster support for teaching evolution and related subjects.

The survey found that most respondents accepted that life evolved, many accepted that it evolved through natural processes, and more favored teaching evolution than creationism or intelligent design in science classes. The majority of respondents ranked developing medicines and curing diseases as the most important contributions of science to

society, and they found promoting understanding of evolutionary science's contribution to medicine to be a convincing reason to teach evolution. Respondents viewed scientists, teachers, and medical professionals favorably, and most were interested in hearing from these groups about science, including evolution. These data suggest that the scientific community has an important role to play in encouraging public support for science education.

The findings from this survey were printed in six journals in order to distribute the information as widely as possible to the scientific community. Links to the journal articles can be found at www.evolution.faseb.org/sciencecoalition.

FY 2008 Science Budgets Disappointing

On December 27, the President signed H.R. 2764, which provides funding for most federal programs for FY 2008, including the National Institutes of Health (NIH), the National Science Foundation (NSF), and the Department of Energy (DOE). The budget is especially disappointing for the physical science agencies, which were slated to receive large increases this year as part of the American Competitiveness Initiative that increases had bipartisan support.

The final budget numbers are well below those that were in earlier bills because the President insisted that Congress pass a domestic budget that fell within the budget he had proposed to Congress in February 2007. In November, the President vetoed a bill that would have funded the NIH, the Department of Education, and the Department of Labor because it was \$10 billion over his requested amount. Congress did not have enough votes to override the veto.

Budget information for each agency is provided on following page.

NIH

The final bill provides \$29.5 billion for the NIH for 2008. Nearly all the Institutes will receive flat funding. Most of the 0.9% increase will go to the Global Fund for HIV/AIDS. When the biomedical inflation rate of 3.7% is taken into account, the NIH will have less money to spend in 2008 than in 2007. The previous bill (H.R. 3043), vetoed by the President in November, included a 3.1% budget increase.

In addition, report language in the bill makes it mandatory for NIH grantees to make their published research papers available free of charge within one year of publication. Previously, grantees were asked to do so voluntarily.

National Science Foundation

The National Science Foundation's budget for 2008 is \$6.0 billion. As part of the American Competitiveness Initiative, the President and both chambers of Congress had previously approved 8-10% increases for the agency this year. In the end, the agency ended up with only a 2% increase over the 2007 budget.

Department of Energy Office of Science

The Department of Energy Office of Science took a big hit in the final omnibus appropriations bill. Increases between 15 to 18% made it through the President's request, House and Senate appropriations, and authorizations, but mostly vanished in the final bill. The DOE Office of Science's budget for 2008 is \$4.0 billion, a 4.6% increase over 2007. Only the advanced computing and biological and environmental research portfolios did well in Science, with increases of 24% and 13%, respectively.

Subgroups

Bioenergetics

Upcoming activities for the membership of the Bioenergetics subgroup for the spring/summer include election of new council members (nominations are solicited) and a new subgroup treasurer. In addition, the subgroup council will be reviewing, editing, and revising the titles and groupings of the topics for our poster/platform presentations. For our members thinking ahead to the summer of 2008, a partial list of upcoming meetings in bioenergetics is presented below. Subgroup members are encouraged to submit other relevant meetings omitted from the list to the subgroup chair for transmission to the subgroup membership.

June 22-26, 2008

Bari International *Symposium on Mitochondrial Physiology and Pathology*

June 25-28, 2008

The United Mitochondrial Disease Foundation, The Mitochondrial Medicine Society (MMS), and The Mitochondria Research Society (MRS)

Setting the Pace in Mitochondrial Medicine

Hyatt Regency Hotel, Indianapolis, IN

July 19-24, 2008

The European Bioenergetics Conference 2008 (EBEC 2008) will be held in Trinity College, Dublin. The Conference will comprise Plenary lectures and three parallel symposia in areas such as mitochondrial dysfunction, metabolic diseases, mitochondria in brain function/neurodegeneration, and mitochondrial dynamics, as well as symposia on core topics such as Mitochondrial Biogenesis, ATP-synthase/ATPases, Membrane Transporters, Electron Transport Chain Complexes and Light Driven Energy Transduction.

Gordon Research Conferences
Summer 2008

- I. Photosynthesis
June 22-27, 2008
Mount Holyoke College
South Hadley, Massachusetts
- II. Cell Death
July 6-11, 2008
Il Ciocco
Lucca (Barga), Italy
- III. Mitochondria & Chloroplasts
August 10-15, 2008
University of New England
Biddeford, Maine

—*Lawrence Prochaska*,
Subgroup Chair

Membrane Biophysics

Cole Awardee

William N. Zagotta, of the University of Washington School of Medicine and Howard Hughes Medical Institute is the 2008 recipient of the K.S. Cole Award. The award will be presented at the Membrane Biophysics Subgroup annual dinner on Saturday, February 3, 2008. The Cole Award is given in honor of Kenneth S. (Kacy) Cole, and recognizes an individual who has contributed significantly to the field of membrane biophysics.

Zagotta has been a pioneer in analyzing the conformational gating mechanisms of ion channels, starting with the gating of the voltage-gated Shaker K⁺ channels in *Drosophila* and continuing with his present research unraveling the mechanisms of the cyclic nucleotide-gated ion channels. A colleague summarized his contributions to the field in this way: "Zagotta's specialty has been combining detailed mechanistic thinking, delicate electrophysiological measurements, direct structural determinations, and molecular and kinetic model building."

Eitan Reuveny, Chair
Carol L. Beck, Secretary-Treasurer

Intrinsically Disordered Proteins (IDP)

A Year-End Note from the IDP Chair

A little more than two years ago many of you received an e-mail message containing a statement of purpose, a proposed bylaws document, and a petition regarding the formation of the Intrinsically Disordered Proteins Subgroup. Almost twice the number of required signatures was returned over a three-month period, and these were submitted to the Biophysical Society Office. The petition was accepted, and thus an organizational meeting, attended by about 35 members, was held at the 50th Annual Biophysical Society Meeting, February 18, 2006, in Salt Lake City. At this organizational meeting, we selected a group of acting officers and a pair of program co-chairs. This was followed by approval of the formation of the IDP Subgroup by the Biophysical Society Council later in that same meeting. After slightly more than one year, at the 51st Annual Meeting, March 3, 2007, in Baltimore, we held our first business meeting, at which our bylaws were adopted and a slate of officers was elected for the year, including co-chairs for the 2008 program. We also held our first IDP Symposium: excellent talks were given at this inaugural event, and the assigned room overflowed with interested people.

The year 2007 was especially significant for IDP members. Following the IDP Subgroup symposium in March, an outstanding meeting was held in Budapest, Hungary, in May, organized by Peter Tompa and Joel Sussman. At this meeting it was decided to propose a Gordon Research Conference (GRC) focused on these proteins and to alternate between the US and Europe. The GRC proposal is nearly complete. Many of you will be contacted to provide supporting letters for this effort.

Meetings of Interest

Sonia Longhi and *Richard Haser* are organizing an Atelier de Formation (Workshop) Inserm on *Intrinsically Disordered Proteins and Associated Pathologies: Prediction, Characterization, and function* to be held May 19-20, 2008, in France. Contact *Sonia Longhi* for more details (Sonia.Longhi@afmb.univ-mrs.fr).

The Protein Society has decided to include a symposium on IDPs at their next annual meeting, which will be held in July 23-28, 2008, in San Diego. Two of the speakers at the Protein Society IDP Symposium will be selected from the abstracts submitted by young investigators (deadline for submission, March 19).

Please support one or both of these meetings, especially the one closer to you, if you can. Abstracts are welcome at both. Participating in either of these meetings will help raise the visibility of IDPs to the broader biological community.

The first biophysical study of an IDP that this writer has been able to find reported optical rotation comparisons of native casein with native and denatured globular proteins, leading to the conclusion that "These results suggest that casein occurs in milk in an unfolded configuration, which may be rapidly digested by proteolytic enzymes" (McMeekin, T.L. *Milk Proteins*, J. of Food Protection 15: 57-63 [1952]). In other words, the disordered state of casein makes it very easy to digest. Having easily digestible protein is certainly an important feature of mother's milk. Thus, the second year of the IDP Subgroup will occur in the 56th anniversary year of the start of IDP biophysics. Like fine wine, the IDP community is being slow to mature.

Let me thank the 2nd IDP symposium co-chairs (*David Eliezer* and *Rohit Pappu*), the council members (*Vladimir Uversky*, *Vinod Subramanian*, and *Sonia Longhi*), the secretary-treasurer (*Trevor Creamer*), and the

chair-elect (*Richard Kriwacki*), all of whom have put in an outstanding amount of effort to launch the IDP subgroup. The hard work of these individuals has made the job of chair superfluous. Thanks entirely to this group of people, a strong foundation for the IDP subgroup has been laid.

Think more about IDPs: they are really cool.

Recent Papers of Note

Higurashi M, Ishida T, Kinoshita K. Identification of transient hub proteins and the possible structural basis for their multiple interactions. Protein Sci. 2008; 17:72-78.

*Jönsson TJ, Johnson LC, Lowther WT. Structure of the sulphiredoxin-*in*-peroxiredoxin complex reveals an essential repair embrace.* Nature 2008; 451:98-101.

—*Keith Dunker*, Subgroup Chair

BPS at SACNAS and ABRCMS

The Biophysical Society participated in the 2008 meetings of the Society for Advancement of Chicanos and Native Americans (SACNAS) and the Annual Biomedical Research Conference for Minority Students (ABRCMS) held in October and November, respectively.

The SACNAS meeting, held in Kansas City, Missouri, October 11-14, 2007, had an overall attendance of 2000. Society members *Louis Markey*, *Barry Gold*, *Ana Maria Soto*, and *Yuri Lyubchenko* presented a symposium on their biophysical research and interacted with attendees at the Society booth. Several students who presented posters at SACNAS were offered travel awards to the Biophysical Society meeting in Long Beach.

Don Rufus Ranatunga represented the BPS at the ABRCMS meeting,

which was held in Austin, Texas, November 7-10, 2007. Ranatunga also served as an onsite judge for the student poster presentations. Over 2000 students, postdocs, faculty, and administrators attended the ABRCMS meeting. Staff members *Julianna Wittig* and *Alisha Yocum* helped staff the Society booth, which was one of 230 exhibits there. Three students who presented posters at ABRCMS were offered travel awards to the Society meeting in Long Beach.



Picture of the Society Minority Affairs Booth at AMRCM held in Austin, Texas

(Profile continued from page 3.)

ring in biology at the time. As an example, he cites his lab at Weill Cornell as a hub of extremely powerful computing and imaging capabilities.

Weinstein became a member of the Biophysical Society through its Annual Meetings, which are widely attended by his students and fellow researchers. The Society’s mission was closely related to Weinstein’s own work and interests, and was very important to his students as well. “The moment I found out it existed,” he explains, “I became a member.”

Weinstein is excited about becoming president of the Society. David

Hajjar, Dean of the Graduate School of Medical Sciences at Cornell University, believes that as president Weinstein “will work tirelessly to move the agenda of the Society forward.” Javitch shares the same belief, stating that Weinstein is “energetic and dedicated and will be a tireless advocate for the Society and for forging connections and opportunities for its members.” Weinstein strongly feels that there is nothing more akin to the concept of biophysics than bridging the sciences that can help us understand biology, and in his new role as president, he intends to focus on this issue. He explains that there are many scientists, such as structural biologists, who do biophysics but are not necessarily aware

that their approaches are part of the discipline of biophysics. The Biophysical Society and its Annual Meeting is not their venue for scientific expression and exchange. As president, Weinstein would like to change this. In addition, he feels that it is a “heavy time for biophysics” since biophysics will need to bring about a novel way of thinking—a way to deal with the nation’s prosperity and national interests—through a combination of the disciplines of biomedicine,

“...it is important to have a combination of biological thinking and a strong focus on energy, because it can impact our nation’s basic survival and national security.”

physics, math, and chemistry. Weinstein believes that the Biophysical Society has a major role to play in this effort. He asserts that it is important to have a combination of biological thinking and a strong focus on energy, because it can impact our nation’s basic survival and national security. He believes that the Society can be one important player in this effort. “The Society can foster, stimulate, excite its members about this, and present the opportunities to everybody,” Weinstein explains. He acknowledges that the process leading to large scale practical results may take decades, but he intends to get it started. “What we learn about energy interconversion at

the atomic, subatomic, and molecular level from biology and what we know about physics and what we can compute is going to be a major mover in creating new paradigms of energy transformation.”

In the future, Weinstein would like to see the discipline of biophysics grow more powerful by partnering with all the other natural sciences and integrating itself into the physical study of complex biological systems. Whereas in the first revolution, biophysics became more molecular and stimulated molecular biophysics, the next one, Weinstein predicts, will involve all aspects of biophysics “scaling up to true biological systems, such as whole organisms.”

Despite Weinstein’s intense commitment to his career, he still reserves time for cultural life in New York and goes to the theater at least once a week. He also shares an affinity for music with his sister, Fritz, who is a musicologist living in Israel. Once a piano player as a child, Weinstein is now an avid opera fan. Although he had never been interested in playing sports, his son Elhav’s interest in tennis infected his father, who now follows the sport with him.

At the young age of six, an insightful Elhav wrote in his school essay, “My father’s work is also his hobby.”

(Continued on page 11.)

New Feature!

How the Society Works

Biophysical Society Membership Benefits and Types

The Biophysical Society (BPS) will this year grow to over 8,000 members, but do you know what benefits you receive when you pay your membership dues? Do you know the types of membership the Biophysical Society offers?

BPS members receive many intangible benefits, including representation through committee outreach and advocacy efforts for the field of biophysics and for its funding at the NIH, NSF, DOE, and other agencies. The tangible benefits are many and in multiple areas including publications, meetings, career development, and funding opportunities, to name just a few.

Biophysical Journal (the #1 peer-reviewed journal in Biophysics)

- All Members receive FREE ONLINE access to BJ Online.
- Members who publish in BJ pay \$20 less PER PAGE than do non-members.
- Members who publish in BJ receive one FREE COLOR illustration if it is deemed scientifically necessary by the Editor.
- Members may subscribe to the print BJ for a substantially reduced rate.

Other Publications

- Members receive the bi-monthly Biophysical Society Newsletter.
- Members pay reduced rates for the Annual Reviews of Biophysics.
- Members receive a complimentary Membership Directory that includes a listing of members as well as a break down of their geographic location and areas of research.

Annual Meeting

- Members pay significantly reduced registration rates to the Annual Meeting.
- Only members may submit, sponsor, and present an abstract at the Annual Meeting.
- Members are eligible for travel awards to the Annual Meeting.
- Members receive the Annual Meeting Abstracts CD.

Career Development

- Society members may post their resumes free of charge on the BPS online Job Board.
- Employers who are BPS members may post job openings on the Society's online job board for rates far lower than those paid by non-members.
- Members can sign up to receive the Next-Step electronic newsletter.

Other

- Members are eligible for nine prestigious Society Awards.
- Members are eligible for funds to support meetings they organize.
- Members are eligible to join subgroups and to create new subgroups in their areas of research.

Membership Types

The purpose of the Biophysical Society is to encourage development and dissemination of the field of Biophysics. The Society has two membership types, Regular and Student, and six membership rates.

Regular Members are scientists who share the stated purpose of the Society and who have educational, research, or practical experience in biophysics or in an allied scientific field.

- Regular Rate: \$160 annually
- Early Career Rate: \$55 annually
This rate is available to regular members for a period of six years after they have received their first professional degree.
- Emeritus Rate: \$0 annually
Regular members are eligible for Emeritus status if they are retired from the field, are at least 60 years of age, and have paid regular rate member dues to the Society for at least ten years.
- World Bank Rate: \$50 for first year of membership
This is a one-time rate for new members who reside in countries listed as low, lower-middle, and upper-middle countries at <http://www.worldbank.org/data/countryclass/classgroups.htm>

Student Members are members pursuing a course of study in biophysics or in a related field.

- Student Rate: \$25 per year for up to five years.
- World Bank Student Rate: \$10 per year for up to five years.
This rate is available to student members who reside in countries listed as low, lower-middle, and upper-middle countries at <http://www.worldbank.org/data/countryclass/classgroups.htm>

2008 Travel Awardees

International Travel Awardees

Shahbaz J. Khan, Kyoto University, Japan
Judit Toth, Institute of Enzymology, Hungarian Academy of Sciences, Budapest, Hungary
Denis E. Kainov, Institute of Genetics and Molecular Biology, France
Maria A. Frias, Universidad de Tucuman, Argentina
Feride Severcan, Middle East Technical University, Ankara, Turkey
Vladimir P. Tychinsky, Moscow State Institute for Radioengineering, Electronics and Automation, Russian Federation
Reinaldo V. DiPolo, Instituto Venezolano de Investigaciones Cientificas, Caracas, Venezuela
Ferenc Papp, University of Debrecen, Hungary
Elsbeth B. Elliott, University of Glasgow, United Kingdom
Jorge E. Sanchez, Universidad Autonoma de San Luis Potosi, Mexico
Pablo G. Nieto, Instituto de Fisica, San Luis Potosi, Mexico
Marcin Balcerzak, Nencki Institute of Experimental Biology, Warsaw, Poland
Piotr R. Koprowski, Nencki Institute of Experimental Biology, Warsaw, Poland
Chiara Stringari, University of Florence, Italy
Jose D. Munoz, Universidad Nacional de Colombia, Bogota, Colombia
Armen Trchounian, Yerevan State University, Armenia
Naranamangalam R. Jagannathan, All India Institute of Medical Sciences, New Delhi, India
Gusztav Schay, Semmelweis University, Budapest, Hungary
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Manuel Gutierrez-Aguilar, Instituto de Fisiologia Celular, Mexico
Xing Liu, University of Leeds, United Kingdom
Silvina B. Gayol, Centro de Neurociencia de Valparaiso, Chile
Vivian M. Gonzalez-Perez, Centro de Neurociencia de Valparaiso, Chile
Md. I. Hossain, Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences, Japan
Iffath A. Ghouri, University of Glasgow, United Kingdom
Ariel E. Contreras, University of Chile, Santiago, Chile
Carlo Manno, Instituto Venezolano de Investigaciones Cientificas, Caracas, Venezuela
Nevenska Juretic, University of Chile, Santiago, Chile
Alexander M. Ryvkin, Ural State University, Russian Federation
Jiansen Jiang, Tsinghua University, Beijing, China
Alka Shukla, The University of Queensland, Brisbane, Australia
Xu-Long Wang, Shanghai Jiao Tong University, China
Vanesa S. Herlax, Instituto de Investigaciones Bioquimicas de La Plata, Argentina
Maria V. Mernea, University of Bucharest, Romania
Junichiro Yajima, Gakushuin University, Tokyo, Japan
Alexandra I. Moraru, University of Bucharest, Romania
Priscila V. Goliatt, National Laboratory for Scientific Computing, Petrópolis, Brazil
Shi-Qiang Wang, Peking University, Beijing, China
Jose M. Delfino, University of Buenos Aires, Argentina
Nina Pastor, Universidad Autónoma del Estado de Morelos, Cuernavaca, Mexico
Yingang Feng, Institute of Biophysics, Chinese Academy of Sciences, Beijing, China
Sascha Nicklisch, University of Cologne, Germany
Alex Perávarez-Marín, Stockholm University, Sweden
Rajaram Swaminathan, Indian Institute of Technology, Guwahati, India
Suman Nag, Tata Institute of Fundamental Research, Mumbai, India
Sanvidhan G. Suke, University College of Medical Sciences and G.T.B. Hospital, University of Delhi, India

Octavian O. Calborean, University of Bucharest, Romania
Kyrylo Tron, University of Ulm, Germany
J. Krishnan, Annamalai University, Annamalai Nagar, India
Erkan Tuncay, Ankara University, Turkey
R. Malathi, Indian Institute of Technology, Chennai, India
Hector Salazar, Instituto de Fisiologia Celular UNAM, Mexico
Rong Xia, Institute of Membrane and System Biology, Leeds, United Kingdom
Aytac A. Seymen, Ankara University, Turkey
Miki Hirabayashi, University of Tokyo, Japan
Khundrakpam Budhachandra, Singh National Brain Research Centre, Gurgaon, India
Rishi Jain, All India Institute of Medical Sciences, New Delhi, India
Rajakrishnan Vijayakrishnan, All India Institute of Medical Sciences, New Delhi, India
Merridee A. Wouters, Victor Chang Cardiac Research Institute, Sydney, Australia
Meera Singh, Indian Council of Medical Research, New Delhi, India
Vladimir Teif, Institute of Bioorganic Chemistry, Belarus National Academy of Sciences, Minsk, Belarus

Student Travel Awardees

Logan R. Chieffo, Boston University
Martijn E. van Raaij, University of Twente, Enschede, The Netherlands
Isabelle C. Dragomir, Drexel University
Ann C. Kimble-Hill, Indiana University Purdue University
Aurelia R. Honerkamp-Smith, University of Washington
Thomas E. Frederick, University of Florida
James A. Svetlovics, University of North Carolina Wilmington
Pia Guinto, Albert Einstein College of Medicine
Yi Wang, University of Illinois at Urbana-Champaign
Nathaniel Traaseth, University of Minnesota
Travis J. Gould, University of Maine
Khamir Mehta, University of Michigan
Ling Wu, University of Illinois, Chicago
Thomas Chadwick, North Carolina State University
Sarah B. Scruggs, University of Illinois, Chicago

Moritz Mickler, TU Munich, Garching, Germany
Debanjan Goswami, National Center for Biological Sciences, Bangalore, India
Khajak Berberian, Cornell University
Kyle P. Eagen, Cornell University
Srinivasan P. Venkatachalan, University of Wisconsin-Madison
Kareen L. Kreutziger, University of Washington
Qianru Yu, The Pennsylvania State University
Eric W. Frey, Miami University, Ohio
Sarah G. Kamper, Calvin College
Laura J. Porter-Peden, Calvin College
Yi Cao, University of British Columbia, Vancouver, Canada
Peter A. Sims, Harvard University
Michelle A. O'Malley, University of Delaware
Ronak N. Shah, Drexel University
Christopher P. Toseland, MRC-National Institute for Medical Research, London, United Kingdom
Paula A. Vivas, University of Illinois at Chicago
Sarah K. Higgins, University of North Carolina Wilmington
Joshua K. Au, Yale University
Brannon McCullough, Yale University
Nicholas R. Guydosh, Stanford University
Joel M. Kralj, Boston University
Thomas C. Edrington, University of Connecticut

Daniel W. Farrell, Arizona State University
James R. Thompson, University of Oxford, United Kingdom
Ashley R. Carter, JILA and University of Colorado, Boulder
Leila Shokri, Northeastern University
Hau B. Nguyen, Florida State University
Pengying Hao, Wellesley College
Irmgard Waldner-Scott, Institute of Biophysics and Nanosystems Research, Graz, Austria
Qi Wang, Cornell University
Sejin Han, University of Maryland, College Park
Suman Nag Tata, Institute of Fundamental Research, Mumbai, India
John C. Fisher, St. Jude Children's Research Hospital
Angel M. Davey, The Pennsylvania State University
Sepehr Dadsetan, University of California, Davis
Jill B. Jensen, University of Washington
Alexandra P. Few, University of Washington
Hao Chen, Purdue University

Minority Biophysicists Travel Awardees

Ann Kimble-Hill, Indiana University-Purdue University Indianapolis
Danyell Wilson, University of Florida
Johnnie Moore, Saint Louis University
Kumar Sinniah, Calvin College
Eric Johnson, University of Texas San Antonio
Joseph Sabat, Albert Einstein College of Medicine
Thomas Freeman, Tulane University
Kerrick Nevels, University of Maryland School of Pharmacy
Eric Botello, Rice University
Diego Ramallo Pardo, University of New Mexico
Jeffy Jimenez, University of South Florida
Neville Forlemu, University of North Dakota
Ryan Lang, Oakwood College
Caryn Bell, University of Maryland, Baltimore County
Christopher Arnette, Prairie View A&M University
Myriam, Diaz-Martienz, University of Puerto Rico, Rio Piedras, San Juan, Puerto Rico

Biophysical Journal

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Biophysical Journal recently began making RSS available to all readers through its website. RSS stands for Rich Site Summary, RDF Site Summary, or Really Simple Syndication and is an easy way to keep track of news and other updates from favorite websites. Instead of readers having to visit the website for updates, the site will send a message every time something new is posted. Messages from selected websites are gathered by a piece of software known as an RSS Reader, which then displays feed from all of the websites in one place.

Biophysical Journal makes every TOC for both BioFAST and the final published papers for recent and current articles available through RSS. This allows readers to stay on top of the latest developments in biophysics.

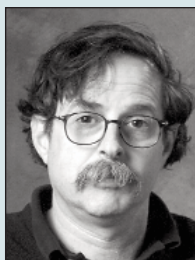
Make use of RSS by installing an RSS Reader on your computer. Visit <http://www.biophysj.org> for more information, or to download an RSS Reader.

Members in the News



David Eisenberg

David Eisenberg, of the University of California, Los Angeles and Biophysical Society Member since 1979, along with his graduate student *Rebecca Anne Nelson*, was awarded the 2008 Noble Laureate Signature Award for Graduate Education in Chemistry.



Arthur L. Horwich

Arthur L. Horwich, of Yale University School of Medicine and Biophysical Society member since 2001, received the 2007 Wiley Prize in Biomedical Sciences.



Michael F. Summers

Michael F. Summers, of the University of Maryland, Baltimore County and Biophysical Society member since 2000, was awarded the 2008 ASBMB Award for Exemplary Contributions to Education.

(Profile continued from page 7)

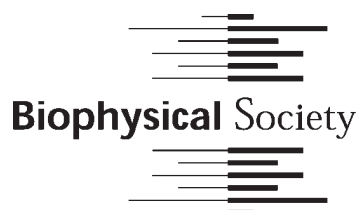
Weinstein admits that "my real hobby, other than opera and theater, is my work."

"If I care about something going well, I find a way to help lead it in the right direction," Weinstein states emphatically. David Warshaw, of the University of Vermont College of Medicine and co-chair of the 2009 Society Program Committee, says that he "had the pleasure of experiencing Harel's gift of graceful arm twisting." Warshaw notes that Weinstein's "charm and persuasiveness make him the consummate President-elect." One can sense that as President of the Biophysical Society, Weinstein will be committed to positioning the Biophysical Society for the next revolution of science.

THE GEORGE WASHINGTON UNIVERSITY

GUS WEISS PROFESSORSHIP IN THEORETICAL BIOPHYSICS

The Department of Physics of The George Washington University invites applications for the Gus Weiss Professorship in Theoretical Biophysics, beginning in Fall, 2008. Basic Qualifications: Applicants must hold a Ph.D. in Physics or a related field, have a nationally and internationally recognized and externally funded research program in theoretical and/or computational biophysics, and demonstrate strong capabilities in teaching. Preferred Qualifications: Preference will be given to an individual whose research complements our current biophysics program, which focuses on three areas: (1) protein structure and function (2) multiscale modeling of cellular control, including biological aspects of networks, signaling, and energy production, and (3) immune-system modeling and viral dynamics. The successful candidate will provide leadership and vision for the growth of our biophysics group as well as lead the effort to strengthen cross-campus interdisciplinary activities in quantitative systems biology. Application Procedure: Send a curriculum vitae, a research statement, and the names of four references to Prof. Mark E. Reeves (reevesme@gwu.edu), Chair, Search Committee, Department of Physics, GWU, Washington, DC 20052. Only complete applications will be considered; their review will begin on February 1, 2008 and will continue until the position is filled. The George Washington University is an equal-opportunity, affirmative-action employer.



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Upcoming Events

Biophysical Society

April 18-20, 2008
Chemical Biophysics Symposium
Toronto, Canada

<http://chem.utoronto.ca/symposium/biophys/2008/>

May 14-16, 2008
*Biosensors 2008 — The Tenth World Congress
on Biosensors*
Shanghai, China

<http://www.biosensors-congress.elsevier.com/index.htm>

May 18-23, 2008
*Biomolecular NMR — Gordon Research Conference on
Computational Aspects*
Ciocco, Barga, Italy

<http://www.grc.org>

June 22-26, 2008
*Bari International Symposium on Mitochondrial Physiology
and Pathology*
Athens, Greece

<http://www.mitoevents.uniba.it/>

June 25-28, 2008
Setting the Pace in Mitochondrial Medicine
Indianapolis, Indiana

<http://www.umdf.org/symposium/upcomingsymposium.aspx>

July 18-19, 2008
*3DSig: Structural Bioinformatics and
Computational Biophysics*
Toronto, Canada

<http://www.ebi.ac.uk/~rafi/3DSig08/>

July 19-24, 2008
The European Bioenergetics Conference 2008 (EBEC 2008)
Dublin, Ireland

<http://www.tcd.ie/Biochemistry/ebec2008/>

Summer 2008
Gordon Research Conferences
See website for list and dates

<http://www.grc.org/>