



BIOLOGICAL CHEMISTRY DIVISION AMERICAN CHEMICAL SOCIETY

NEWSLETTER

<http://biochemdivision.org/>

Secretary: J. P. Richard

February, 2006

Message from the Chair Richard Armstrong

As we enter 2006 the members of the Division of Biological Chemistry have much to be thankful for and a lot to be anxious about. Let me review the good news first. The Division is very robust with respect to membership, finances and programmatic activities. Financially, we are in very good shape, a fact that has allowed us to support travel grants for 25 students and postdocs to the fall national meeting. In addition, we have contributed resources to an unprecedented number of meetings, including regional ACS meetings, Gordon Research Conferences and other specific meetings. Also, Vernon Anderson has arranged a special symposium to honor Ernie Rose at the 100th anniversary meeting of the ASBMB in San Francisco this April. I hope you will attend.

The award winners for 2006 (**Repligen Award, Vern Schramm; Pfizer Award, James Berger; and Lilly Award, Linda Hsieh-Wilson**) are a truly impressive group of scientists. I encourage all of you to nominate candidates for the 2007 awards.

The last year also posed significant challenges for our profession both in industrial and academic settings. Those of you participating in basic research have probably noticed that it is much more difficult to obtain funds to support it regardless of whether you work in a company, government laboratory or university. Although the total federal support of R&D will increase 1.7 % in 2006 (to \$134.8 billion), virtually none of that increase is in the areas of biological or life sciences. NIH will experience its first budget decrease in 36 years! This is a significant problem that needs to be addressed by the Division through making the case that science drives the innovations necessary for making a better future for everyone.

Like all science, biological chemistry is an international endeavor. I am sorry to report that NSF has significantly reduced the funding for the US National Committees that interface with the international community through the NAS in the biological sciences. I anticipate that, at least in the short term, the Division will need to step up and provide some financial support for the activities that facilitate interactions between the ACS and ASBMB and the International Union for Biochemistry and Molecular Biology.

As a member of the ACS I remain very concerned about the issue of open access for ACS journals. Although the ACS has taken some small steps to increase access to recently published articles it has not yet addressed the issue of its back-files (articles published before 1996). I would encourage you to express your opinion on this issue with ACS governance.

Finally, on behalf of all the members I extend thanks to the people who do the real work for the Division. Vernon Anderson has done a great job as Program Chair, a responsibility that is not trivial. Peter Tipton completes his term as treasurer. His stewardship of the finances was very efficient and greatly appreciated. John Richard begins his second term as Secretary, which, I can assure you, is a good thing. John has been relentless in assuring that communications and the organization of the Division are in top shape. He is responsible for the new website that is being developed for the Division. Please take a look. I think you will be impressed.

Updated Website for the Division of Biological Chemistry

The Division's Website is in the process of being updated at the following new URL:

<http://biochemdivision.org/>

The sitemap provides a brief summary of the information that will be available at this website.

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The website was designed by Uli Iserloh of ISERLOH DESIGN, and will be under construction during the winter. Please send your suggestions for website content to John Richard (jrichard@chem.buffalo.edu).

Meetings of the Division of Biological Chemistry at National Meetings of the American Chemical Society.

231st National Meeting, March 26 - 30, 2006 – Atlanta, Georgia.

The Division of Biological Chemistry organizes formal programs only for the fall National Meeting. However, many members of our Division are also active in The Divisions of Carbohydrate Chemistry, Medicinal Chemistry, Computational Chemistry and Organic Chemistry, and they will find much to interest them in the programs presented by these divisions. The division is co-sponsoring the following award symposia.

2006 Frank H. Field and Joe L. Franklin Award honoring Richard M. Caprioli. [Cosponsored with the Division of Analytical Chemistry]. *Advances and Applications in Mass Spectrometry*

2006 Alfred Bader Award honoring F. Ann Walker. [Cosponsored with the Division of Inorganic Chemistry]. *Hemes and Heme Proteins*

232th National Meeting, September 10 - September 14, 2006 – San Francisco, California.

The program for the division is being organized by the program chair, Karen N. Allen, Boston University School of Medicine (allen@med-xtal.bu.edu). The Program will be composed of invited talks and contributed poster presentations. The call for papers will appear in C&E News February 20, 2006. Instructions for the submission of abstracts are given on page 7 of this Newsletter.

The Division's program will feature the following symposia to highlight the work of our members.

Award Symposia

Repligen Award honoring Vern Schramm: *Enzymatic Catalysis and Transition States.*

Pfizer Award honoring James Berger: *Structure and Function of Macromolecular Assemblies*

Lilly Award honoring Linda Hsieh-Wilson: *Chemical Approaches to Neuroscience and Other Complex Systems.*

2005 Alfred Bader Award honoring Alan Fersht: *Protein Folding, Unfolding, and Misfolding*

Francis P. Garvan - John M. Olin Medal honoring Lila M. Gierasch: *Protein Folding and Aggregation: From the Test Tube to the Cell*

Other Symposia

Uncovering the Metabolome and Metabolic Defects. (organized by Dean Tolan)

Enzyme Mechanisms. (organized by Karen Allen)

Chemical Biology. (organized by Debra Dunaway-Mariano)

Poster Presentations. Posters will be presented at several sessions during the week of the ACS meeting. The division encourages submission of abstracts for posters. Contributions on topics related to the themes of the organized symposia are particularly encouraged. Instructions for the submission of poster abstracts are given on page 7 of this Newsletter

Travel Awards. The Division offers travel awards for member graduate students and postdoctoral fellows to attend the 232nd ACS National Meeting from September 10 –14, 2006. The level of support is \$600 along with a complimentary registration. Detailed information about these awards is given on page 7 of this Newsletter.

100th Anniversary Meeting of the American Society of Biochemists and Molecular Biologists, April 1-5, 2006, in San Francisco, CA.

Symposium Honoring Irwin A. Rose, 2004 Nobel Laureate in Chemistry. This symposium, scheduled April 4, will feature several talks on ATP-dependent protein degradation mediated by ubiquitin and on the mechanism of enzyme action. These talks will recognize Ernie Rose's pioneering work, particularly his determination that ubiquitin is essential for ATP-dependent proteolysis [*J. Biol. Chem.* **1980**, 255, 7525, 7529], and of the role of this small polypeptide in protein degradation. This work was honored by the 2004 Nobel prize in Chemistry to Ernie Rose, Aaron Ciechanover and Avram Hershko.

Ernie Rose is regarded with respect and affection by his friends and colleagues. The following colleagues and coworkers of Ernie Rose have agreed to give talks at this symposium.

Art Haas (*Medical College of Wisconsin*)

Keith Wilkinson (*Emory University, School of Medicine*)

Cecile M. Pickart (*Johns Hopkins University*)

Al Mildvan (*Johns Hopkins University*)

Judith Klinman (*UC Berkeley*)

FUTURE NATIONAL MEETINGS

234th National Meeting, August 19-23, 2007 - Boston MA. Tadhg Begley at the Department of Chemistry, Cornell University will serve as the Chair of the Program Committee for this meeting (tpb2@cornell.edu)

236th National Meeting, August 17-21, 2007 - Boston MA. James Stivers at the Department of Pharmacology and Molecular Sciences, Johns Hopkins School of Medicine will serve as the Chair of the Program Committee for this meeting (jstivers@jhmi.edu)

Regional ACS Meetings.

Regional meetings of the American Chemical Society provide young chemists, particularly graduate students and postdoctoral fellows, the opportunity to make professional contacts and hone their presentation skills in a relatively low-key atmosphere. The Division of Biological Chemistry encourages its members to participate in the following regional meetings.

38th Central Regional Meeting
[<http://www.crm-2006.org/>]
May 16 - 20, 2006. Frankenmuth Michigan

37th Great Lakes Regional Meeting
[<http://alchemy.chem.uwm.edu/GLRM06/>]
May 31 – June 2, 2006. Milwaukee, Wisconsin.

38th Middle Atlantic Regional Meeting
[<http://www.marm2006.org/>]
June 4-7, 2006. Hershey Pennsylvania.

61st Northwest Regional Meeting
[<http://www.chem.unr.edu/norm06/>]
June 25–28, 2006/ Reno, NV

35th Northeast Regional Meeting
[<http://www.nerm2006.org/>]
October 5–7, Binghamton, NY

19th Rocky Mountain Regional Meeting
[<http://www.rmacs2006.arizona.edu/>]
October 14–18, 2006. Tucson, AZ

41ST Midwest Regional Meeting
[<http://membership.acs.org/m/mwrm2006/>]
October 25–27, 2006. Quincy, IL

61st Southwest Regional Meeting
October 19–22, 2006. Houston, TX

58th Southeast Regional Meeting
November 1–4, 2006. Augusta, GA

Support for Meetings

The Division awards grants of up to \$1500 to support the expenses of symposia at ACS Regional meetings and of up to \$2000 to support larger meetings such as Gordon Research Conferences. Members interested in organizing a symposium at a Regional Meeting should send the date and site of the relevant meeting, and an outline for the proposed symposium program to:

John P. Richard
Department of Chemistry
University at Buffalo, SUNY
Buffalo, NY 14260
jrichard@chem.buffalo.edu

Members charged with the organization of larger conferences should submit requests for funding to John Richard, along with a brief statement of how this Conference will serve the interests of the members of our Division.

Requests will be considered at meetings of the Division's Executive Committee that are normally held during the National Meetings of the American Chemical Society. They should be received at least one month prior to the ACS National meeting to guarantee their review by the Executive Committee.

The division provided support for the following symposia and meetings held in 2005:

Gordon Conference on Bioorganic Chemistry, June, 2005. Andover, New Hampshire.

Gordon Conferences on Enzymes, Coenzymes and Metabolic Pathways, July, 2005, Biddeford Maine.

25th Midwest Enzyme Chemistry Conference, October, 2005, Chicago, Illinois.

Southeast & Southwest Regional Meeting, November, 2005, Memphis, Tennessee: *Bioactive Lipids*.

Pacificchem 2005. December 2005, Honolulu, Hawaii: *Bioorganic Reaction Mechanisms*.

CALL FOR NOMINATIONS

Division of Biological Chemistry Awards for 2007

Nominations are requested for the year 2007 Eli Lilly Award in Biological Chemistry, the Pfizer Award in Enzyme Chemistry, and the Repligen Corporation Award in Chemistry of Biological Processes.

Eli Lilly Award in Biological Chemistry:

Nominees shall have accomplished outstanding research in biological chemistry of unusual merit and independence of thought and originality. The nominee shall not have passed the 38th birthday by April 30, 2007, and shall be actively engaged in the line of research for which the award is made. This prize cannot be made to a person who received another award sponsored by Eli Lilly and Company for the same technical accomplishment.

Recent recipients: James Rothman (1986), Jacqueline Barton (1987), Peter Walter (1988), Michael Cox (1989), George McLendon (1990), Peter Schultz (1991), William DeGrado (1992), Stuart Schreiber (1993), Peter Kim (1994), Jeremy Berg (1995), Gregory Verdine (1996), Alanna Schepartz (1997), John Kuriyan (1998), Chaitan Khosla (1999), Xiaodong Wang (2000), Jennifer Doudna (2001), Kevan Shokat (2002), Andreas Matouschek (2003), Benjamin Cravatt (2004), Dewey G. McCafferty (2005) and Linda Hsieh-Wilson (2006).

Pfizer Award in Enzyme Chemistry:

Nominees shall have accomplished outstanding work in enzyme chemistry where the presence of enzyme action is unequivocally demonstrated. The nominee shall be engaged in noncommercial work and shall not have passed the 40th birthday by April 30, 2007. This prize cannot be made to a person who received another award sponsored by Pfizer, Inc. for the same technical accomplishment.

Recent recipients: JoAnne Stubbe (1986), Gregory Petsko (1987), John Kozarich (1988), Kenneth Johnson (1989), James Wells (1990), Ronald Vale (1991), Carl Pabo (1992), Michael Gelb (1993), Donald Hilvert (1994), Gerald Joyce (1995), Andrew Karplus (1996), Daniel Herschlag (1997), Ronald Raines (1998), David Christianson (1999), Eric Kool (2000), Ruma Banerjee (2001), Karin Musier-Forsyth (2002), Dorothy Kern (2003), Wilfred van der Donk (2004), Nicole S. Sampson (2005) and James Berger (2006).

Repligen Corporation Award in Chemistry of Biological Processes: Nominees shall have made outstanding contributions to the understanding of the chemistry of biological processes with particular emphasis on structure, function and mechanism. There are no restrictions on age or membership affiliation for the Repligen Award.

Recipients: Gregorio Weber (1986), Thomas C. Bruice (1987), Robert Abeles (1988), Stephen Benkovic (1989), Harold Scheraga (1990), William Parson (1991), Frank Westheimer (1992), Jeremy Knowles (1993), Judith Klinman (1994), Wallace W. Cleland (1995), William P. Jencks (1996), James A. Spudich (1997), David Eisenberg (1998), Christopher Walsh (1999), Perry Frey (2000), Rowena Matthews (2001), Dale Poulter (2002), John Gerlt (2003), JoAnne Stubbe (2004), David E. Cane (2005) and Vern Schramm (2006).

Submission of Nominations: A nominator should send the curriculum vitae of the candidate with a list of publications and a letter explaining the special achievements of the candidate. Additional letters of support for the specific candidate are desirable. Information about the nominating process is also posted at:

<http://biochemdivision.org/>

The Deadline for Receipt of Nomination Materials is June 1, 2006 - All materials should be sent to:

John P. Richard
Department of Chemistry
University at Buffalo, SUNY
Buffalo, NY 14260
jrichard@chem.buffalo.edu

Election Results

New Officers for the Division of Biological Chemistry.

Our Division serves many important functions, the most important of which are related to promoting the work of its members. This requires a significant commitment of time and effort from our officers. The Division offers its thanks to each of its members who generously made themselves available for office in the 2005 elections, and congratulations to the following newly elected officers:

Secretary (2006 – 2008)
John P. Richard

Treasurer (2006 – 2008)
Eugene Mueller

Program Committee for (2006 –2009, Chair 2008)
James T. Stivers

Executive Committee (2006 - 2008)
Sheila S. David
Lila M. Gierasch

Councilors (2006 - 2008)
Christine S. Chow
Gary D. Glick

Alternate Councilors (2006 - 2008)
Squire J. Booker
Paul J. Hergenrother

Nominating Committee (2006 - 2008):
Eric D. Brown

Nominations of Officers. The Nominating Committee (below) encourages nominations of candidates for the following offices for 2006.

Eric D. Brown (ebrown@mcmaster.ca)
Philip A. Cole (pcole@jhmi.edu)
Peter Tonge (ptonge@notes.cc.sunysb.edu)

President (2 year term).
Program Committee Member (4 year term)
Nominating Committee Member (3 year term)
Executive Committee (Two for 3 year terms)

Program Committee. The Program Chair Karen Allen, in consultation with the Program Committee (below) prepares the Divisional program for scientific meetings. The committee encourages suggestions for symposia for National and Regional ACS meetings.

Karen Allen (Chair) (allen@med-xtal.bu.edu)
Tadhg Begley (tpb2@cornell.edu)
James T. Stivers (jstivers@jhmi.edu)
Vernon Anderson (vea@cwru.edu)

Report from the ACS National Meeting, Washington, DC, August 28 – Sept 1, 2005

The Division's Program at the Philadelphia ACS Meeting was organized by Vernon Anderson from The Department of Biochemistry at Case Western Reserve University. The quality of the talks was uniformly superb and a high level of attendance was maintained through the last section on "Frontiers in Biosynthesis" The featured symposia covered the following topics.

"Function, Structure, Dynamics of Membrane-Associated Molecules" Pfizer Award symposium for Nicole Sampson.

"Adventures in Protein Chemistry" Lilly Award symposium for D. G. McCafferty.

"Frontiers in Biosynthesis: Assigning Biochemical Function in the Age of Genomics and Proteomics" Repligen Award Symposium for David Cane.

"Mechanisms of RNA Catalysis" Organizer, M. Harris.

"Studying the Metabolome" Organizer, J. V. Sweedler.

"Mass Spectrometric Analysis of Protein Interface" Organizer, V. L. Woods Jr

"Antibiotics: Resistance and New Approaches" Organizer, D. Pei

"Computational Approaches to Enzyme Mechanisms" Organizer, N. G. J. Richards

In addition to the scheduled talks, 255 posters were presented by students and postdocs. The

number of evening sessions was increased from two to three in order to accommodate this record number of posters.

Vernon Anderson deserves our thanks for organizing this outstanding program. The planning for the program for 200g meeting in San Francisco is well advanced thanks to the efforts of the Program Chair, Karen Allen.

Travel Awards for 2005

The Division of Biological Chemistry promotes the work of our young talent through the award of Travel Grants. The following is a list of the recipients of Travel Grants to attend the 2005 ACS meeting in Washington.

Matthew A. Anderson (*Advisor*, Garland Marshall, Washington University)

Elham Behshad (*Advisor*, Perry Frey, University of Wisconsin)

Eric Christian (*Advisor*, Michael Harris, Case Western Reserve University).

Shawn Desai (*Advisor*, Justin Gallivan, Emory University).

Truc Diep (*Advisor*, Tom Tullius, Boston University)

Silvia Forcat (*Advisor*, Rudolf Allemann, Cardiff University)

SuzAnn Marie Hertzler (*Advisor*, John Caradonna, Boston University)

Alvin Holder (*Advisor*, Debbie Crans, Colorado State University)

Tang Hui (*Advisor*, Nicole Sampson, SUNY at Stony Brook)

Nirmala Krishnamurthy (*Advisor*, Sheila David, University of Utah)

Tao Liu (*Advisor*, Felicia Etzkorn, Virginia Tech University)

Deborah Stoner Ma (*Advisor*, Peter Tonge, SUNY Stony Brook)

Maria Magalhaes (*Advisor*, John Blanchard Einstein College of Medicine)

Allison Olszewski (*Advisor*, Gregory Weiss UC Irvine)

June Pais (*Advisor*, Carol Fierke, University of Michigan)

Qingfeng Pan (*Advisor*, Anthony Serianni, Notre Dame University)

Sheldon Park (*Advisor*, Jeffery Saven, Pennsylvania University)

Richard James Payne (*Advisor*, Chris Abell, Cambridge)

Erin Prestwich (*Advisor*, Shana Kelley, Boston College)

Mark Ruszczycky (*Advisor*, Vernon Anderson, Case Western Reserve University)

Duncan Edward Scott (*Advisor*, Chris Abell, Cambridge)

Olen Stephens (*Advisor*, Alana Schepartz, Yale University)

Charles Tetzlaff (*Advisor*, David Cane, Brown University)

Lawrence Thompson (*Advisor*, Richard Armstrong, Vanderbilt University)

Meng-yin Yang (Janet Morrow, SUNY Buffalo)

The Division strongly encourages applications for 2006 travel awards (see below).

232th National Meeting, September 10 - September 14, 2006 – San Francisco, California.

Professor Karen Allen (allen@med-xtal.bu.edu) is the Program Chair. The call for papers will appear in C&E News February 20, 2006 and on the web at (<http://www.acs.org/>).

Abstracts for invited talks and poster presentations should be submitted online to (<http://oasys.acs.org/>) This records the abstract in the automated OASYS system that is used to organize this meeting. Abstracts for the Washington meeting can be submitted starting in February 20 and ending on May 5, 2006. Author instructions, including procedures for incorporating graphics or equations in the abstract, can be accessed at this same website.

THE DEADLINE FOR SUBMISSION OF YOUR ABSTRACT TO THE ACS WEBSITE IS MAY 5, 2006

Travel Awards to Attend the ACS 230th National Meeting

The Division will offer 25 travel awards on a competitive basis for graduate students and postdoctoral fellows to attend the meeting and present a poster on their research. The selected travel awardees will be reimbursed up to \$600 for expenses and will receive a complimentary registration to the conference. Receipts must be submitted along with a request for reimbursement after the meeting. No more than two awards will be made to one laboratory.

The deadline for submission of an application for a travel award is May 12, 2006.

To apply for a Travel Award

- (1) Fill in the Travel Award Application on the next page
- (2) Attach a printed copy of your abstract.
- (3) Attach a one page CV.
- (4) Attach a signed letter of recommendation from your faculty advisor.
- (5) Send **ONE COMPLETE PDF FILE** of this material as *single* EMAIL attachment to the Program Chair at:

allen@med-xtal.bu.edu

Be sure to use a subject line of "ACS Travel Awards" for your electronic application.

Application for a Travel Award for Graduate Students and Postdoctoral Fellows

Name: _____ Advisor: _____

Department _____ Graduate Student: _____ Postdoctoral Fellow: _____

Institution: _____ Street: _____

City, State, Zip: _____

Tel: _____ E-mail: _____

Is an Abstract attached? _____ Is a CV attached? _____ Is a recommendation letter attached? _____