

THE NUCLEUS

November 2009

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Monthly Meeting

Norris Award Meeting at Boston University

Awarded to William F. Polik, Hope College

The Avery Ashdown Exam and the Chemistry Olympiad

By Mindy Levine

Education Night Awards

May 14, 2009

Summary of Governance Actions/Reports

238th ACS National Meeting, Washington, DC





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Office: Marilou Cashman, 23 Cottage St., Natick, MA 01360. 1-800-872-2054 (Voice or FAX) or 508-653-6329.

e-mail: mcash0953(at)aol.com

Any Section business may be conducted via the business office above.

NESACS Homepage:

http://www.NESACS.org

David Cunningham, Webmaster

ACS Hotline, Washington, D.C.:

1-800-227-5558

Officers 2009

Chair:

Dr. E. Joseph Billo

13 Shattuck Street

Natick, MA 01760

508-653-3074, joseph.billo(at)verizon.net

Chair-Elect:

John McKew

Wyeth Research

200 Cambridge Park Drive

Cambridge, MA 02140

Immediate Past Chair:

Marietta Schwartz

Chemistry Department, UMass-Boston

Boston, MA 02125

617-287-6146; marietta.schwartz(at)umb.edu

Secretary:

Michael Singer

Sigma-Aldrich

3 Strathmore Rd., Natick, MA 01360

508-651-8151X291; msinger(at)sial.com

Treasurer:

James Piper

19 Mill Rd., Harvard, MA 01451

978-456-3155, piper28(at)attglobal.net

Auditor:

Anthony Rosner

Archivist:

Myron S. Simon

20 Somerset Rd.

Newton, MA 02465; 617-332-5273

Romysimon(at)mindspring.com

Trustees:

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Cover: The 2009 James Flack Norris Awardee: William F. Polik, Edward and

Elizabeth Hofma Professor of Chemistry, Hope College, Holland, MI

(Photo courtesy of Professor Polik).

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Editor:

Michael P. Filosa, Ph.D., ZINK Imaging, Inc., 16 Crosby Drive, Building 4G, Bedford, MA 01730 Email: Michael.filosa(at)zink.com; Tel: 508-843-9070

Associate Editors:

Myron S. Simon, 20 Somerset Rd., W. Newton, MA 02465, Tel: 617-332-5273, Sheila E Rodman, Konarka Technologies, Inc., 116 John St. Suite 12, Lowell, MA 01852 Email: srodman(at)konarka.com tel 978-569-1414, Mindy Levine, 516-697-9688 (c), 617-258-6536(w), mindy.levine(at)gmail.com

Assistant Editors:

Stefan G. Koenig, Sonia Taktak

Board of Publications:

David Cunningham (Chair), Mary Mahaney, Vivian K. Walworth

Business Manager:

Karen Piper, 19 Mill Rd., Harvard, MA 01451, Tel: 978-456-8622

Advertising Manager:

Vincent J. Gale, P.O. Box 1150, Marshfield, MA 02050, Email: Manager-vincegale@mboservices.net; Tel: 781-837-0424

Contributing Editors:

Morton Hoffman, Feature Editor; Dennis Sardella, Book Reviews

Calendar Coordinator:

Sheila Rodman, email: srodman(at)konarka.com

Photographers:

Morton Z. Hoffman and James Phillips

Proofreaders:

Donald O. Rickter, Vivian K. Walworth, Mindy Levine

Webmaster:

David Cunningham, webmaster(at)nesacs.org

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The Avery Ashdown Exam and the Chemistry Olympiad

By Mindy Levine

When Danny Chiao, a current high school senior at Acton-Boxborough Regional High School, was confused about the theory and practice of NMR this past summer, he knew exactly where to turn. "I went to Dr. Kotz's room, and he gave me an impromptu four-hour lecture," Danny said. "It was like a one-on-one tutorial from a great chemist." Danny, together with 19 other high school students, participated in a two-week intensive chemistry study camp at the United States Air Force Academy (USAFA) that afforded him instant access to chemistry mentors like Dr. Kotz.

Chemistry study camp

For two weeks this summer, the 20 participants in study camp woke up at 7 AM to study chemistry. Each morn-

ing, the students listened to four hours of lectures on various chemistry topics. Some of the mentors, like Dr. Ron Furstenu, used interactive demonstrations to enrich their lectures. For example, as part of his lecture on collision theory, Dr. Furstenu asked two students to pretend to be colliding particles. During another lecture, he burned rocket fuel to demonstrate aspects of chemical kinetics.

Afternoons at chemistry study camp were devoted to laboratory experiments. The students were expected to complete three experiments during the five-hour session. By evening, Danny said, "We were all pretty exhausted."

Despite the intensity of the camp, the students seemed to enjoy themselves. "Everyone who is eligible to come back next year will return,"

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Danny predicted. Even though the students competed against each other, Danny said, "it was still a collaborative atmosphere. I definitely plan to stay in touch with everyone."

Qualifying for the study camp

In order to be eligible for the study camp, the students had to successfully complete multiple qualifying exams. First, the students took a chemistry exam given by their local ACS section. In the Northeastern Section, this exam is called the "Avery Ashdown exam." Students who perform well on this test then take the National Chemistry Olympiad test. Then, the top 20 scorers on the National Chemistry Olympiad are invited to the USAFA for the two week study camp.

Avery Ashdown exam

This exam is named in memory of Professor Avery Ashdown, who was a professor of chemistry at MIT for many years. The Ashdown exam was first

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Monthly Meeting

The 900th Meeting of the Northeastern Section of the American Chemical Society

Presentation of the James Flack Norris Award for Outstanding Achievement in Teaching Chemistry to Professor William F. Polik of Hope College

Thursday, November 12, 2009

Boston University School of Management (Rafik B. Hariri Building)

Executive Dining Room (4th Floor)

595 Commonwealth Avenue, Boston, MA 02215

5:30 pm Social Hour

6:30 pm Dinner

7:45 pm Award Meeting, Joseph Billo, NESACS Chair, Presiding

Presentation of the Arno Heyn Book Prize

David Cunningham, Chair, Board of Publications, NESACS

Reflections on James Flack Norris

Myron S. Simon, Archivist, NESACS

Introduction of the Norris Award Winner

Michael D. Seymour, Professor of Chemistry, Hope College

Presentation of the Norris Award

Morton Z. Hoffman, Chair, Norris Award Committee, NESACS

Norris Award Address

Professor William F. Polik, Edward and Elizabeth Hofma Professor of Chemistry, Hope College, Holland, MI

The New ACS Guidelines: A Stimulus Package for Educating Chemistry Students in the 21st Century

Dinner reservations should be made no later than noon, Thursday, November 5, 2009. Please call or fax Marilou Cashman at (800) 872-2054 or e-mail at MCash0953(at)aoil.com. Reservations not cancelled at least 24 hours in advance must be paid. Members, \$30.00; Non-members, \$35; Retirees, \$20; Students, \$10.

THE PUBLIC IS INVITED.

Directions to Boston University School of Management Building:

<http://management.bu.edu/careers/contact/directions.html>

Local Directions: After taking Kenmore exit off Storrow Drive, turn right at first set of traffic lights onto Beacon Street. At this point, the road forks; the right fork is Bay State Road. Take left fork, which leads into Kenmore Square. In the Square, bear right onto Commonwealth Avenue. The Boston University School of Management is located at 595 Commonwealth Avenue, directly across from the Metcalf Science Building.

Biography

Dr. William F. Polik graduated from Dartmouth College in 1982 and received his Ph.D. in physical chemistry from UC Berkeley in 1988. He then joined the faculty at Hope College, where he is the Edward and Elizabeth Hofma Professor of Chemistry. He has received numerous research and teaching awards, including a NSF Presidential Young Investigator award and a Camille and Henry Dreyfus Foundation Fellowship. He was named a AAAS Fellow and received the Hope College Provost's Award for Teaching Excellence. Dr. Polik has involved over 60 students in his spectroscopy and computational research program at Hope College and has 25 undergraduate student co-authors on publications. He has been very active in curriculum development and co-developed the WebMO web-based interface for computational chemistry, which is in use at over 1,200 academic and research institutions worldwide. Dr. Polik has served on the ACS DivCHED physical chemistry examination development committee, chaired the Beckman Scholar Program Executive Committee, and most recently served as chair of the ACS Committee on Professional Training during the development of the new ACS Guidelines for Undergraduate Chemistry Programs. ◇

students in the best possible way. The new ACS Guidelines for Undergraduate Chemistry Programs can serve as a vehicle for leading departmental change. Beyond specifying minimum infrastructure, faculty, and curricular requirements, the new guidelines offer increased flexibility to promote innovation, support development of student skills necessary to be successful in professional life, and expect regular departmental self-evaluation for the purpose of continual improvement. Creative and hard working chemistry educators can use these new guidelines to improve learning by their students and enhance the professional success of their graduates. ◇

Abstract

Dramatic changes are occurring in the chemistry profession, in chemistry education, and in chemistry students. Chemistry is more multi-disciplinary and addresses increasingly complex problems. Educators are demonstrat-

ing new pedagogical approaches that enhance student learning. Students are more diverse in their ethnic and educational backgrounds, and they are demanding an education that is engaging and pertinent. Surrounded by these changes, many chemistry departments are considering what actions to take in order to remain relevant and serve their

Preliminary Meeting Announcement

ECRICE and DidSci 2010

The 10th European Conference on Research In Chemistry Education (ECRICE) and the 4th International Conference Research in Didactics of the Sciences (DidSci) will be held on July 4-9, 2010, at the Pedagogical University of Kraków, Poland <<http://ecrice2010.ap.krakow.pl/>>. All academicians, doctoral students, science teachers, and researchers are invited to partake of the events.

As part of a long tradition, ECRICE is organized under the auspices of the Division of Chemical Education of the European Association for Chemical and Molecular Sciences (EuCheMS), formerly FECS (Federation of European Chemical Societies and Professional Institutions). Previous meetings were held in Istanbul (2008), Budapest (2006), Ljubljana (2004), and Aveiro (2001). These conferences provide an opportunity for participants to exchange experiences on research in chemical education (ECRICE), and research and practice in natural science education (DidSci) at every education level - from primary school up to graduate studies.

The aim of the conferences is to familiarize the scientific education community with the most recent achievements from various scientific centers. The program will feature a wide variety of plenary, invited, and contributed lectures, as well as poster sessions. Abstracts of oral and poster contributions will be peer reviewed. The language of ECRICE will be English; the language of DidSci will be English, Polish, Czech, and Slovak.

There will also be an opportunity for participants to explore Kraków, which is famous for its cultural heritage and friendly atmosphere. ECRICE and DidSci will be held just after the 3rd World Conference on Science and Technology Education in Tartu, Esto-

NESACS Honored



NESACS was honored at the ACS National meeting in Washington, DC, in August for its participation in the U. S. National Chemistry Olympiad (USNCO) since its very beginning 25 years ago. During the Anniversary ACS Presidential reception, Steve Lantos, the Chair of the High School Education Committee, accepted the certificate of appreciation on behalf of NESACS from ACS President, Thomas Lane (photo courtesy of Marietta Schwartz).

The first year that USNCO trained students for the International Chemistry Olympiad was 1984. The Northeastern Section has participated every year. Steve took over as USNCO Coordinator from Dorothy Bagley in 1997. ◇

nia, June 28-July 2, 2010 <<http://icase2010.org/>>.

The organizing committee of the 10th ECRICE and 4th DidSci cordially invites you to attend and participate in these meaningful conferences. We look forward to seeing you in Kraków.

Prof. Jan Rajmund Pasko, Chair of the Organizing Committee
Dr. Iwona Maciejowska, Secretary of the Organizing Committee ◇

Announcement

9th Sukant Tripathy Annual Memorial Symposium

December 4, 2009

8:15 a.m. - 4:30 p.m.

University of Massachusetts Lowell, MIL Conference Room

Wannalancit Mills, 600 Suffolk St., Lowell, MA 01854

The University of Massachusetts Lowell will hold an anniversary symposium to honor the memory of the late Prof. Sukant Tripathy, renowned researcher and former Director of the Center for Advanced Materials, University Provost and Vice Chancellor. This annual event brings together researchers and colleagues from universities and industries, former and present students and associates of the Center to discuss the latest research activities in materials science.

Directions at www.uml.edu/maps/directions

Program includes talks by invited speakers and poster presentations.

Tentative Speakers:

Thomas Seery, University of Connecticut

Valtecir Zucolotto, University Sao Paulo, San Carlos, Brazil

Xiaogong Wang, Tsinghua University, Beijing, China

Young-Gi Kim, Crosslink, Inc., Springfield, MO

Speaker TBA, Genzyme Corporation, MA

Russell Gaudiana, Konarka Technologies

Registration

Pre-registration is required by November 20, 2009 to Michele_Vercellin@uml.edu.

Lunch and refreshments will be provided.

Details and Changes

All updates about this symposium will be posted on the website www.uml.edu/tripathysymposium/ or you may contact Michele_Vercellin@uml.edu or 978-934-3695. ◇

Education Night Awards

Presented at Northeastern University, Boston, Massachusetts, May 14, 2009

HIGH SCHOOL AWARDS

FIFTY-FIRST ANNUAL AVERY A. ASHDOWN HIGH SCHOOL EXAMINATION CONTEST

Student	School	Teacher
First Place - The Simmons College Award		
Ryan M. McKinnon	Phillips Academy	Yuko Hori
Second Place (tie)		
Danny Chiao	Acton-Boxborough HS	David Baumritter
Patrick McDaniel	Hollis Brookline HS	Gina Bergskaug
Third Place		
Jae Eui Shin	Phillips Academy	Yuko Hori
Fourth Place		
Allison B. Wu	Acton-Boxborough HS	David Baumritter
Honorable Mention - First Year		
Sung Won Cho	Groton School	Tim Reed
Jaeyoon Lee	Lexington HS	Jeff Shorter
Justin Reynolds	Lexington HS	Parul Kumar
Ronald Lai	Newton South HS	Alan Crosby
Hyun Seung Lee	Newton South HS	Alan Crosby
Jennifer Hsu	Lexington HS	Janice Compton
Mika Braginsky	Newton South HS	Alan Crosby
David I. Trauffer	Attleboro HS	Catherine Botsford-Milne
Nihaal Mehta	Lexington HS	Jeff Shorter
Honorable Mention - Second Year		
Ryan Heden	Hollis Brookline HS	Gina Bergskaug
Nick Wolchko	Pinkerton Academy	John Breda
Robert W. Morgan	Masconomet HS	Carol Lund
Alexander Werne	Hollis Brookline HS	Gina Bergskaug
Carolyn M. Cohen	Acton-Boxborough HS.	David Baumritter
Conan Huang	Andover HS	Betty Ann Ianuccilli
James Rosenthal	Masconomet HS	Carol Lund
Matthew S. Dai	Acton-Boxborough HS	David Baumritter

AULA LAUDIS SOCIETY

Laura Rotondo	Concord-Carlisle Regional HS
James Fabiano	Newmarket (NH) Jr.-Sr. HS
David Hamer	Old Rochester Regional HS
Janice Compton	Lexington HS

PROJECT SEED

Stonehill College

Mentors: Dr. Cheryl Schnitzer, Dr. Marilena Hall

Joel Anifowose	Brockton HS
Basem Sadaka	North Quincy HS
Hao Trieu	Randolph HS
Mei Yi Wang	Brockton HS

(l-r) John McKew (NESACS Chair-elect),
John Wozney (Wyeth Research-Speaker at
Education Night),
Joseph Billo (NESACS Chair)
(photo by Morton Z. Hoffman)

COLLEGE AND UNIVERSITY AWARDS

2009 UNDERGRADUATE RESEARCH SCHOLARS JAMES FLACK NORRIS

AND

THEODORE WILLIAM RICHARDS SCHOLARS

University of Massachusetts Dartmouth

John Sirois Dr. Donald Boerth, Advisor
Nucleophilic Displacement Reactions in Hindered Allylic Systems

Keene State College

Elizabeth A. Neuhardt Dr. Colin D. Abernethy, Advisor
*The Synthesis and Characterization of New N-Heterocyclic Germylene
Complexes of the Early Transition Metals*

Brown University / Harvard University

Danielle Raad Prof. Theodore Betley, Advisor
<Research topic is pending>

University of New Hampshire

Rita Ciambra Prof. Ekaterina Pietneva, Advisor
*Redox reactivity, ligand substitution, and conformational changes in a
Geobacter heme protein GSU0935*

NESACS UNDERGRADUATE GRANTS-IN-AID

Stonehill College

Natalie Dogal Dr. Louis J. Liotta, Advisor
*3-(hydroxymethyl) hexahydro-1H-pyrrolizine-1,2,6,7-tetraol synthesis
from D-glucose*

Framingham State College

Daniel Abbott Prof. Catherine F. Dignam, Advisor
*Design and Synthesis of New Chiral Diketimine Complexes for Asym-
metric Catalysis*

University of Massachusetts Lowell

Henry B. Kells Dr. Daniel J. Sandman, Advisor
*Polymerization of Ethynylpyridines with Electrophilic Carbohydrate
Reagents*

DR. PHYLLIS A. BRAUNER MEMORIAL BOOK AWARD

Wheaton College

Samuel Beal Prof. Matthew Evans, Advisor
*Chemical weathering in the hydrological system of the Greenland Ice
Shelf*



SUMMARY OF GOVERNANCE ACTIONS/REPORTS

AMERICAN CHEMICAL SOCIETY 238th ACS NATIONAL MEETING WASHINGTON, DC AUGUST 16-20, 2009

The following summary is provided to help Councilors report to their local sections and divisions on key actions and discussions of the ACS Council and Board of Directors at the 2009 fall national meeting.

ACTIONS OF THE COUNCIL

Election Results

- The Committee on Nominations and Elections presented to the Council a slate of candidates for membership on the Committee on Committees. The Council elected G. Bryan Balazs, Dawn A. Brooks, Les W. McQuire, Ingrid Montes, and Frankie K. Wood-Black for the 2010-2012 term.
- The Committee on Nominations and Elections presented to the Council a slate of candidates for membership on the Council Policy Committee. The Council elected M. Elizabeth Derrick, Thomas R. Gilbert, Willem R. Leenstra, and Carolyn Ribes for the 2010-2012 term.
- The Council Policy Committee presented to the Council a slate of candidates for membership on the Committee on Nominations and Elections. The Council elected Dwight W. Chasar, Milagros Delgado, Kevin J. Edgar, Sharon P. Shoemaker, and Ellen B. Stechel for the 2010-2012 term.

Candidates for President-Elect and Board of Directors

The candidates for the fall 2009 ACS national election were announced as follows:

President-Elect 2010

1. Nancy B. Jackson, International Chemical Threat Reduction

Department Manager, Sandia National Laboratories, Albuquerque, NM

2. Cheryl A. Martin, Currently on sabbatical; former Corporate Vice President and General Manager, Rohm and Haas Company, Philadelphia, PA
3. Mary Virginia Orna, Professor of Chemistry, College of New Rochelle, New Rochelle, NY

Directors-at-Large 2010-2012

1. Dennis Chamot, Associate Executive Director, Division of Engineering and Physical Sciences, National Research Council, Washington, DC
2. H. N. Cheng, Research Chemist, US Department of Agriculture, New Orleans, LA
3. Ray A. Dickie, Retired, Ford Motor Company, Efland, NC
4. Valerie J. Kuck, Retired, Lucent Technologies, Montclair, NJ
5. Howard M. Peters, Retired, Peters, Verny, LLP, Palo Alto, CA

Director, District I 2010-2012

1. D. Richard Cobb, Senior Research Associate, Eastman Kodak Company, Rochester, NY
2. Neil D. Jespersen, Professor of Chemistry, St. Johns University, Jamaica, NY

Director, District V 2010-2012

1. Judith L. Benham, Retired, 3M Company, St. Paul, MN
2. Peter K. Dorhout, Vice Provost, Colorado State University, Fort Collins, CO

Petitions

- The Council received two amendments to the ACS Constitution and

Bylaws for action: The Petition on Candidate Selection by Member Petition (to be considered for Urgent Action) and the Petition on Election Timelines and Procedures 2009.

- The Petition on Candidate Selection by Member Petition proposes to permit candidates to be selected by a petition process from members. To be considered for urgent action, the petition required a $\frac{3}{4}$ affirmative vote. After considerable discussion, a vote to consider the petition at the 2009 fall meeting FAILED. Absent urgent action, the Petition on Candidate Selection by Member Petition will now be up for action at the 2010 spring meeting of the Council.
 - Next, the Council discussed in great detail the Petition on Election Timelines and Procedures 2009. This petition proposes to shorten certain election timelines and change petition candidates (who go straight on the ballot if they obtain enough signatures) to petition nominees (who need to be screened by Council along with other nominees chosen by the Committee on Nominations and Elections). After rejecting a request to have a recorded vote, the Council VOTED to recommit the petition to the Committee on Nominations and Elections with instructions. Following this action, N&E sought input through a nonbinding survey to help guide their revisions. A revised petition will likely be up for action at the 2010 spring Council meeting.
- The Council received one petition

Governance Actions

Continued from page 8

for consideration: the Petition on Admissions Committee. This petition removes the Admissions Committee from the Bylaws and transfers its functions to the Council Committee on Membership Affairs. Action is expected on the petition at the 2010 spring meeting.

Committee Review

- As part of a regular performance review, the Council VOTED to continue the Committees on Chemical Safety, Minority Affairs, Chemical Abstracts Service, Technician Affairs, and Analytical Reagents. Continuing the first three committees requires Board of Directors concurrence.

Registration Report and 2010 National Meeting Registration Fee

- As of August 19, 2009, the ACS fall national meeting had attracted 14,319 registrants. This was the largest Washington meeting in history. Totals in select categories are as follows: Regular attendees 8,575;

Students 3,159; Guests 462; Exhibit Only 676; and Exhibitors 1,447. In keeping with the objective of the National Meeting Long Range Financial Plan, previously approved by the Board of Directors and Council, the Meetings and Expositions Committee recommended to the Board an increase of \$10 for the 2010 national meeting registration fee. The Board will act on this recommendation shortly.

Membership Activity

- The provisions of the Petition on Membership Categories and Requirements were fully implemented this past June with the transfer of former Student Affiliates to Student Member status, and Associate Members to regular Member status. As of July 31, the Society had 9,732 Student Members – 6,500 of them former Student Affiliates and more than 3,000 of them new Student Members.

Dissolution of the Division of Chemical Technicians

- At the 2009 spring Council meeting, the Divisional Activities Committee

(DAC) reported that it had voted to accept a recommendation from the Division of Chemical Technicians (TECH) that the division disband and to recommend this action to Council in the fall. On recommendation of DAC, as recommended by TECH, the Council VOTED to disband the Division of Chemical Technicians effective December 31, 2009. DAC agreed that TECH has accomplished its mission of enhancing the status of technicians in the ACS, and now they are integrated into the other technical divisions.

Changes to Charter Bylaws for New Local Sections and International Chemical Sciences Chapters and Bylaws for Divisions in Probationary Status

- The Council VOTED to accept changes to charter bylaws for new local sections and international chemical sciences chapters, and bylaws for divisions in probationary status. These changes, which were developed in cooperation with the Committees on Divisional Activities, Local Section Activities, and Inter-

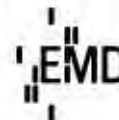
Continued on page 10

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Governance Actions

Continued from page 9

national Activities, are a result of changes to the Constitution and Bylaws made as a result of the Petition on Membership Categories and Requirements, which became effective on June 30.

ACTIONS OF THE BOARD OF DIRECTORS

Board Committees and Task Force Actions

- The Board of Directors VOTED to approve nominees for the 2010 Perkin Medal and the Alan T. Waterman Award. The Perkin Medal, awarded by the American section of the Society of Chemical Industry to a scientist residing in the US, recognizes innovation in applied chemistry resulting in outstanding commercial development. The Alan T. Waterman Award, presented by the National Science Foundation, recognizes an outstanding young researcher in any field of science or engineering.
- The Committee on Public Affairs and Public Relations announced the

designation of “Dip-and-read Tests for Blood and Urine Glucose” (work of Al and Helen Free) as a National Historic Chemical Landmark. The committee also reported on its approval of a new healthcare policy statement, received from the Committee on Economic and Professional Affairs.

- The Board VOTED to approve an action recommended by the Committee on Professional & Member Relations to accept with minor revisions the key terms contained in a draft Memorandum of Understanding (MOU) between ACS and the Royal Society of Chemistry. The MOU a) offers an opportunity for the ACS and RSC to develop and distribute a “primer,” both in hard-copy and electronic format, to provide the wider population with a basic understanding of the chemistry underlying issues related to sustainability; b) provides a series of joint seminars in the UK, US, and elsewhere with participation by scientists, media and decision-makers to focus on sustainability; and c) supports collaboration on activities that train scientists to

address issues relating to sustainability and other global challenges in non-technical, readily understandable communications.

- On the recommendation of the Committee on Budget and Finance, the Board VOTED to fund a new program (Science Coaches) and to reauthorize an existing program (ACS Green Chemistry Institute[®]) in the 2010 budget.
- The Board of Directors received a report from the Board–Presidential Task Force on Education. This task force is charged with 1) reviewing recommendations contained in national STEM (Science, Technology, Engineering, and Mathematics) education reports released during the past five years; 2) identifying specific actions that the Society could undertake in response to these recommendations; and 3) creating a priority list of actionable items where the Society can have a unique impact on STEM education. The new Science Coaches initiative was one of the task force’s recommendations.

The Society’s Finances

- In view of the ongoing global recession and its impact on the Society’s finances, the Board received an update on the Society’s current financial position and the projected financial performance for 2009. The Society is projected to end the year with a net contribution from operations of \$11.2 million, or \$528,000 favorable to the 2009 approved budget. The favorable projection is largely the result of Contingency Plan actions and expense management initiatives implemented in early 2009, which are expected to fully offset revenue shortfalls in the Approved Budget across several categories.

Strategic Issues

- At its retreat held earlier this year, the Board developed a “dashboard,” *i.e.*, a list of possible Key Performance Indicators (KPIs) related to ACS strategic progress. At this meeting, a Board task force presented a draft dashboard for review.

Continued on page 11

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Governance Actions

Continued from page 10

The Board agreed to continue this discussion at its December meeting.

The Executive Director/CEO Report

- The Executive Director/CEO, along with several of her direct reports, updated the Board on the activities of the Publications Division, Chemical Abstracts Service, and the Society's General Counsel (including the *Leadscope* litigation). As a part of the Publications report, the Board VOTED to approve the re-appointment of three journal editors.

Compensation of Society Executive Staff

- The Board received a report from its Committee on Executive Compensation and voted to approve several actions relative to compensation for the Society's executive staff. The compensation of the Society's executive staff receives regular review from the Board.

Other Society Issues

- The Board received a briefing from its Chair on her recent meeting with International Union of Pure and Applied Chemistry (IUPAC) leaders and plans for the International Year of Chemistry-2011 (IYOC-2011). The Board also was briefed by International leaders from the European Association for Chemical and Molecular Sciences (EuChemS), the German Chemical Society, the Korean Chemical Society, the Mexican Chemical Society, the Royal Society of Chemistry, and the Serbian Chemical Society on their strategic directions and on their plans for IYOC-2011.
- With the creation of the ACS Leadership Development System, the Society is now better positioned to create the skilled leadership needed to advance as the world's largest scientific society and to achieve its mission. In recognition of this achievement, the Board awarded plaques to its Oversight Group on Leadership Development for outstanding work on this major initiative.

ACS Senior Chemists Task Force Formed

Morton Hoffman, Professor Emeritus of Chemistry, Boston University [hoffman@bu.edu]

The Senior Chemists Task Force of 19 members with ACS Past-President Eli Pearce (Polytechnic University) as chair was created at the ACS National Meeting in Salt Lake City from the Silver Circle Working Group, which was formed several years ago to determine and evaluate how ACS can best meet the needs of the 30% of its members who are 60 years of age or older.

The Task Force met again in Washington, DC, to discuss its goals and objectives in the areas of education, financial and personal concerns, networking, and consultancy, with particular emphasis on counseling and guiding undergraduates and graduate students; working with school districts, high school chemistry clubs, and Project SEED students; organizing symposia, workshops, and social gatherings at ACS national and regional meetings (e.g., Senior Chemists Breakfast); providing expertise to ACS committees, technical divisions, and local sections, as well as outside organizations.

After three years, the ACS Committee on Committees (ConC) will evaluate the activities and programs of the Task Force toward the possibility of forming a Senior Chemists Committee, which would be analogous to the current Younger Chemists and Women Chemists Committees.

The Task Force looks forward to

- The Board received a briefing on a new program to equip ACS members to be more effective spokespersons for chemistry. It is called the Chemistry Ambassadors program, and information may be found at <www.acs.org/chemistryambassador>. ♦

Announcement

Get Involved in the ACS Celebration of IYC 2011: Support the U.S. Commemorative Stamp Campaign

The ACS is working to urge the United States Postal Service to adopt chemistry as a theme for a commemorative stamp in 2011 in view of the contributions of chemistry to the well-being of humankind in the U.S. and worldwide and on the occasion of the 2011 International Year of Chemistry.

The USPS gets 50,000 subject requests per year and awards only 25 commemorative stamps per year - Your efforts to contribute to this cause this year are very important and very much appreciated!

How to get involved:

- Visit www.acs.org/iyc2011 to download the petition
- Distribute the petition for signature among your colleagues, students, and friends (all chemists and friends of chemistry are encouraged to sign!)
- Mail or FAX completed petitions to the ACS Office of International Activities no later than November 1. (see petition for fax number and address)

To learn more about IYC 2011 and to contribute ideas to the ACS celebration of this historic event, visit www.acs.org/iyc2011 ♦

collaborating with local sections and technical divisions in organizing symposia, workshops, and networking events at national and regional meetings, and invites the submission of program and symposia ideas. Those within NESACS who are interested in participating should contact this reporter or the ACS staff liaison, Cheryl Brown <c_brown@acs.org>.

Information and resources from the Silver Circle can be found at <www.acs.org/silvercircle> or by joining the Senior Chemists Group through the ACS Network <www.acs.org/network>. ♦

Avery Ashdown Exam

Continued from page 4

administered in 1971, and it has been used as a qualifier for the National Chemistry Olympiad since 1984. This exam consists of 100 questions, which test both first- and second-year high school chemistry.

The top scorer on the Ashdown exam receives a \$500 prize from Simmons College, termed the "Simmons Prize." The next four scorers also receive cash prizes for their achievements, and the five next scorers are awarded honorable mentions. These awards are presented to the students at the May NESACS meeting. This past year, Ryan McKinnon of Phillips Academy received the Simmons Prize. Reflecting on his experience, Ryan said, "These exams helped me recognize my own potential."

United States National Chemistry Olympiad (USNCO)

Top performers in the Ashdown exam (and in other local sections' qualifying exams) then proceed to the USNCO. This exam consists of three parts:

- (1) A sixty question multiple-choice section
- (2) An eight question free-response section
- (3) A practical laboratory exam.

Steve Lantos, a chemistry teacher at Brookline High School, and chairperson of the NESACS High School Education Committee, has been involved in the Ashdown contest and the USNCO since 1989. He currently chairs the committee that writes the laboratory exam questions. This section of the exam, which was added in 1994, consists of two open-ended chemistry questions. Some examples of questions from previous years include, "Extrapolate and prove absolute zero," and "Determine how many atoms thick the zinc coating is on a galvanized washer."

The exam-writing committee receives a substantial amount of feedback (both positive and negative) about the laboratory section. The lab questions are substantially different

from "cookbook" experiments – experiments that merely force students to follow a "recipe" – that many students are familiar with from their lab class in high school. "Kids really appreciate the challenge, the fact that they are not being told how to do something," Mr. Lantos said. "This, to me, is real science."

International Chemistry Olympiad (IChO)

At the end of the two-week study camp, four students are selected to participate in the IChO. The IChO began in 1968 in Czechoslovakia, as a way for Czechoslovakia to foster contacts and collaborations with other countries. While only three countries participated initially, the IChO has since expanded significantly. The United States first participated in 1984 and celebrated its 25th anniversary of participation this year, with a gala reception at the 238th ACS meeting in Washington, DC.

Professor Seth Brown, Associate Professor of Chemistry at the University of Notre Dame, was a member of the first United States team to participate in the IChO. Professor Brown explained that his career choice was a natural outgrowth of this participation. "My experience taught me that I was pretty good at chemistry," said Professor Brown. "It taught me that there are lots of interesting people from all over the world who are interested in this subject, that there is something very rich and rewarding to participate in." Twenty five years after his participation in the IChO, Professor Brown continues to study chemistry as a faculty member at the University of Notre Dame, where he researches organic and inorganic reaction mechanisms.

Goals/future directions

"My goal every year is to increase participation in both the Ashdown exam and the USNCO," Mr. Lantos said. This goal can be accomplished in numerous ways, for example, by reaching out to local high school chemistry teachers and through advertising in publications such as *The Nucleus*. In a typical year, approximately 120 stu-

dents from our section participate in the Ashdown exam, and Mr. Lantos would like to see this number increase. The increased participation of students from under-represented high schools and regions would be particularly welcome.

"The goal of the Chemistry Olympiad is to recognize the achievements of outstanding high school chemistry students," said Dr. Brown. "We are trying to promote international awareness of chemistry and to encourage students to achieve in chemistry."

Danny said that for him, participating in the Ashdown exam and the USNCO was a rewarding experience. "I decided to study for Ashdown because I did poorly on a chemistry test and figured this would be a good way to get motivated," Danny said. "Now I plan on majoring in chemical engineering and pursuing a career in that field." ♦

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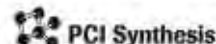
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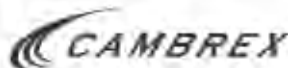


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Note also the Chemistry Department web
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These include:

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<http://www.bu.edu/chemistry/events/>
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Nov 02

Christian Degen (MIT)
Brandeis University Gerstenzang 122
3:45 pm

Nov 03

Duncan Steel (University of Michigan, Ann Arbor)
MIT, 4-231
4:00 pm

Dr. David M. Floyd (Rutgers University, New Brunswick)
"Designing Drugs with Multiple Actions: DARA, A Case Study"
Tufts Univ., Pearson, P-105
4:30 pm

Nov 05

Prof. Ali Tavassoli (University of Southampton, UK)
Genetic Selection as a Tool for Drug Discovery"
Tufts Univ., Pearson, P-105
4:30 pm

Prof. Christo Tsvetanov (Bulgarian Academy of Sciences)
"From Thermoresponsive Polymers to Hollow Nanoparticles and Their Application"
UMass Lowell, Olney Hall OH518
3:30 pm

Nov 06

Ken Ohmori (Tokyo Institute of Technology)
"Total Syntheses of the Angular-type Polycyclic Natural Products based on the Stereochemical Relay Strategy"
Harvard, Pfizer Lecture Hall
4:00 pm

Nov 09

Jon Clardy (Harvard University)
Brandeis University Gerstenzang 122
3:45 pm

Nov 10

Christian J. Kastrup (MIT: Koch Institute for Cancer Research)
"Understanding and Controlling Blood Coagulation Using Chemistry and Microfluidics"
U. New Hampshire, Room L103
11:10 am

Prof. Francis Johnson (Stony Brook University)
"Aristolochic Acid Nephropathy (AAN) - A Deadly Environmental Disease: Origins, Etiology and Chemistry"
Tufts Univ., Pearson, P-105
4:30 pm

Nov 12

Dr. Etsuko Fujita (Brookhaven National Laboratory)
"Photochemical CO₂ Reduction: Current Status and Future Prospects"
U. New Hampshire, Room L103
11:10 am

Marion Muskiewicz (U. Mass Lowell)
"Library Resources for Chemical Science"
UMass Lowell, Olney Hall OH518
3:30 pm

Nov 16

Bristol-Myers Squibb Lecture in Organic Synthesis
Chuo Chen (University of Texas Southwest Medical Center)
Harvard, Pfizer Lecture Hall
4:00 pm

Nov 17

Prof. Heather Maynard (UCLA)
"From Protein-Polymer Conjugates to Protein Nanoarrays"
Tufts Univ., Pearson, P-105
4:30 pm

Prof. Milton R. Smith, III (Michigan State Univ.)
Boston College, Merkert 130
4:00 pm

Dr. Colin Abernathy (Keene State University)
U. New Hampshire, Room L103
11:10 am

Nov 17 and Nov 18

Inorganic Chemistry AD Little Lecture:
Prof. Dr. David Milstein (The Weizman Institute of Science)
MIT, 4-270
4:00 pm

Nov 19

Tyson Miller (University of Connecticut)
U. New Hampshire, Room L103
11:10 am

Christopher Walsh, (Harvard Medical School)
MIT, 6-120
4:00 pm

Nov 22

Prof. Kenneth J. Wynne (Virginia Commonwealth Univ.)
"Functional Polymer Surfaces or "Serendipitous Discoveries of New Soft Surface Phenomena and Implications for Useful Coatings"
UMass Lowell, Olney Hall OH518
3:30 pm

Nov 24

Steve Bradforth (University of Southern California)
"Unraveling small molecule reactivity in water"
MIT, 4-231
4:00 pm

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