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NESACS

# THE NUCLEUS

*November 2010* *Vol. LXXXIX, No. 3*

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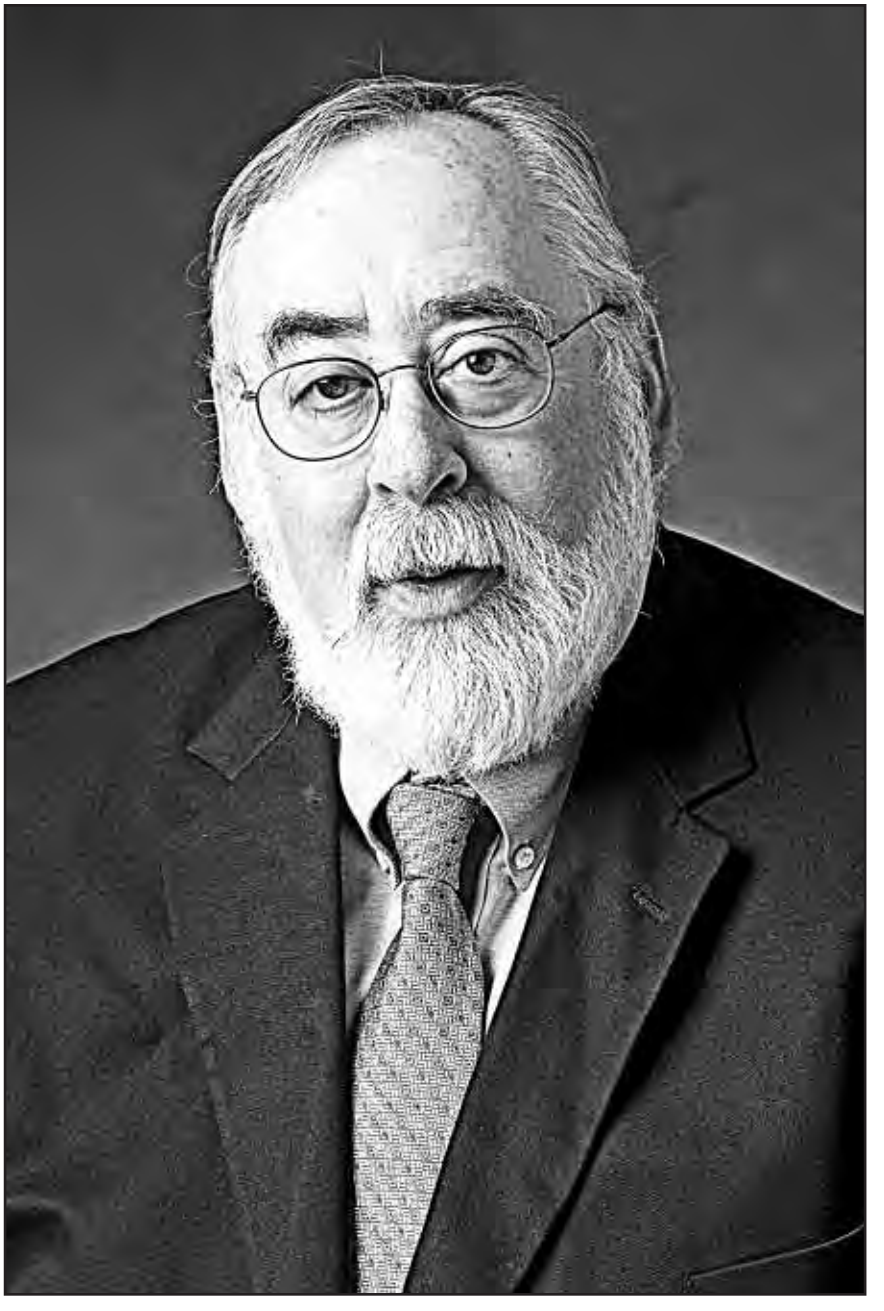

**The Northeastern Section of the American Chemical Society, Inc.**

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**Cover:** *2010 James Flack Norris Award winner for outstanding achievement in teaching chemistry, Professor George M. Bodner, Purdue University (Photo courtesy of Dr. Bodner)*

**Deadlines:** *February 2011 Issue: December 9, 2010*
*March 2011 Issue: January 13, 2011*

THE NUCLEUS

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# Wellesley College

By Mindy Levine

On a typical summer morning in 2010, two undergraduate students are working in Professor Wilton Virgo's laboratory. Sarah Hyde, a senior chemistry major, at Wellesley College really wanted to "play with lasers," which is how she decided to study chemical dynamics using experimental laser techniques in the Virgo group. Nicole Spiegelman, a sophomore student, enjoyed taking a chemistry course with Professor Julia Miwa of Wellesley College and was inspired to do research because of the Introduction to Chemistry course that she took with Professor Virgo. They, together with 23 other chemistry majors, conduct cutting-edge chemistry research under the supervision of faculty supervisors.

The level of research performed by undergraduate students at Wellesley is remarkably advanced, according to Professor Virgo, as they conduct research that would typically be performed by graduate students at Ph.D. granting institutions. This opportunity for undergraduates is one key factor that distinguishes primarily undergraduate institutions (PUIs) from other research universities.

Faculty members at PUIs generally also have a higher teaching load than their colleagues at research universities, although Professor Virgo currently teaches only one course in the fall (Introductory Chemistry) and one in the spring (Physical Chemistry II).

Wellesley chemistry students have the opportunity not only to do research, but to become involved in a variety of chemistry-related activities. They attend weekly seminars during the academic year, as well as during the summer, and they can interact with the visiting speakers. The department also promotes travel to regional and national ACS meetings, and departmental poster sessions "get us prepared for that kind of environment," according to Ms. Hyde. The students who conduct research can write senior theses based on their work, and are then eligible for departmental honors. For example, Madeline Elkins, an alumna of the Virgo group, received the Eleanor Webster prize in chemistry for her honors thesis. Ms. Elkins is currently a doctoral student at the University of California Berkeley, where she works for Professor Daniel Neumark.

As an all-women's college, Wellesley is in a unique position to encourage women to pursue scientific careers. In fact, the homepage for the Wellesley College Science Center says, "Preparing Women for Leadership in the Sciences," claiming that "support for the Sciences and science majors at Wellesley is unsurpassed."

Faculty members at Wellesley College are highly active in competing for grants and fellowships. There are several fellowships that are designed specifically for researchers at PUIs, such as the Research Corporation for Science Advancement's Cottrell College Science Award, that was recently

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# Monthly Meeting

***The 909th 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 George M. Bodner, Purdue University**

**Thursday, November 11, 2010**

**Tufts University,** 51 Winthrop Street, Medford, MA

**5:30 pm** Social Hour

**6:30 pm** Dinner

**7:45 pm** Award Meeting, John McKew, NESACS Chair Presiding

*Presentation of the Arno Heyn Book Prize to Donald O. Rickter*
Vivian Walworth, Chair, Board of Publications, NESACS

*Reflections on James Flack Norris*
Myron S. Simon, Archivist, NESACS

*Introduction of the Norris Award Winner*
Marcy Towns, Associate Professor of Chemistry, Purdue University

*Presentation of the Norris Award*
Mary Jane Shultz, Chair, Norris Award Committee, NESACS

*Norris Award Address*
George M. Bodner, Arthur E. Kelly Distinguished Professor of Chemistry, Education and Engineering, Department of Chemistry, Purdue University, West Lafayette, IN 47907

*I'm Finally Beginning to Understand Why I Didn't Understand ...*

Dinner reservations should be made no later than noon, Thursday, November 4, 2010. Please call or fax Anna Singer at (781) 272-1966 or e-mail secretary@nesacs.org. Reservations not cancelled at least 24 hours in advance must be paid. Members, $30; Non-members, $35; Retirees, $20; Students, $10.

THE PUBLIC IS INVITED.

**Directions to Tufts University, 51 Winthrop St:**
**http://campusmaps.tufts.edu/medford/**

**From points southwest, west, and northwest:** Follow Route 128 (also called I-95), and proceed to its intersection with Route 2. Proceed east on Route 2 to the junction of Routes 2 and 16. Turn left onto Route 16 east (Alewife Brook Parkway). Follow Route 16 through two full traffic lights. Take the next right, a sharp turn, onto Powder House Boulevard. Take your first left onto North street, seventh right onto Boston Ave. Parking garage is on your right at 419 Boston Ave. Four blocks back is Winthrop Street. 51 Winthrop Street is near the corner of Boston Ave and Winthrop St. Turn left onto Winthrop St., 51 is on your left.

**From Boston, points south, and the South Shore:** Follow the Southeast Expressway (Route 3 north) to I-93 north to Exit 31 (Mystic Valley Parkway/Medford Square). Follow the exit ramp to Medford Square. At the blinker at the end of the ramp, turn left onto Main Street. *Follow Main Street straight for approximately 3/10 of a mile. Turn right onto George Street, then left onto College Avenue. Proceed through the intersection with Boston Avenue (just over the railroad bridge). Follow directions to Parking Garage at 419 Boston Ave as described in the preceding paragraph.

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# Abstract

Chemistry is unique; it is the only field of science in which the approach to learning that leads to success in the introductory course does not work in the second-year course on organic chemistry, and where the approach that students successfully use for the second-year course is almost totally inappropriate for the course they encounter as juniors. This evening's talk will focus on the results of research on the teaching and learning of organic chemistry that explain some of the reasons why students struggle with organic chemistry, at both the undergraduate and graduate levels. ◇

# Biography

George M. Bodner was born and raised within a half-mile of Kodak Park in Rochester, New York. In spite of this, he entered the State University of New York at Buffalo as a history/philosophy major. At SUNY he found, much to his amazement, that chemistry was fun, and he changed his major under the mistaken impression that jobs were easier to find as a chemist.

After a mediocre career as an undergraduate (B.S., 1969) he entered graduate school at Indiana University (Ph.D., 1972), undoubtedly on the basis of letters of recommendation from individuals with whom he had done undergraduate research. He apparently did well enough in graduate school as a double major in inorganic and organic chemistry to gain an appointment as a visiting assistant professor at the University of Illinois (1972-75), where he taught general chemistry and a biochemistry course for undergraduate and graduate students. His research interests at that time focused on the application of $^{13}C$ NMR spectroscopy to studies of the structure and bonding in organometallic complexes.

Two things became apparent during his tenure at Illinois. He found that teaching was fun, and he realized that his research could best be described as searching for definitive answers to

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# Rickter to Receive 2010 Heyn Book Award

Donald O. Rickter has been selected to receive the 2010 Arno Heyn Book Prize. This prize was created in 2005 to honor the late Arno Heyn. Previous winners of the award have been Mark Spitler and Sam Kounaves (2005), Vincent Gale (2006), Vivian Walworth (2007), Myron Simon (2008) and Arthur Obermayer (2009).

Don Rickter has been active in the NESACS since 1974. He was a research chemist and information manager at Polaroid in Cambridge for 31 years. Since 1985 he has served as Alternate Councilor or Councilor most years. He was chair of the Board of Publications in 1985 when Adrienne Dey was the editor of the *Nucleus*. He was the coordinator of seminar listings after Cathy Costello and before Sheila Rodman. During Arno Heyn's editorship (1989-2004) Don began his specialty as a proofreader.

In addition to our awardee, our section has been fortunate in having many skilled, conscientious people who have created the best newsletter among the local sections of the ACS. Vincent Gale, Mark Spitler, Sam Kounaves, Mukund Chorghade, Myke Simon, Vivian Walworth, and Mike Filosa are just a few of the talented people. Arthur Obermayer made the historic step of starting the NESACS website on 16 September 1996. It was one of the first local section websites in the ACS.

Many people are needed to put together *The Nucleus*. New volunteers to maintain and improve it will be welcomed.

Don says it has been an honor — and fun— to collaborate with outstanding people in chemical publications.

The Heyn Book Prize will be awarded at the November monthly meeting to be held at Tufts University. ◇

# Announcement

***IUPAC Prizes for Young Chemists***

The Prizes have been established by IUPAC (International Union of Pure and Applied Chemistry) to encourage outstanding young research scientists at the beginning of their careers. Five prizes will be awarded in 2011 for the most outstanding Ph.D. theses in the general area of the chemical sciences, as described in a 1,000-word essay. Each prize will consist of $1,000 cash and travel expenses to the next IUPAC Congress, which will be held in San Juan, Puerto Rico, July 30-August 7, 2011. In keeping with IUPAC's status as a global organization, efforts will be made to assure fair geographic distribution of prizes.

**Procedures for the 2011 Prize:**

a. Entrants must have received their Ph.D. (or equivalent) degree, or completed all Ph.D. requirements, including successful defense of the doctoral thesis, during 2010.

b. The research described in the entrant's thesis must be in the field of the chemical sciences, defined as "chemistry and those disciplines and technologies that make significant use of chemistry."

c. The IUPAC Prize recognizes only work that was performed while the entrant was a graduate student.

d. Application requires submission of a completed entry form, together with the supplementary material, by e-mail whenever feasible.

e. An essay must be submitted by the entrant that describes his or her thesis work and places it in perspective relative to current research in the chemical sciences. The essay must be written in English by the entrant and may not exceed 1,000 words.

f. Two supporting letters (sent by e-mail if feasible) are required from the thesis adviser and/or chairman of the thesis committee and one additional faculty member. These letters should comment on the qualifications and accomplishments of the applicant and the significance of the thesis work.

g. Complete applications must be received at the IUPAC Secretariat <secretariat@iupac.org> by **February 1, 2011**. Early submission is strongly encouraged so that any questions may be resolved before the deadline date.

For more information, see <http://www.iupac.org/web/nt/2010-05-19_young_chemist#awards>. ◇

# Symposium

## 10th Annual Sukant Tripathy Memorial Symposium

The University of Massachusetts Lowell will hold its 10th anniversary symposium on December 3, 2010, 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, as well as former and present students and associates of the Center for Advanced Materials to discuss latest research activities in materials science.

**December 2, 2010, 4:00 – 6:30 p.m.**

University of MA Lowell Inn & Conference Center
**Sukant K. Tripathy 10th Anniversary Legacy Dinner**
In support of the Tripathy Endowed Professorship for Renewable Energy

For additional information, please contact Prof. Jayant Kumar, Center for Advanced Materials, University of MA Lowell, 978-934-3695.

**December 3, 2010**

8:15 a.m. - 4:30 p.m.
University of Massachusetts Lowell
Lowell, MA 01854

Directions at www.uml.edu/maps/directions
Program includes talks by invited speakers and poster presentations.

**Speakers**

Thomas Russell, University of MA, Amherst, MA

Zhenan Bao, Stanford University, Stanford, CA

Paula Hammond, MIT, Cambridge, MA

Gary Wnek, Case Western Reserve Univ., Cleveland, OH

Yang Yang, University of CA, Los Angeles, CA

David Gracias, Johns Hopkins University, Baltimore, MD

Robert Miller, Genzyme Corporation, Waltham, MA

Russell Gaudiana, Konarka Technologies, Lowell, MA

Registration

Pre-registration is required by November 22, 2010 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. ◇

# Green Chemistry in the Pharmaceutical Industry

### A Workshop for Graduate and Undergraduate Students

**Saturday, November 6, 2010**

Northeastern University
115 Hurtig Hall
360 Huntington Avenue, Boston, MA

**Program**

- Learn green chemistry principles and application in the lab
- Assess environmental impact of the product lifecycle – from R&D, to manufacturing, to end-use recycling and disposal
- Collaborate in small groups to identify solutions to a real-life situation faced by chemists & engineers

**Morning**

8:30 Continental breakfast

9:00 Welcome – Dr. Michael Pollastri, Northeastern University

9:15 Green chemistry principles and process chemistry overview – Dr. Martin Pettersson and Javier Magano, Pfizer

10:00 Green Chemistry in Discovery – Dr. Michael Pollastri, Northeastern University

10:30 Break

10:45 Pregabalin (Lyrica) case study, work in groups – Javier Magano, Pfizer

12:00 Lunch provided

**Afternoon**

12:30 Pregabalin case study, report back by subgroups

1:30 Enzymatic process routes – Javier Magano, Pfizer

2:00 Green chemistry tools and resources – Dr. Shengquan Duan, Pfizer

2:30 Q&A and Closing Remarks

**Participation is limited, so please sign up by October 22, 2010**

To register, send a short e-mail describing why you would like to participate in the workshop and how it would benefit your education and career aspirations.

Email: Professor Michael Pollastri — m.pollastri@neu.edu
Telephone: 617.373.2703 ◇

# Report from the Boston ACS Meeting

***Connections to Germany and Europe: Education and Research Opportunities***

Morton Z. Hoffman, Boston University

A half-day symposium on Sunday afternoon, August 22, within the program of the Division of Chemical Education (CHED), celebrated the tenth anniversary of the student exchange program between the Younger Chemists Committee (NSYCC) of the Northeastern Section (NESACS) and the *Jungchemikerforum* (JCF) of the *Gesellschaft Deutscher Chemiker* (German Chemical Society-GDCh). It was cosponsored by the ACS President, NESACS, GDCh, Society Committee on Education (SOCED), ACS International Activities Committee, CHED International Activities Committee, Younger Chemists Committee (YCC), Women Chemists Committee (WCC), and Senior Chemists Task Force (SCTF). Welcoming remarks were made by Claudia Schütt (Acting Consul General of Germany in Boston), Joseph Francisco (ACS President), Michael Dröscher (GDCh President), and Patrick Gordon (NESACS Chair-Elect).

Jörg Saborowski, a holder of a doctoral degree in chemical education from the University of Cologne and a teacher of chemistry and physics at Gesamtschule Rodenkirchen, Cologne, described the German educational system, which is much more complex than are the systems of other countries. It consists of different school types in both the *Sekundarstufe* I and II (ages 10-15 and 16-18), which differ in their levels of standards for graduation; furthermore, each of the 16 federal states of Germany has its own specific requirements. As a result, the German system has wide-ranging effects on the syllabi for the students in general, and on chemical education and chemistry teacher preparation in particular. He provided insights into how chemistry is taught in high schools in Germany.



Three members of the German delegation, who are Ph.D. candidates in chemistry, were on the program to speak about the education and research opportunities at their respective institutions and provide a brief description of their thesis work. Nina Schützenmeister (Georg-August University, Göttingen) spoke about the research in the Institute of Organic and Biomolecular Chemistry, and her work on the total synthesis of biologically active natural products as well as novel molecular materials using domino and multiple Pd-catalyzed reactions. Kevin Stella (University of Duisburg-Essen) described his research with pulsed atomic and molecular beams on the catalytic active surfaces of semiconductor heterosystems in the framework of nanoscience, which is one of the main research areas at the university. Although Shanshan Wang (Max-Planck-Institut für Kohlenforschung, Mülheim), a citizen of China, did not receive a visa from the U.S. Consulate in Frankfurt to attend the ACS meeting, her presentation on catalysis as a key technology for a sustainable development was shown, which focused on research towards renewable energy, energy storage, and the synthesis of porous polymers as a new generation of catalyst supports.

The next segment of the symposium looked at the funding opportunities for study and research in Germany. Miriam Hippchen (German Academic Exchange Service-DAAD), who is a member of the North America section in Bonn, described the programs that support the exchange of students, young scientists, and scholars between Germany and the rest of the world, particularly the RISE (Research Internships in Science and Engineering) programs that are aimed to foster North American students' interest in and knowledge of research in Germany. Lourdes Echegoyen (ACS), Global Education and Exchanges Manager in

# ACS Meeting Report

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the Office of International Activities, who directs the iREU (International Research Experiences for Undergraduates), provided an overview of this exchange program, whereby U.S. students receive NSF-funded scholarships to conduct summer research at academic and research institutes in Germany. Markus Behnke and Georg Bechtold (German Science Foundation-DFG), members of the chemistry and polymer science section in Bonn, offered information about research training in Germany. an introduction to German and EU funding schemes in the field of chemistry, and insight into DFG's funding strategies. Deirdre Kelly (American Friends of the Alexander von Humboldt Foundation), who is Senior Program Director in Washington, DC, looked at research funding opportunities in Germany for postdoctoral and experienced researchers that are available through the Foundation.

The final segment of the symposium was devoted to the NESACS-GDCh exchange program, the connection between NSYCC and JCF, and prospects for the creation of new programs in the future. Christian Küchenthal (Justus-Liebig University, Giessen), who is the current JCF chair, described the local, national, and international projects of the more than 7,000 young chemists in over 50 groups across Germany, including lecture programs, the annual *Frühjahrssymposium* that attracts more than 400 participants, and activities in conjunction with the European Young Chemists Network (EYCN) of the European Association for Chemical and Molecular Sciences (EuCheMS). Raeanne Napoleon (Boston University), the current chair of NSYCC, described the history of the NESACS-GDCh exchange program and her participation in the *Frühjahrssymposium* in Essen (2009) and Göttingen (2010). Jens Breffke (Pennsylvania State University) related his experience in the exchange to the ACS meeting in Boston in 2007 as JCF chair, which led directly to his enrolling as a graduate student in chemistry at Penn State, his appointment as a consultant to the national ACS YCC, and his involvement in U.S.-wide international exchange programs. Sergej Toews (University of Paderborn) is the current chair of EYCN, which has more than 20,000 members from 19 European nations, from Portugal to Russia, and is dedicated to increasing interaction among young chemists in European industry, academia, and professional institutions. EYCN seeks to develop ties with ACS local sections toward the development of new exchange programs.

Funding for the symposium and the exchange was provided by NESACS, GDCh, CHED, innovative programming grants from the ACS Divisional Activities and Local Section Activities Committees, and the generosity of industrial supporters: Strem Chemicals, Waters Corporation, Merrimack Consultants, Anasazi Instruments, CreaGen Biosciences, Alfa Aesar (a Johnson Matthey Company), and Interchim. Special thanks go to the Consulate of Germany in Boston for the elegant reception it hosted at the Goethe-Institut in honor of the participants of the 2010 exchange. ◇

**Photos by M.Z. Hoffman**

Joseph Francisco (ACS President)

Lourdes Echegoyen (ACS)

Markus Behnke (DFG)

Nina Schützenmeister (Georg-August University, Göttingen)

Raeanne Napoleon (Boston University)

Jens Breffke (Pennsylvania State University)

# SUMMARY OF ACS GOVERNANCE

## 240th ACS National Meeting, Boston MA, August 22-26, 2010

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 2010 Fall National Meeting.

### *ACTIONS OF THE COUNCIL*

**Election Results**

- The Committee on Nominations and Elections presented to the Council the following slate of candidates for membership on the **Committee on Committees** beginning in 2011: Janet L. Bryant, H. N. Cheng, Alan W. Elzerman, Amber S. Hinkle, Roland F. Hirsch, Ann H. Hunt, V. Michael Mautino, Roger A. Parker, Yorke E. Rhodes, and Steven W. Yates. By electronic ballot, the Council elected Janet L. Bryant, H. N. Cheng, Amber S. Hinkle, V. Michael Mautino, and Yorke E. Rhodes for the 2011-2013 term.
- The Committee on Nominations and Elections presented to the Council the following slate of candidates for membership on the **Council Policy Committee** beginning in 2011: John E. Adams, Lawrence Barton, Alan B. Cooper, Alan M. Ehrlich, Mary Virginia Orna, Sally B. Peters, Dorothy J. Phillips, and Donivan R. Porterfield. By electronic ballot, the Council elected John E. Adams, Alan M. Ehrlich, Mary Virginia Orna, and Dorothy J. Phillips for the 2011-2013 term.
- The Council Policy Committee presented to the Council the following slate of candidates for membership on the **Committee on Nominations and Elections** beginning in 2011**:** Jeannette E. Brown, Martha L. Casey, D. Richard Cobb, Lissa Dulany, John W. Finley, Martin L. Gorbaty, Melanie J. Lesko, David J. Lohse, Herbert B. Silber, and Angela K. Wilson. By electronic ballot, the Council elected Jeannette E. Brown, Martha L. Casey, D. Richard Cobb, Lissa Dulany, and Angela K. Wilson for the 2011-2013 term.

**Candidates for President-Elect and Board of Directors**

- The candidates for the fall 2010 ACS national election were announced as follows:

**President-Elect 2011**

Luis A. Echegoyen, Professor, University of Texas at El Paso, El Paso, TX

Bassam Z. Shakhashiri, Professor, University of Wisconsin, Madison, WI

**Directors-at-Large - 2011-2013**

Janan M. Hayes, (Retired) Professor Emeritus, Merced College, Sacramento, CA

Robert L. Lichter, Principal and Co-Founder, Merrimack Consultants, LLC, Barrington, MA

Kathleen M. Schulz, President, Business Results Inc., Albuquerque, NM

Kent J. Voorhees, Professor, Colorado School of Mines, Golden, CO

**Director, District II - 2011-2013**

George M. Bodner, Professor, Purdue University, West Lafayette, IN

Joseph R. Peterson (Retired) Professor Emeritus, University of Tennessee, and (Retired) Oak Ridge National Lab, Knoxville, TN

**Director, District IV - 2011-2013**

Larry K. Krannich, Professor Emeritus, University of Alabama at Birmingham, Birmingham, AL

Will E. Lynch, Professor, Armstrong Atlantic State University, Savannah, GA

**Petitions**

(For Action)

- The Council received one amendment to the ACS Constitution and Bylaws for action: The Petition on Recorded Votes. The Council VOTED to approve the Petition on Recorded Votes. This petition pro-

# ACS Governance

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vides for additional voting methods, e.g., electronic clickers that have been recently used at Council meetings, when conducting recorded votes. The Board of Directors will vote within 90 days on whether to ratify the approved petition.

(Withdrawn)

- The Council was advised that two petitions that would have been up for action at this meeting were withdrawn: The Petition on President-Elect Eligibility and the Petition on International Chemical Sciences Chapters. The Petition on President-Elect Eligibility requires that nominees or candidates for President-Elect come from an academic background every other election, and that only those from non-academic backgrounds would be eligible in the alternate years. The International Chemical Sciences Chapters petition provides for travel funds for either the Chair or Chair-Elect of International Chemical Sciences Chapters to attend governance meetings at twice the amount allotted for a Councilor.

**Committee Review**

- As part of a regular performance review, the Council VOTED to continue the Committee on Science. Continuation of the Committee on Science also requires Board of Directors concurrence.

**Meeting Registration Report**

- As of August 24, 2010, the ACS fall national meeting had attracted 14,059 registrants. Totals in select categories are as follows: Regular attendees 8,211; Students 3,230; Guests 393; Exhibit Only 733; and Exhibitors 1,492.

**Membership Activity**

- The 2010 membership numbers are on track to meet year-end goals. The Student Member community has continued to grow since creation of this new member category in June 2009. The number of Student Members was 12,815 as of July 31, 2010.

**Special Discussion Item**

- A special discussion item was put on the Council agenda for this meeting. ACS President Joseph Francisco invited the Council Policy Committee Vice Chair to present a proposal to move Council meetings from Wednesdays to Tuesdays. The proposal included survey results from Councilors and other stakeholders followed by a robust discussion on the pros and cons of a move. Councilors concluded their discussion with a straw poll that showed 128 are supportive of the proposed move of Council to Tuesdays, 225 oppose the move, and 56 are undecided. The Council Policy Committee and the Board of Directors will decide by spring 2011 whether the Council should move from Wednesday to Tuesday.

**Local Section Changes in Territories and Dissolution**

- The Council VOTED to change the territory of the Northeast Oklahoma Local Section to include all members residing in the North Central Oklahoma Local Section territory. The North Central Oklahoma Local Section will be dissolving on December 31, 2010 because its membership has fallen below the minimum requirement. This change in local section territory allows all members residing in the North Central Oklahoma territory to remain assigned to a local section.
- The Council also VOTED to change the territory of the Binghamton Local Section to include the Norwich Local Section, which will dissolve on December 31, 2010 because its membership also has fallen below the minimum membership requirement. This territory change will allow members residing in the Norwich territory to remain assigned to a local section.

## *ACTIONS OF THE BOARD OF DIRECTORS*

**The Board's Committees and Working Groups**

- The Board of Directors received written and/or oral reports from its Executive Committee and from its committees on Grants and Awards (G&A), Professional & Member

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# ACS Governance

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Relations (P&MR), Public Affairs and Public Relations (PA&PR), and Budget and Finance (B&F).

- On the recommendation of the Committee on Grants and Awards, the Board VOTED to approve nominations for the 2011 Perkin Medal and the National Science Board Public Service Award. The Board also approved a new ACS award.
- On the recommendation of the Committee on Professional & Member Relations, the Board VOTED to support the goals and targets developed by the Sustainability Stakeholders Steering Group and its component committees, and find them consistent with the ACS Strategic Plan. The Sustainability Stakeholders Steering Group promotes ACS sustainability leadership through facilitation, coordination, and communication among ACS stakeholders and members.
- The Chair briefed the Board on two items arising from the Executive Committee (EC) meeting, including a status report on the Board's budget and plans for the timing of a financial planning conference and strategic planning retreat, both to take place in 2011.
- The Board was briefed by its working group, which is monitoring the 2010 Board plan for logistics and training. This plan, which includes three broad topic areas and subtopics, is designed to enhance overall Board effectiveness.
- On the recommendation of the Committee on Budget and Finance, the Board VOTED to approve an advance member registration fee of $355 for national meetings held in 2011. The Board also considered three program funding requests, and on the recommendation of B&F VOTED to take the following actions:
  - to include funding for the ACS *Global Research Experiences, Exchanges and Training (GREET)* program in the Society's 2011 Proposed Budget;
  - to include funding for the *State Government Affairs Program* in the Society's 2011 Proposed Budget and 2012-2013 Forecast; and
  - to include funding for the *Department of Professional Education* in the 2011 Proposed Budget and 2012-2013 Forecast, subject to annual review. (The *Department of Professional Education* request was treated as a new program request rather than a reauthorization because the focus of the program is being redirected to a customized electronic format.)

**Strategic Issues: Revenue Diversification and ACS Global Presence: What should it look like?**

- At this meeting, the Board focused its attention on two major strategic issues – diversification of the Society's revenues and the ACS global presence. The Board engaged in considerable discussion on these topics and will continue its review of the ACS global presence topic at its December meeting. The revenue diversification topic will be included on the agenda of the financial planning conference, scheduled for June 2011.

**The Executive Director/CEO Report**

- The Executive Director/CEO, along with several of her direct reports, updated the Board on ACS and social media, technology trends and their impact on the Society, fundraising priorities for 2011, and the activities of Chemical Abstracts Service, the Publications Division, and the Society's General Counsel – including an update on the Leadscope litigation.
- On the recommendation of the ACS Governing Board for Publishing, the Board VOTED to approve the reappointment of two journal editors and the appointment of a new editor.

**Compensation of Society Staff**

- The Board received a report from its Committee on Executive Compensation that included a briefing from its executive compensation consultant. The compensation of the Society's executive staff receives regular review from the Board.

**Other Board Activities**

- The American Chemical Society and the German Chemical Society (Gesellschaft Deutscher Chemiker – GDCh) agreed to enter a three-year collaboration alliance with a strategic focus on communicating the value of chemistry to the general public and the role chemistry plays in addressing global challenges, as well as to identify and support other mutually beneficial services to ACS and GDCh. The signing of this memorandum of understanding took place during a special ceremony at the Board's regular session.
- The Board also received reports from several international guests representing the following scientific societies: the Federation of African Societies of Chemistry, the Federation of Asian Chemical Societies; the Chemical Society of Thailand, the Korean Chemical Society; the Mexican Chemical Society; the Royal Society of Chemistry, and the German Chemical Society. ◇

# Monthly Meeting

*Continued from page 5*

**From points north via Routes 1, 3, 28, I-93, or I-95**: The recommended approach is via Route 128 (also called I-95), to its intersection with I-93. Go south on I-93 to Exit 32, Medford Square. Proceed to the center of the square, turn left onto Main Street, and refer to the directions in the preceding paragraph. ◇

**Looking for seminars in the Boston area?**

Check out the NESACS Calendar

**www.nesacs.org/seminars**

## Wellesley College

*Continued from page 4*

awarded to Professor Virgo. Researchers are also eligible for standard chemistry awards such as the NSF CAREER award. The ACS Petroleum Research Fund (PRF) has specific grants that are designated for faculty from PUIs and research universities.

Researchers at Wellesley College are encouraged to initiate collaborations, with colleagues in other departments and those at other institutions. Within Wellesley College, the chemistry department is housed in an interdisciplinary science center with seven other scientific disciplines. This encourages collaborations, as researchers can simply "walk down the hall and toss around ideas with colleagues from another department," explained Professor Virgo.

Collaborations with other institutions can also be highly productive. For example, Professor Virgo maintains close ties with his post-doctoral supervisor, Professor Robert Field. Professor Virgo continues to conduct research at MIT, which has departmental resources that are not available to the smaller department at Wellesley College. This past summer, he brought Ms. Hyde and Ms. Spiegelman to collaborate with and conduct research in the Field Group at MIT.

The particular research conducted in the Virgo group involves using "sophisticated laser techniques to understand photochemistry related to the atmosphere and the environment," said Professor Virgo. To date, Professor Virgo has mentored ten students in his laboratory. The students learn that there is a connection between fundamental ideas that they learn in the classroom and sophisticated experimental techniques for solving real-world problems.

Professor Virgo said, "My goal is to get students involved in research that is going to be advantageous for whatever professional career they may pursue." Many students continue to medical school or other professional schools after they graduate from Wellesley, and several decide to pursue graduate degrees in chemistry.

## Biography

*Continued from page 5*

questions that no one ever asked. In 1977, an opening in Chemical Education was advertised at Purdue University. He applied for the position and, much to their later chagrin, the faculty at that institution offered him the job. (They have since compounded their error by promoting him to Associate Professor, then Professor of Chemistry and Education, and, more recently, as Distinguished Professor of Chemistry, Education and Engineering.) He is the author of more than 140 papers and 52 books or laboratory manuals. In 2003 he received the ACS Pimentel Award in Chemical Education and the Nyholm Medal in Chemical Education from the Royal Society of Chemistry. Last year be became both a Fellow of the American Chemical Society and a Fellow of the Royal Chemistry Society. He has been known to claim in public that his primary interest is in epistemology. His interests also include the development of materials to assist undergraduate instruction, research on how students learn, and the history and philosophy of science. ◇

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Professor Virgo's current students, Ms. Hyde and Ms. Spiegelman, were asked about their career plans. Five years from now, Ms. Spiegelman would like to be "working in a non-profit organization," although she has not ruled out the possibility of continuing her scientific research. Ms. Hyde, on the other hand, "wants to keep doing chemistry research," although she has not decided what sub-discipline most interests her.

In summary, Wellesley College provides a highly supportive environment, according to Professor Virgo. "We are encouraged to be great teachers and great researchers." Professor Virgo said, "It's a lot of fun." ◇



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# Calendar

## Check the NESACS home page for late Calendar additions: http://www.NESACS.org

**Note also the Chemistry Department web pages for travel directions and updates.**
These include:
http://chemserv.bc.edu/seminar.html
http://www.bu.edu/chemistry/events/
http://www.chem.brandeis.edu/colloquium.shtml
http://www-chem.harvard.edu/events/
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www.umassd.edu/cas/chemistry/seminars.cfm
www.uml.edu/Dept/Chemistry/speakers.html
http://www.unh.edu/chemistry/seminars.html

## Nov 01

Prof. Maria Santore (U. Mass., Amherst)
Tufts University, Science & Technology Center (4 Colby St), Room 136
12:00 pm

Prof. Peng Yin (Harvard University)
"Programming Nucleic Acids Self-Assembly Time"
Brandeis, Gerstenzang 122
3:45 pm

## Nov 02

Jon Ellman (Yale University)
UNH, Room NB 104 (L103)
11:10 am

## Nov 04

Stuart Rice (University of Chicago)
Harvard, Pfizer Lecture Hall
5:00 pm

## Nov 08

Sam Zard (Ecole Polytechnique)
"Adventures in Radical Chemistry: Some New Perspectives for Organic Synthesis"
Harvard, Pfizer Lecture Hall
4:00 pm

Prof. James Leighton (Columbia Univ.)
"Doing more with less: Design of Tandem Reactions for Efficiency in Chemical Synthesis"
Brandeis, Gerstenzang 122
3:45 pm

## Nov 09

Prof. Samir Z. Zard (Ecole Polytechnique, France)
"Fun with Radicals: Some New Perspectives for Organic Synthesis"
Boston College, Merkert 130
4:00 pm

## Nov 15

Prof. Harold Monbouquette (UCLA)
"Micromachined Multielectrode Microsensors for Neurotransmitters"
Tufts University, Science & Technology Center (4 Colby St), Room 136
12:00pm

Prof. Kian Tan (Boston College)
"Regio- and Stereoselective Hydroformylation using a scaffolding Ligand"
Brandeis, Gerstenzang 122
3:45 pm

Beat H. Meier (ETH Zurich)
Arthur D. Little Lectures in Physical Chemistry - I
"Prions: en route from structural models to atomic-resolution structures"
MIT, 6-120
5:00 pm

## Nov 16

Beat H. Meier (ETH Zurich)
Arthur D. Little Lectures in Physical Chemistry - II
"Solid-state NMR of proteins: recent progress"
MIT, 6-120
5:00 pm

Amy M. Deveau (Center for Excellence in Neuroscience, Univ. New England)
UNH, Room NB 104 (L103)
11:10 am

## Nov 18

Beat H. Meier (ETH Zurich)
Arthur D. Little Lectures in Physical Chemistry - III
Magnetic Resonance Imaging (MRI) at the nanoscale: spectroscopy with a force microscope
MIT, 34-101
5:00 pm

## Nov 23

Prof. Gregory Tew (U. Mass., Amherst)
Boston College, Merkert 130
4:00 pm

## Nov 29

Prof. Paul O'Brian (Univ. Manchester UK)
"Entering and Defining the Nano World"
Brandeis, Gerstenzang 122
3:45 pm

## Notices for The Nucleus Calendar of Seminars should be sent to:

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