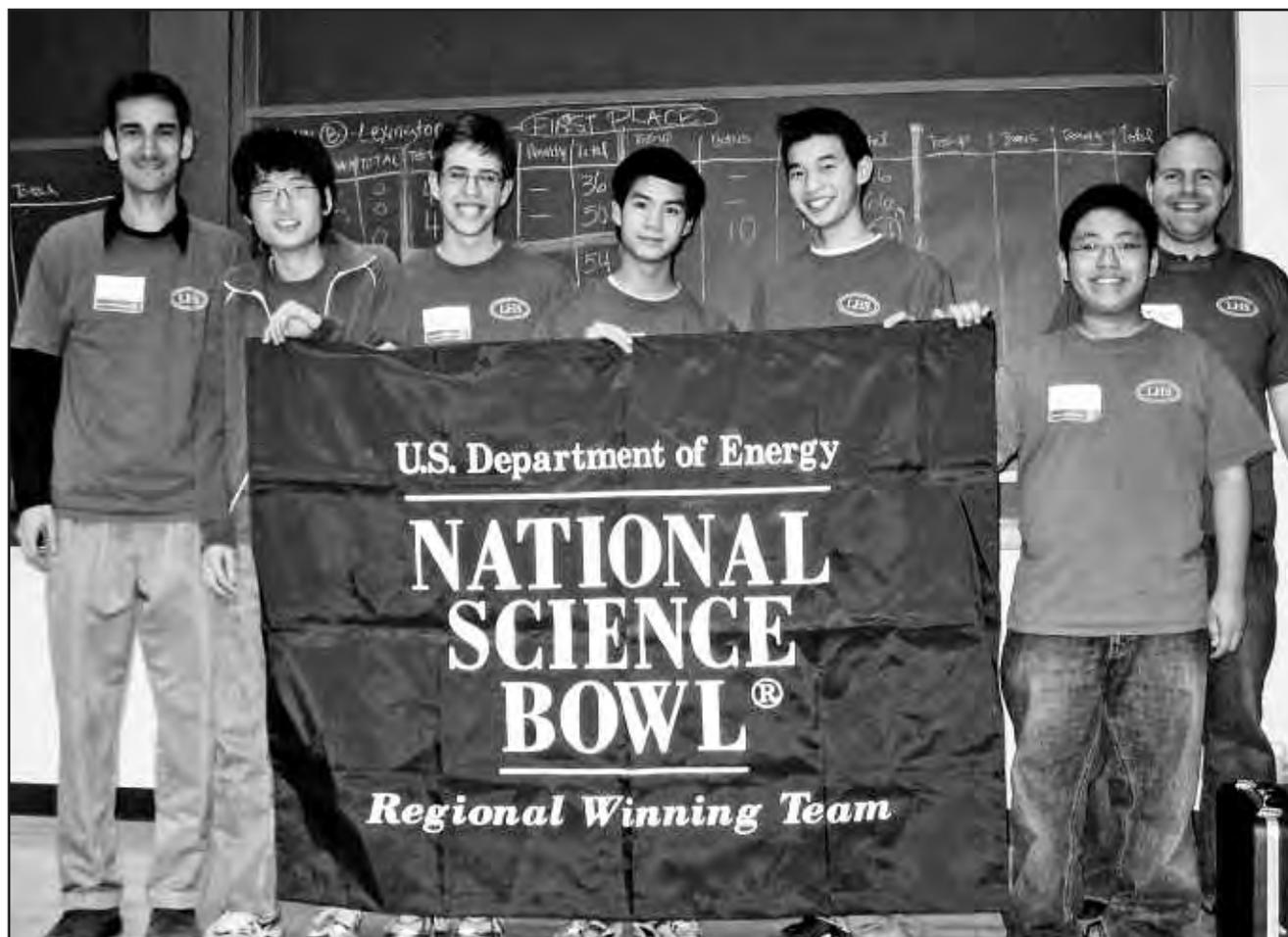


THE NUCLEUS

May 2009

Vol. LXXXVII, No. 9



Monthly Meeting

*Education Night Meeting at Northeastern U.
Dr. John M. Wozney, Wyeth Research, to speak*

From Graduate Student to Post-doc

By Mindy Levine

Memoirs of Professor Saul G. Cohen

A review by Myron S. Simon

Green Chemistry in the Heart of Massachusetts

By Stefan G. Koenig

My Journey from Graduate Student to Post-doc

By Mindy Levine

In March of 2007, I began my journey of attempting to find a post-doctoral position. At the start, I received this discouraging advice from a colleague: "If you think this is tough, don't worry, finding an academic job is even more difficult."

Nonetheless, by August of 2007, I had secured a post-doc position in the research group of Professor Timothy Swager at MIT. In July of 2008, mere weeks before I was scheduled to start my post-doc, I obtained an NIH post-doctoral fellowship. I write this article to give some advice to others who might be embarking on a similar journey, in the hope that they will also be successful.

1. *Start early.* One of the best pieces of advice that I received on obtaining a post-doc position is that it is never too early to begin your search. The sooner you begin, the more time you have to follow up with professors who do not respond to your initial

inquiry, or to schedule lab visits or interviews. Additionally, the sooner you obtain a position, the sooner you can start applying for fellowships (see point 5). In my case, I started looking for a position 14 months before I anticipated finishing my Ph.D.

2. *Choose a mentor with slightly different expertise.* Funding agencies as well as future employers want to see that you used your time as a post-doc to develop new expertise, learn new techniques, and gain new knowledge. When you apply for external funding, often the funding agencies will ask you to justify why you chose the mentor that you did, and what you hope to learn from your post-doc experience. If you choose a post-doc mentor in precisely the same field that your graduate research was in, then it is going to be hard to justify that decision.

3. *Follow up.* Professors are notoriously bad at replying to emails. If you do not receive a reply from a pro-

fessor you have contacted, it is easy to assume that the professor was not interested in your application and decided not to bother emailing you a rejection. This is most likely false. What likely happened is that the professor received three applications the same day he received yours, put them all in a pile to review later, then forgot about it. Or the professor was waiting to hear from a funding agency about grant renewal, put your application in a pile to review after he heard from the agency, and forgot about it. Or he was going to read your application, then a student came to his office, so he put it aside, and forgot about it.

If you do not receive a reply from the professor after a few weeks, send an email. Remind him that you still exist and are still interested in the position.

4. *Get guaranteed funding from the professor.* The professor will likely

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Cover: *The winning team, from Lexington High School, and their coaches at the 2009 Massachusetts Regional Science Bowl sponsored by Boston University and the Department of Energy. (L-R): Coach Nick Gould, Jaeyoon Lee (Junior), Noah Arbesfeld (Co-Captain/Senior), Joshua Leung (Co-Captain/Senior), Christopher Teng (Senior), Kyumin Lee (Senior), Coach Ryan Grams. (Photo Courtesy of a team parent).*

Deadlines: *Summer 2009 Issue: June 16, 2009*
September 2009 Issue: July 14, 2009

THE NUCLEUS

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Memoirs of Professor Saul G. Cohen

Reviewed by Myron S. Simon

One of the leading chemists in our Section has recently published an autobiography in the form of a series of memoirs. The book, *Memoirs of Saul G. Cohen*, relates his early life, education, difficulties in establishing a career in chemistry, jobs in industry, and finally his academic career, which had major importance for science and teaching at Brandeis University, especially his work in transforming that fledgling college into a small university with a highly respected reputation for its scientific research.

In the introduction by daughter Dr. Elisabeth Cohen, she writes, "It provides a remarkable picture of twentieth century life in Boston, particularly in academia, from the point of view of an accomplished scientist and educator, who also happens to be a gifted writer."

Saul's huge store of historic and scientific knowledge, his many friend-

ships with interesting people (anecdotes including the names of Nobel Laureates Selman Waksman, Drs. Minot and Murphy and Dorothy Crowfoot Hodgkin and Robert Woodward slip in) and his highly competent research for this book over his years after retirement has produced a story in which a passing reference may lead to a fascinating digression into, for example, the instability of aluminum towards iron oxide, or the diradical nature of oxygen, or the race to see which country has the most atomic firepower.

Saul, the fourth child in his family, grew up amid a host of uncles, aunts, and cousins, who had grown up in America, become well-educated, and were doctors and engineers. The family moved to Roxbury, and Saul was sent to the William Lloyd Garrison School, then one of Boston's leading grammar schools. The sixth grader Saul kept quietly to himself until an

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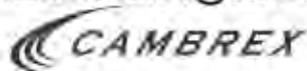
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intelligence test showed the high intelligence of the boy and he was sent to Latin School.

Boston Latin School was and is the premier high school in Boston, and Saul, entering in the seventh grade, spent six years receiving a solid classical education among other boys of high intelligence and ambition. I have frequently noticed that Latin School made more of an impression on its alumni in later life than any college did, and the loving description of his years there suggests that Saul thinks this way too.

Boston Latin? Then the next step is Harvard? Right? Well yes, certainly in Saul's case. He was graduating first

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Monthly Meeting

The 897th Meeting of the Northeastern Section of the American Chemical Society

Education Night

Thursday, May 14, 2009

Northeastern University, 324 Huntington Avenue, Boston, MA

4:30 pm NESACS Board Meeting

5:30 pm Reception – 450 Dodge Hall

6:30 pm Dinner

7:30 pm Award Meeting, Dr. E. Joseph Billo, NESACS Chair, presiding

Address: *Bone Morphogenetic Protein: Exciting Science Leading to an Innovative Product*, Dr. John M. Wozney, Assistant Vice-President, Musculoskeletal Therapies, Wyeth Research, Cambridge, MA

8:15 pm Presentation of Awards

Philip L. Levins Memorial Prize
James Flack Norris/Theodore William Richards Awards
Undergraduate Research Fellowships
Undergraduate Grants-in-Aid
Undergraduate Research Symposium
Project SEED Students
Excellence in Teaching at the Secondary School Level
Induction of New Members into *Aula Laudis*
Avery A. Ashdown Chemistry Examination Awardees
Simmons College Prize

Dinner reservations should be made no later than noon, Friday, May 8th. Please call or fax Marilou Cashman at (800) 872-2054 or e-mail at [MCash0953\(at\)jao.com](mailto:MCash0953(at)jao.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

Public transportation is strongly suggested. Take the Green Line E train to the Northeastern stop, or the Orange Line to the Ruggles stop. Follow signs to the boardroom or ballroom from there. Or, take the Orange Line to the Mass Ave stop and go up the stairs at the west end of the platform, go through the turnstile and turn right onto the pedestrian overpass. Then make a left at the bottom of the stairs near the Gainsborough Parking Garage. Visit: <http://www.campusmap.neu.edu> for a map of the Northeastern University Campus. A limited amount of parking will be allotted in the Gainsborough Parking Garage (closest to the meeting) at 10 Gainsborough St. or the Renaissance Parking Garage located at 835 Columbus Avenue. Please contact Marilou Cashman for a parking pass if necessary. Anyone who needs special services or transportation, please call Marilou Cashman a few days in advance so that suitable arrangements can be made. ◇

Biography

Dr. Wozney received both his A.B. and Ph.D. degrees in biochemistry from Harvard University and subsequently was a post-doctoral fellow at Massachusetts Institute of Technology. After joining the biotechnology company Genetics Institute (now part of Wyeth), he conducted research leading to the identification of a new family of proteins (BMP)[®], the Bone Morphogenetic Proteins, key signaling molecules involved in the growth and maintenance of bone and soft tissues. He then led the efforts to develop one of these molecules, BMP-2, as well as an appropriate local delivery system, as a bone-inductive therapeutic. This innovative product is now marketed worldwide as INFUSE[®] and InductOs[®], which has found widespread use in orthopaedics. Dr. Wozney is an internationally recognized expert in the fields of BMP and bone biology, and continually presents his work worldwide. He has held positions of increasing responsibility while at Wyeth and is currently an Assistant Vice President in the Musculoskeletal Therapies department of Discovery Research. He is the author of over 140 peer-reviewed publications and an inventor on over 40 issued U.S. patents. Recent awards include his being named to *R&D Directions* Top 20 Scientists list. ◇

bone regeneration and augmentation. Starting in the 1980s, we initiated a program to identify the protein or proteins in bone that were responsible for this bone-inductive activity. Starting with large quantities of bovine bone, an extensive purification scheme resulted in small amounts of protein with bone-inductive activity. Molecular cloning identified that this purified material contained a number of closely related proteins, which were named BMPs after the original observation. Subsequent expression of individual BMPs in recombinant systems followed by implantation in animals proved that a single BMP molecule, such as BMP-2, could induce the formation of new bone *in vivo*. New members of the

continued on page 8

Abstract

The existence of a Bone Morphogenetic Protein (BMP) was hypothesized in the mid-1900s based on the ability of devitalized bone, and later bone extracts, to induce the formation

of new bone tissue when implanted into an animal. Due to the unique nature of this *in vivo* activity, this remained a controversial topic for a number of decades. However, the therapeutic potential of such a protein (if it existed) was broad, including accelerating and assuring fracture repair, as well as

Northeastern Report Hosts ACS President-Elect



Graham Jones and Joseph Francisco

The Northeastern University ACS student affiliate chapter hosted President-Elect Joseph Francisco on his recent visit to Boston on January 15. President-Elect Francisco chose to meet with the group because of their high level of involvement and commitment to the organization. The chapter was resumed in 2002 after a period of inactivity and since then has won both commendable chapter and honorable mention awards. Membership has increased from 10 members to over 150 current members. The chapter is extremely involved in community outreach, including volunteering at Rosie's Place and at local hospitals and sponsoring chemistry demonstrations at high schools. The chapter has hosted a wide variety of speakers including professionals from the pharmaceutical industry, the cosmetic industry and the FBI, in order to expose students to various career paths.

Dr. Francisco gave an overview of ACS activities at the national level, his vision for his term as President and how he anticipates interacting with the new Obama administration. He then fielded questions from students on a variety of topics and congratulated the chapter and the Department of Chemistry & Chemical Biology for their commitment to excellence. The students and Chair of the Department, Graham Jones, found his presentation to be both informative and stimulating. ◇

Report *7th Annual Undergraduate Environmental Research Symposium, Bridgewater State College, Moakley Center*

November 15, 2008

On Saturday, November 15, 2008, the 7th Annual Undergraduate Environmental Research Symposium was held in the John Joseph Moakley Center at Bridgewater State College. The Symposium ran from 9:00 AM to 2:30 PM and featured a *record 54 poster presentations* from undergraduate researchers representing colleges and universities from across the New England region. Over 100 students, faculty and guests were in attendance. The Symposium was officially opened by Dr. Rita Miller, Dean of the College of Arts and Sciences. Dean Miller spoke of the critical importance that undergraduate research plays in training students to understand and solve the growing problems in our society related to sustainability, global warming and climate change.

The theme of the 2008 Symposium was, **“Water: Regional and International Issues.”** The formal program began at 9:15 AM with a presentation by **Dr. Ellen Marie Douglas**, professor of hydrology at UMass-Boston, who gave a talk entitled, **“Issues in Water Resources from New England to the Globe.”** A second talk was given by Dr. Kevin Curry, professor of biology at Bridgewater State College whose presentation was on, **“One Filter at a Time: Health and Pure Water for Cambodia.”**

The poster sessions began immediately following the presentations, running from 10:45 – 2:15. Attendees were treated to a continental breakfast and a deli platter for lunch.

The complete program with all presenters, titles and abstracts can be accessed from the Symposium web page: <http://www.bridgew.edu/Environmental/>.

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SAPA-NE Annual Conference

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Industry in the Current Global
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- (1) New Paradigms of Drug Research and Development
- (2) Era of Personalized Medicine
- (3) Future Innovation: Biotech and Academies
- (4) Panel Forum: Globalization of the Industry

The conference will feature outstanding speakers from senior industrial executives and leading academic scholars.

Time: Saturday, May 16, 2009,
8:30 AM – 5:30 PM

Place: Wong Auditorium, Tang Center, Building E51, Sloan School of Management, Massachusetts Institute of Technology (MIT), Cambridge, MA 02139

Dinner Reception: MIT Faculty Club
(6:00 PM – 9:30 PM)

SAPA-NE Executive Committee ◇

of Undergraduate Research-Center for Sustainability

- Northeastern Section of the American Chemical Society

The 8th Annual Environmental Research Symposium is tentatively scheduled for Saturday, November 14, 2009

NESACS Students Receive Awards in Germany

By Morton Z. Hoffman



Iski (at right) and Steinberg proudly display their award certificates and book prizes.

Erin Iski and Brian Steinberg, graduate students at Tufts University and Boston College, respectively, were among the ten participants at the 11th Young Scientists Conference on Chemistry, which was held at the University of Essen-Duisburg, Germany, March 11-14, 2009, who were recognized for the superior quality of their poster presentations.

Iski, a third-year graduate student, described her Ph.D. thesis work with Professor Charles Sykes on “AgCl Monolayers on Au(III): Novel-Ultrastable and Atomically-flat Surfaces.” Steinberg, who anticipates receiving his Ph.D. within the next year with Professor Lawrence Scott, made a presentation on “Target Oriented Total Synthesis Leads to a New Class of Unnatural Products.”

The conference, which was organized by the *Jungchemikerforum* (JCF) of the German Chemical Society (GDCh), was attended by more than 400 students from about 20 countries, including the group of four undergraduates and eight graduate students in chemistry and chemical engineering from colleges and universities within

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Medicinal Chemistry Symposium

Joint Meeting NESACS Medicinal Chemistry Group and the Boston Society

Frontiers in Strategies and Technologies to Enrich Pharmaceutical Pipelines

Organized by the Boston Society and the Medicinal Chemistry Section of the Northeastern Section, American Chemical Society

May 21 & 22, 2009

Merck Research Laboratories, Amphitheater

33 Avenue Louis Pasteur, Boston, MA

This is a two day conference and workshop. NESACS members receive a \$150 discount from the lower ‘society’ registration rate. Use the discount code ‘NESACS’. Please use the link to register for the conference: <http://www.appliedpharmaceuticalchemistry.org/registration.htm>.

Direct all questions to the Boston Society website at: <http://www.bostonsociety.org> or contact Joe Chase at 781.861.0134 (joe@bostonsociety.org).

Directions to MRL Boston

Please use [Merck Research Laboratory web page](#) for the directions. There is no parking available at Merck’s site. Using public transportations is highly recommended ◇

NSYCC Symposium Report

Written, compiled and submitted by Patrick Cappillino and Leland Johnson

Thanks for a Successful NSYCC Career Symposium

NSYCC would like to thank everyone involved in February’s Career Symposium and Panel Discussion, *Overcoming Barriers in Careers in Chemistry and the Chemical Sciences*. Patrick Gordon and Daniel Eustace, experienced career consultants and veterans of academia and industry, respectively, assembled the distinguished panel. The panel included Rebecca Carrier (Assistant Professor of Chemical Engineering, Northeastern University), John McKew (Associate Director, Chemical and Screening Sciences, Wyeth), Dorothy Phillips (VP and Director of Strategic Marketing, Waters Corporation), Wilton Virgo (Assistant Professor of Chemistry, Wellesley College), and Valerie Petit

Wilson, Assistant Dean of the Graduate School, Brown University. The career paths of the individual panel members provided a depth of experience which proved extremely informative for the audience members.

Members of the audience included undergraduates and senior graduate students as well as chemists from industry. One third-year graduate student commented that “the overall message of the panel was extremely positive and motivational.” Another graduate student, preparing to start a post-doctoral stint abroad, remarked “the panel members were able to draw on specific, poignant life experiences in advising me of the balance of going abroad: the advantage, the potential pitfalls in re-integration into the US, and some suggestions for avoiding

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5th Annual NESACS Golf Tournament

All proceeds support NESACS programs

Wedgewood Pines Country Club

<http://www.wedgewoodpines.com>

Stow, MA

July 14, 2009

Shotgun Start at 1 PM

BBQ and Awards Immediately Following

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BBQ dinner

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- \$1000 Tritium
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Payment: By check only. Please send your check to:
Marilou Cashman, NESACS Administrative Secretary
23 Cottage St., Natick, MA 01760

Abstract

Continued from page 5

TGF- β superfamily of growth and differentiation factors, a large body of subsequent research has shown that the BMPs are key locally-acting signaling molecules involved in a variety of processes during embryogenesis and in the adult, including formation of the skeletal system as well as specification of soft tissue types. The development of recombinant human BMP-2 (rhBMP-2) into a therapeutic involved a number of steps, including the development of a manufacturing process for the protein and selection of carrier systems for local delivery the protein to the site where bone formation is desired. Preclinical and clinical studies then evaluated the ability of rhBMP-2 in combination with an absorbable collagen sponge (ACS) to induce bone formation and accelerate fracture repair. Beginning in 2002, rhBMP-2/ACS was approved for clinical use in several indications such as interbody spinal fusion (as a replacement for bone graft), acute tibia fracture repair, and certain bone augmentation procedures in the oral/maxillofacial area. A series of BMP/carrier combinations are subsequently being evaluated as potential agents for hard and soft tissue repair and regeneration. \diamond

NSYCC Symposium

Continued from page 7

those pitfalls."

The event was an unmitigated success, with the panel members tackling important topics such as changing concentrations within or peripheral to chemistry, international relocation, moving from industry to academia, some of the industry's approaches to "management track versus research track," as well as the classic "two-body problem" faced by married couples in science.

Finally, an audience member remarked that it was "especially [important] to learn about the wide prospects after completing a PhD. I would be happy to attend more pro-

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Two NESACS Students

Continued from page 7

NESACS who traveled on the exchange program of the Education and the Younger Chemists Committees.

In addition to Iski and Steinberg, the NESACS delegation included Marina Consunji (undergraduate, Wellesley College); Tamara Halkina (undergraduate, Harvard University); Mariam Ismail (graduate student, Northeastern University); Andrew Kleinke (graduate student, Boston University); Christina Li (undergraduate, Harvard University); Olga Makhlynets (graduate student, Tufts University); Raeanne Napoleon (graduate student, Boston University); Courtney Pfluger (graduate student, Northeastern University); Rachel Tsui (undergraduate, Boston University); and Daniel Turner (graduate student, M.I.T.).

Accompanying the students were Michael Strem (Strem Chemicals), Ruth Tanner (University of Massachusetts Lowell), Deniz Yuksel (graduate student, Tufts University; NESACS-YCC Vice-chair), and Morton Hoffman (Boston University).

This year's trip to Germany marked the sixth occasion of a visit by a delegation from NESACS; previous exchanges took place in 2002 (Cologne and Aachen), 2003 (Munich and Dresden), 2005 (Berlin), 2006 (Konstanz), and 2008 (Rostock). In 2001, 2004, and 2007, delegations of German graduate students visited Boston. The next exchange will take place in August 2010, when the German delegation will visit at the time of the ACS national meeting. ◇

NSYCC Symposium

Continued from page 8

grams like these." This audience member, as well as those who were unable to attend the discussion, can download the podcast at www.nsycc.org and in the near future at www.nesacs.org.

Discussion of potential career paths will be continued at the Northeast Student Two-Day Chemistry Symposium, on May 1st and 2nd. See www.nsycc.org for registration details. ◇

The NESACS Committee on Continuing Education is pleased to sponsor a Short Course designed to improve the skills and marketability of B.S., M.S., and Ph.D. chemists, at a registration fee about one-third of that charged at National ACS Meetings

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Thursday, May 21 & Friday, May 22, 2009, 8:30 AM – 4:00 PM

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INSTRUCTOR: E. Joseph Billo

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Dr. Billo is the author of *Excel® for Chemists, 2nd Ed.*, and *Excel® for Scientists and Engineers: Numerical Methods*, both published by J. Wiley and Sons. He has taught these courses to over 2,000 scientists at locations including ACS National Meetings, Amoco, Bayer, Chevron, Hercules, Kodak, Genzyme, National Cancer Institute, NIST, PITCON, Proctor & Gamble, Shell, Texaco, Unilever, and numerous others.

For further information contact Prof. Billo at: (508) 653-3074 or joseph.billo@verizon.net

Attendees should have some familiarity with Excel® in order to benefit from this course. Participants should bring a laptop computer with Excel and CD-ROM drive. 110V outlets will be provided for power supplies.

PRE-REGISTRATION REQUIRED

There will be a limited number of \$400 scholarships for unemployed ACS members.

Registration Fee* received by	May 11	after May 11
ACS Members	\$500	\$595
Non - ACS Members	\$600	\$695
Graduate Students	\$250	\$345
Undergraduate Students	\$125	\$220

***Includes a copy of Excel* for Chemists, 2/e, value \$74.50)**

REGISTRATION FORM

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I use: PC Mac Excel 2003 Excel 2007

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Mailing Address _____

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\$ _____

Tel: _____ e-mail: _____

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Please make check payable to NESACS (Sorry, no P.O.'s or credit cards.)

Massachusetts' Best Science Athletes Compete for Regional Gold

By Lisa Christadore

Determined, prepared, and charged with energy, the Boston area's top high school science and engineering whizzes flooded the halls of Boston University's Photonics Center early Saturday morning, February 28th to compete in the 2009 Massachusetts Regional Science Bowl. Months of intense research and regimented practice duels in the subjects of chemistry, biology, physics, astronomy, earth science, general science, and mathematics united competitors from twenty-four high schools at the annual Science Bowl (<http://people.bu.edu/scibowl/>).

The teams pushed their science knowledge to its limits in the daylong battle for the regional title and advancement to the National Science Bowl finals in Washington, DC, sponsored by the U.S. Department of Energy (<http://www.scied.science.doe.gov/nsb/>). "The Science Bowl places science and math on the same competitive level as sports, which gives students an outlet for their minds to rival and a tangible goal, like Nationals, to be passionate about," says Science Bowl Student Coordinator, Lucy Liu.

The Massachusetts Regional Science Bowl came to Boston University (BU) in 2006 by virtue of an ambitious collaboration between undergraduates, Ishan Patel (CAS '08) and Ashmita Randhawa (ENG '08), and a supportive chemistry department. Patel and Randhawa successfully established BU as one of the Regional Bowl's official sites. BU's LERNet (<http://www.bu.edu/lernet/>) and departments of Chemistry, Biology, Physics, and Mathematics took the lead in providing organizational and monetary support, and students, faculty, and staff assembled to help coordinate the huge event. Merck Research Laboratories-Boston stepped in as the Science Bowl's generous coporate sponsor, providing both financial resources and scientist volunteers. More recently, BU's Engineering Department joined the Bowl's support network.

"There was tremendous support from BU's science departments," recalls Katinka Csigi, Administrator of Grants Development, Dept. of Chemistry and one of the Bowl's first directors. "Faculty, students, and staff truly went above and beyond to ensure that everyone: high school students, coaches, and volunteers would have a great day. It was BU at its best."

The "Jeopardy-style" forum encompassed nine round-robin duels, followed by single-elimination playoffs and the highly anticipated final match-up. This year's final round culminated with a match between Lincoln Sudbury Regional High School and Lexington High School. Lexington won by a fifty-point landslide. Coaches Nick Gould and Ryan Grams, stood proud, and Lexington team members exploded with excitement.

"We put together an eager and competitive team: experts in at least two subjects, quick with the buzzers, and



Lexington HS team members and lead BU Science Bowl Coordinators at the conclusion of the competition. (L-R, standing) Mehak Gandhi, BU Bio-medical Engineering '09, Noah Arbesfeld (Co-Captain/Senior), Jaeyoon Lee (Junior), Joshua Leung (Co-Captain/Senior), Christopher Teng (Senior), Kyumin Lee (Senior), and Coach Nick Gould. (L-R, kneeling) Cora Carey, BU Science Bowl Head Coordinator, Lucy Liu, BU Medical Sciences '11, and Sophia Zhang, BU Biology '11. (Photo by Viral Doshi).



Lexington HS Science Bowl team in competition pose:(L-R) Christopher Teng (Senior), Joshua Leung (Co-Captain/Senior), Noah Arbesfeld (Co-Captain/Senior), Jaeyoon Lee(Junior) and Kyumin Lee (Senior). (Photo by Lucy Liu)

extremely dedicated," says Lexington Coach, Nick Gould. Lexington's team consists of twenty members who dedicate countless hours writing practice questions and running simulation tournaments. "The first week of school the students knocked on my door, and asked, 'When do we start?!' They love preparing for this competition," Gould said.

The Massachusetts Science Bowl continues to foster an environment where intellectual aptitude and stamina, humility and sportsmanship, collide on a common playing field. It not only broadens the scientific knowledge of Massachusetts' foremost scholars, but it also embodies a science community's passion and commitment to progressing education. "As a coach, it is rewarding to see so many students pumped to learn science *and* extremely supportive of one another...for Lexington, winning was the icing on the cake," Gould remarked. ◇

Green Chemistry in the Heart of Massachusetts

by Stefan G. Koenig, Ph.D.

Despite being the second largest city in New England, Worcester, MA, is not often recognized for its scientific contributions. Still, the city known as the "Heart of the Commonwealth" has an impressive collection of institutions of higher education at the center of scientific progress. One of these, Worcester State College (www.worcester.edu/), has received increased recognition over the past several years for its Chemistry Department's initiative to focus on "green" chemistry.

Green chemistry is concerned with improving chemical processes by eliminating or reducing the use of hazardous substances from the outset, preventing difficult or expensive treatment of waste after the fact. The field, also referred to as "molecular-level pollution prevention," was established in the 1990's by pioneers Paul Anastas of the Center for Green Chemistry & Green Engineering at Yale University (www.greenchemistry.yale.edu/) and John Warner of the Warner Babcock Institute (www.warnerbabcock.com/), just around the corner in Wilmington, MA. The principles introduced in their seminal book, "Green Chemistry: Theory and Practice," are increasingly being applied to exploratory research, as well as to mature processes and products.

Under the guidance of Associate Professor Margaret Kerr, Worcester State has placed an emphasis on green chemistry education for the better part of this decade and is regarded as one of the leading institutions in the region. Though the program began with a simple reconfiguration of traditional organic lab procedures, it has blossomed into an opportunity to explore "green options," according to Professor Kerr. The program is "not business as usual" and instead allows students to contrast new methods with older techniques. Currently, 200 students pass through the green organic chemistry laboratory course during the academic year, joined by more than 150

others over the summer.

The revised laboratory procedures at Worcester State incorporate green chemistry principles in order to bring negative issues to the forefront; the alternative methods produce less hazardous waste so they are more environmentally friendly and safer for the students. In addition, they give students an opportunity to work on modern applications, preparing them better to work in industry where the trend is to move towards safer, more sustainable practices and products. Because it is such a rapidly growing field, Professor Kerr believes that green chemistry is an area where students can actively be part of the solution, taking on responsibility and helping to make their own future cleaner.

The recognition that future generations of chemists need to be educated in a different way comes from the realization that though chemical products

have greatly enhanced lives, they can also present undesirable toxic effects downstream. Improved training in toxicology and sustainability is designed to help graduates better grasp these potentially deleterious effects. Worcester State's efforts are now part of a network of several institutions of higher learning across the country. In addition to the lab course, the department also offers an upper-level elective lecture course and further developments, including advanced research projects, are underway.

In 2008, the program was awarded a three-year, \$200,000 grant to fund equipment purchases by the Stoddard Charitable Trust. The addition of sophisticated instrumentation, including several spectrophotometers and an analytical ultracentrifuge will undoubtedly enhance the green chemistry program, particularly when it is expanded to

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Student to Post-oc

Continued from page 2

want you to apply for external funding from a variety of funding agencies. This is a process that should be taken very seriously (see point 5). However, the funding for your position should be guaranteed regardless of whether you obtain a fellowship. Applying for, and receiving, an external fellowship is a very difficult, capricious, time-consuming process. If you do not have guaranteed funding from the professor, and you do not receive an external fellowship, you are going to be in trouble.

5. *Apply for fellowships.* There are countless opportunities to apply for external fellowships, especially if your research is related to biological or medical research. Take advantage of these opportunities; apply for as many of the fellowships as you can. Do not get discouraged when you get rejected. Read the rejection summaries, make adjustments to your research proposals, and apply again.

You can apply for fellowships as early as a year before your anticipated start date. Before you apply, you must know whose lab you are going to, so that you can work with that mentor to develop a coherent research proposal that fits with the goals of the lab. This is another reason why it is critical to start applying for post-doc positions early.

Understand that the process of applying for external fellowships is tremendously time-consuming. You will likely be working on them at the same time that you are trying to finish your graduate research, write your thesis, and satisfy any final remaining requirements. However, if you are successful in obtaining a post-doc fellowship, that success will stay on your CV for the rest of your professional life.

When you apply for your first academic job, universities will look at your success in obtaining post-doc funding as a good indication that you will likely be successful in obtaining funding in your career. This will hopefully improve your chances of finding an academic job (or so I've been told; as I am not yet at the position of applying for academic jobs, I cannot com-

Prof. Saul G. Cohen

Continued from page 4

in his Class of 1933 and, though his nose was a little out of joint because he had been turned down by Tufts, he was aware that Harvard was the right place to continue his education. (There was a little dark secret that Saul could not have known, that Tufts never accepted the top graduates from the Latin School because the admissions people knew that those boys always went to Harvard, true at his time and ten years later as well.)

Saul entered Harvard as a commuter, riding the streetcars daily, missing much of the collegiality experienced by the students living in the Houses, but by the time he was a

ment definitively).

You can continue to apply for fellowships (in most cases) until a year after you have started your post-doc. The following is a list of post-doc fellowships that I applied for:

- (a) National Institutes of Health (NIH)
- (b) American Cancer Society
- (c) Damon Runyon Cancer Research Foundation
- (d) Helen Hay Whitney Foundation
- (e) Jane Coffin Childs Memorial Fund
- (f) National Geospatial-Intelligence Agency
- (g) National Science Foundation (NSF) - American Competitiveness in Chemistry Fellowship

Some of these fellowships give a lot more money to post-docs than I was promised by my post-doc mentor; others, like the NIH fellowship that I obtained, give less. Each fellowship has unique formatting guidelines, supplementary forms, statements of career goals and aspirations, etc., which will take time to fill out correctly. Luckily, you can probably use the same basic proposal for multiple fellowship applications, slightly re-tooled to meet the aims of each funding organization.

If you are just starting this journey, or if you are at any point along the way, I wish you the best of luck for a successful and happy ending. ◇

junior Harvard's new president, James Bryant Conant had given the commuters Dudley Hall, which provided some of the missing participation. The friends from Dudley Hall, many from Latin School, were to be some of Saul's most long-lasting friends from his Harvard days.

The chapter on his undergraduate days contains an incisive critique of the Harvard education of that day, at the transition from A. Lawrence Lowell's presidency to that of James Bryant Conant. But Saul, a master teacher, has summarized the history of the world, the biblical history, the chemical history including the Periodic Table, atomic theory, radioactivity, all in that chapter, concluding that "Chemistry seemed reasonable, and important, and far easier for me to deal with, than the vexing problems of society and politics," as he switched his major field from history to chemistry. The story continues with election to Phi Beta Kappa in his junior year, and graduation with a *summa cum laude* degree.

While we follow his education we are always reminded of the Depression economics that circumscribed his every activity. He was earning his college education and he knew that it was of major importance to keep his grades high to retain his scholarship. But to go to graduate school was another story. With his brilliant undergraduate successes he had been accepted at the dozen chemistry departments he had applied to, but turned down for the teaching assistantship necessary to pay his way. Only the late spring decision by Harvard Chemistry Department junior professor Paul D. Bartlett, midwife to the birth of a scholarship for Cohen, allowed him to continue his chemistry at the graduate level.

Saul's graduate work with Professor Bartlett led to a stint on a government contract working with poison gases and Saul had the misfortune of an exposure which led to angioneurotic edema and ten years of adrenalin shots to treat it. A National Research Fellowship took the now Dr. Saul Cohen as a post-doctoral fellow and his newly married wife to UCLA. There, Saul continued his search for an academic

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Prof. Saul G. Cohen

Continued from page 12

position in which he could follow his own research interests. Yet, in spite of the number of published research papers from his work with Bartlett and on his own, he had no academic offers, and had to settle for a job in industry at PPG's Columbia Chemical company in Akron, OH. A year there and an offer from Polaroid Corporation brought the family back to Boston. Edwin Land's offer stipulated that Saul could work on any research problems he chose. Saul's relationship to the reticent Land, after the original one word interview, "O.K." grew steadily more verbal over time as Saul solved important problems, which allowed instant photography to become a commercial product. He found his work with Mr. Land "nurtured warm, enduring mutual respect." (He was one of very few who were invited to family dinners at Land's home.) But Saul found himself doing less of his own research as he became more involved in improving the black and white film and in the quest for instant color photography.

When a Boston newspaper reported that a new university named for Justice Brandeis was to be opened in Waltham, Saul was interested enough to request a letter of recommendation from Professor Bartlett. This led to nothing at that time, but three years later a call from Brandeis was the beginning of Saul's academic career. Parting with Polaroid was attempted, but Land arranged that, while having a full time position at Brandeis, Saul also would remain a Polaroid employee with employee benefits. He was only expected to attend occasional meetings at Polaroid and offer advice.

Saul was hired by Brandeis's President Sachar to set up the School of Science, and the responsibilities enlarged as Saul pushed to make Brandeis not just a small college but a great small university with an emphasis on outstanding research. With the backing of Sachar, Saul succeeded in influencing the growth and shaping of Brandeis University. From his original appointment as Chairman of the

Green Chemistry

Continued from page 11

include advanced laboratory research. And by all measures, the students are very keen to take part in a broadened program. Last year they rewarded Professor Kerr's efforts with the George I. Alden Excellence in Teaching Award, granted annually by student vote.

The focus on green chemistry at Worcester State College is part of a larger development ultimately leading to a sustainable existence and a green economy. The principles outlined by Anastas and Warner are steadily making their way into the consciousness of current chemistry practitioners. Yet the true sea change will occur when rising generations of chemists learn these precepts during their initiation into the field of chemistry. When the qualifier "green" no longer needs mention, the objectives of green chemistry will have been accomplished. Worcester State is playing its part in making the next generation of chemists more aware before they embark on their careers of improving lives while also preserving the planet. ◇

School of Science for five years, he moved on to Dean of Faculty for four years. Much of the chapter describes his hiring the academic staff members and his philosophy of teaching. To get back to teaching and research, he resigned the deanship and chairmanship of the Chemistry department. Still, his were the "firsts" at the new school: First Dean of Faculty, First Chairman of the School of Science, First University Professor, perhaps the first faculty member to rise up to Dr. Sachar's vision of what Brandeis could become.

The Appendix records several important speeches that Saul gave, some partly autobiographical, some his thoughts on education, some as warnings of the nuclear threat, and the need for a Comprehensive Test Ban Treaty, and his Harvard Class's tribute for his "having planted a bit of my Harvard on the hillsides of Waltham."

The book was privately printed, but a DVD exists. ◇

Northeast Regional 2009 ACS Meeting

NERM 2009

October 7-10, 2009

Hartford, Connecticut

The 36th Northeast Regional ACS Meeting (NERM) will be held at the Hartford Hilton Hotel on October 7-10, 2009. The following is a preliminary list of confirmed symposia: Advances in Cleaner, Greener Synthesis; Bioanalytical Chemistry; Biodiesel/Biofuels; Chemical Biology; Chemical Education Research; Nanotechnology: Synthesis, Characterization, and Applications; Organic Chemistry Research at Undergraduate Institutions; Organic Synthesis to Begin the 21st Century; Polymer Chemistry for Nanocomposites; Porphyrins and Related Macrocycles; Surprises in Spectroscopy; Nanomaterials; Organic Synthesis; Polar Science and the Chemistry of Climate Change.

The following awards will be presented:

- The ACS Division of Chemical Education Northeast Region Award for Excellence in High School Teaching
- The E. Ann Nalley ACS Northeast Region Award for Volunteer Services to the American Chemical Society
- The ACS Northeast Region Award for Achievements in the Chemical Sciences
- Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences
- The ACS Regional Industrial Innovation Awards

For more details about the program and awards, and information about housing, registration, and the submission of abstracts, see <http://membership.acs.org/n/nerm/>. ◇

NESACS Election

Election of Candidates 2009

Chair-Elect

Patrick M. Gordon



Education: B.Sc. University of Guyana (1977); M.Sc, University of New South Wales, Australia (1982); Ph.D., University of Manitoba, Canada (1987)

Professional Experience: Post Doctoral Associate, Kansas State University, (1987-1988); Organix Inc., Woburn, MA (1988-1991); Senior Scientist, Polaroid Corporation (1991-2001); Arque Inc. (2001-2002); Polymer Laboratories, (2003-2004); Emmanuel College, Adjunct lecturer (2004-present); Simmons College, Adjunct lecturer (2005 to Present).

ACS Service: Alternate Councilor (1994-1996, 1997-1999, 2000-2001, 2003-2006)

NESACS Service: NERM Chair of the Symposium on Cannabinoids, (1989); Centennial Committee Co-Chair (1998); Member, Board of Publications 1999 to present; Secretary, Board of Publications, 2000; Chair, Board of Publications, 2002, 2004; Member, Board of Publications, 2003; alternate councilor ('94-'96 and '97-'99, '00-'01, '06-'08).

Statement: It will be an honor to serve as chair elect of the Northeastern section of the American Chemical Society (NESACS). I have had the privilege of serving NESACS since 1990 as a result of my involvement with the Medicinal Chemistry group. Subsequently, I served as an alternate councilor ('94-'96 and '97-'99, '06-'08). In 1998, I was co-chair of the Centennial committee with Dorothy Phillips, when the section celebrated 100 years. In

addition, I served on the Board of Publications in several roles, culminating in being chair of the committee and I assisted in guiding the publication through a period of slow advertising revenues. I am currently serving as a career consultant within the division of Professional Relations as we endeavor to provide better career services such as resume writing and interviewing skills to the members of the American Chemical Society.

If elected, I will endeavor to initiate and sustain programs that will benefit current and future members of the Section. I believe that it is imperative that NESACS continues to strengthen its programs while developing new strategies that will positively encourage underrepresented groups in the Science Technology Engineering and Mathematics (STEM) fields. For example, NESACS can be a driving force to initiate and support middle and high school science bowl teams which can compete in the national science bowl competition run by the Department of Energy. The pipeline of young scientists has to be filled at the middle school and high school levels in order to provide better access to opportunities in the STEM fields.

Liming Shao



Education: Ph.D. (Industrial Chemistry), 1993, The University of Tokyo, Japan; M.A. (Industrial Chemistry), 1990, The University of Tokyo, Japan; B.S. (Organic Chemistry), 1982, Fudan University, China.

Professional Experience: Research Associate, WHO Collaborating Center

for Research in Human Reproduction (Shanghai, China, 1982-1987); Postdoctoral fellowship, Chemistry Department, Harvard University, (1993-1996); Research Associate, Molecular and Cellular Biology Department, Harvard University (1996-1998); Department Associate, Molecular and Cellular Biology Department, Harvard University (1998-present); Scientist, Sepracor Inc., (1998-2000); Senior Scientist, Sepracor Inc., (2000-01), Associate Director, Sepracor Inc., (2001-2005), Director (2005-2008), Senior Director, Sepracor Inc., (2008-current).

Memberships and Honors: American Chemical Society, American Association of Pharmaceutical Scientists, American Pain Society.

ACS/NESACS Service: Program Chair, Medicinal Chemistry Group of the NESACS (2006-current), Alternate councilor, NESACS (2006-current), NESACS Government Relations Committee (2008).

Statement: For the last several years I had the honor of serving as chair of the Medicinal Chemistry Section of NESACS, where I organized a number of symposia that brought together academic and industrial scientists for lively discussions on Academic Drug Discovery, Outsourcing in Asia and Ion Channels. The exchange of ideas and initiation of partnerships that these symposia encouraged and nurtured is at the core of the spirit I would bring to the office of Chair-elect of NESACS. As Chair I would like to expand the amount of cross-functional activity in NESACS between the different NESACS groups (MCG, YCC, Continuing Education, Government Relations and Chemical Education); for example, local medicinal chemists of the MCG could be encouraged to support the Chemical Education group by making trips to local high schools for outreach. As Chair, I would also support an expansion in the number of "international" symposia that bring academic and industrial scientists based in Europe and Asia to NESACS events to share ideas and network. As Chair I would sponsor work-

shops on resume and cover letter writing and interview skills for NESACS members who had been affected by the economic downturn. Finally, I would proactively reach out to local scientists to increase membership and attendance at NESACS events and meetings. The NESACS is a vibrant, dynamic organization that I've served for the last several years as head of the medicinal chemistry group (MCG) and I would like to continue that service as chair-elect. Thank you for your consideration and I look forward to seeing you at local NESACS events in 2009!

Secretary

Michael Singer

Education: B.S., State University of New York at Stony Brook (1986); M.S., Brandeis University (1988); Ph.D., Brandeis University (1993)

Professional Experience: Post-Doctoral Research Associate, Organix Inc. 1991-1994; Senior Scientist, ArQule Inc. 1994-1996; Group Leader, Automated Combinatorial Synthesis, ArQule Inc. 1996-2001; Group Leader, Drug Discovery Research and Development, Sigma-Aldrich, Natick, 2001-2007; R&D Manager, Sigma Aldrich, Natick, 2008 - present

NESACS Service: Councilor-NESACS 1996-2001, 2005-present; Alternate Councilor - NESACS 2002-2004; Board of Directors NESACS 1993-present; Secretary-NESACS 1998-present; Medicinal Chemistry Group (MCG) 1991-present; MCG Treasurer (1992-1993), Program Chair (1994) Chair (1995-1996)

ACS Service: ACS Joint Board-Council Committee on Chemical Abstracts Service - Associate member 2004 - Member 2005-2007; Local Section Activities Committee - Associate Member 2007 - Member 2008 - present

Professional Recognition: Henry Hill Award - 2008

Statement: During my tenure as Secretary for the NESACS, I have worked consistently to increase the amount of knowledge communicated within the section. The current process of collection and distribution of written reports from NESACS officers and committee chairs have significantly

increased Board meeting efficiency. By having the actual reports of the many section committees in written form, there is an increase in the content and accuracy of the Board meeting minutes. To complete the circle, these enhanced meeting minutes are then promptly posted on our section website (www.nesacs.org) enabling our NESACS members to be up to date on all section activity.

One of my goals for 2009 in coordination with the NESACS Board of Directors is to maintain a running NESACS master calendar of events. As the various activities of the section are scheduled, the calendar of events will be updated. The goal of this NESACS calendar of events is to make available a long-range view of local section activities. It is my expectation that this NESACS calendar of events will be made available to all section members and maintained up to date on our section website (www.nesacs.org).

As with any volunteer organization, the organization is only as strong as the membership and those volunteer members that actively participate in the planning and execution of the various events. The strength of the NESACS lies in its membership. For the membership to be strong, communications is critical. With your support for another term as Secretary for the NESACS I will strive to increase the flow of communication between all facets of our section membership.

Trustee

Joseph A. Lima

Education: B.S., New Bedford Institute of Technology (1962); MBA, Babson College (1975)

Current Career Position: VP Technical and Operations for Houghton Chemical Corporation, Allston, MA.

NESACS Service: I've been a member of ACS since student affiliate days. My major involvements with the Northeastern Section have been with the Board of Publications for The Nucleus and currently as an NESACS Trustee and member of the Esselen Award Committee. Additionally, I've served on a number of ad hoc committees.

Statement: Our Section is fortunate

NESACS Election

Election of Candidates

In the interest of providing maximum information and expression of opinion by the candidates for election in 2009, the Nominating Committee has prepared this section of the NUCLEUS for mailing concurrently with the ballots. All candidates were asked to submit biographical material and, with the exception of committee member nominees, position statements. To attain uniformity of format, the biographical data have been rearranged, and, where the text exceeded the allotted space, abbreviated. The statements have been reproduced without change. An official ballot, along with a ballot envelope and return envelope have been provided. The election and balloting are being carried out in conformance with Article VIII of the Constitution of the Northeastern Section. The order of candidates for each office on the ballot will be determined by lot. Comments regarding the election may be addressed to the Nominating Committee Chair, Dr. Marietta Schwartz (address on p.3).

The ballot must be received by May 31, 2009. ◇

to have endowment funds available to support our many worthwhile activities. These activities benefit both our members and the "chemical community" in general. If re-elected as a Trustee, I will continue to work with the other Trustees to ensure our funds are invested conservatively, managed wisely and used responsibly. May I have your vote?

Peter C. Meltzer

Education: B.Sc. (Hons.) Univ. of the Witwatersrand, S. Africa. (1972); Ph.D. Univ. of the Witwatersrand, S. Africa, (1976).

Professional Experience: Lecturer and Teaching Assistant, Univ. of the Witwatersrand, S. Africa (1971-1976); Research Associate, Univ. of the Witwatersrand, (1976-1977); Research Associ-

ate, Massachusetts Institute of Technology (1977-1978); Group Leader, Senior Chemist, Research Associate, SISA Inc. (1978-1983); Vice-President of Research and Development, Director of Chemistry, SISA Inc. (1983-1986); President, Co-founder and member of the Board of Directors. Organix Inc. (1986-present).

NESACS Service: Member, American Chemical Society (1977 – present); Associate Editor, *The Nucleus*, (NESACS) (1981-1983); Chairman-Elect, Medicinal Chemistry Group, NESACS (1983); Chairman, ACS Symposium: “The Pharmaceutical Industry to the Turn of the Century”, (1983); Chairman, ACS Symposium: “Chemistry and Immunology,” (1984); Chairman, Medicinal Chemistry Group, NEACS (1985,1985); Member, Nominating Committee, NESACS (1987/9); Member, Long Range Planning Committee, NESACS (1990)

Honors: Johannesburg City Council Scholarship (1968-1971); Senior Bursar of the University of the Witwatersrand (1972); South African Council for Scientific and Industrial Research Scholarship (1972); University of the Witwatersrand Senate Research Grant (1975).

Statement: As president of a chemistry corporation I have gained skills and experience in financial management. As a trustee of the retirement and profit sharing funds of a small company, I have gained experience that will enable me to interact with the Section’s financial advisors, and manage the Section’s funds. I will work with the board and section members to aid them to achieve the goals that they have established for the Section.

Councilor/ Alternate Councilor

Edward J. Brush

Education: B.Sc., King’s College, PA (1978); Ph.D., Pennsylvania State University (1984).

Professional Experience: Postdoctoral Research Associate, University of Maryland (1984-88); Assistant Professor, Tufts University (1988-95); Kutztown University (1995-96); Clark

University Visiting Professor (1996-98); Associate Professor Bridgewater State College (1998-present); Chair (2006-present); co-coordinator Adrian Tinsley Program for Undergraduate Research (2000-2005); co-coordinator Center for Sustainability (2007-present).

Memberships: American Chemical Society member since 1976 (Chemical Education, Organic, Biochemistry, Environmental); Council on Undergraduate Research; American Association for the Advancement of Science; New England Association of Chemistry Teachers.

NESACS Service: Bridgewater State College ACS Student affiliate co-advisor (1999-present, Honorable mention awards 2001-2006, Green Chemistry affiliate 2003, 2005); co-organizer of the NESACS-sponsored Northeastern Undergraduate Environmental Research Symposium (2002-present).

Honors: Honors Program Outstanding Faculty Award (2005), James DiNardo Award for Excellence in Teaching (2004).

Statement: It is a privilege to be nominated to serve as NESACS Councilor. As a 31-year member of ACS I have focused my entire professional career on providing research experiences and other professional opportunities for undergraduate students, and would work to expand the opportunities currently offered through the northeastern section. I would like to see NESACS take a more active role in promoting green and sustainable chemistry in education, teaching and research, through increased involvement of and collaboration between the regional student affiliates, academic and industrial partners, and K-12 students and teachers. There are many challenges to overcome given our limited fiscal resources, but my experience at Bridgewater State College as co-founder and coordinator of both our Undergraduate Research Opportunities Program and Center for Sustainability, have put me in a good position to achieve these objectives. As councilor I look forward to the challenge of representing the interests and concerns of the students, educators, academic and industrial chemists of the Northeastern section.

Michaeline F. Chen

Education: Clarke College, B.A.; Boston College, M.S.

Experience: 1985 - 1997: US Army Research Laboratory - Materials Director, Chemist, Associate Primary Investigator. (Retired); 1998 - 2002: Revet/Microbac Laboratories, Inc., Consultant (Part time); 2001-Present: Wellesley College, Chem. Dept., Research Associate (Part time). Member of ACS since 1976

ACS Activities at the Northeastern Section: (1984 – Present) Member of the Board of Directors NESACS. (1987 – Present) Councilor of NESACS (except 2003: Alternate Councilor). (2001 – Present) Chair of the Membership Committee. (2007) Member of the Planning Committee for the ACS National Meeting in Boston. (1999 – 2000) Chair of International Chemistry Celebration for Y2K (NES). (1988 – 1998) Member of the Professional Relations Committee. (1998) Worked for National Meeting & Centennial Celebration in Boston. (1997) Recipient of Henry A. Hill Award. (1988 & 1995) Member of the Nominating Committee. (1982 – 1992) Served on and Chaired the Summerthing/Fallfest Committee. (1990) Member of the Organizing and Planning Committee for the ACS National Meeting in Boston, also served as Public Relations Chairperson. (1988) Chair of the Public Relations Committee. (1984 – 1987) Chair of the Hospitality Committee, incl. the IUPAC Meeting in Boston.

Activities at the National ACS:

(2000 – Present) Member of the Council Committee on Admission. (1998 – 1999) Associate Member of the Council Committee on Admission.

(1995 – 2006) Associate Member of the International Activities Committee.

(1994) Member of the Economic and Professional Affairs Committee. (1989 – 1993) Member of the Economic Status Committee. (1988) Associate member of the Economic Status Committee. (1987 -1988) Associate member of the Public Relations Committee.

Statement: I have a strong sense of enthusiasm for the activities of the Northeastern Section and for the American Chemical Society. Because I serve

on the Admissions at the National ACS, and am Chair of the Membership Committee of the Local Section, I am able to represent the local section at the national level in a unique manner. If elected, I would continue to broaden the Northeastern Section's influence on National ACS policy decisions, increase interactions between our Section and the National Society, and increase the involvement of the membership in its activities. If elected, I shall continue to devote my time and energy for the good of our members. I would truly be honored and grateful to receive your support and your vote so that I may continue to serve you as a Councilor.

Catherine E. Costello

Catherine E. Costello, Boston Univ. School of Medicine, is Prof. of Biochemistry, Biophysics and Chemistry, and the Founding Director of the BUSM Mass Spectrometry Resource and the BUSM Cardiovascular Proteomics Center. She received her AB degree (chemistry) from Emmanuel College and her MS and PhD degrees (organic chemistry) from Georgetown University. She was Associate Director of the MIT MS Resource (1975-1995). She currently chairs the NESACS Constitution and Bylaws Committee. She was a member of the NESACS Publications Committee (1988-1993) and its chair (1990, 1993) and has served five terms on the Nominating Committee and two on the Budget Committee. At the national level, she is a Councilor for the Northeastern Section (1989-present; Alt., 1986-8), has served as a member (1996-2005) and chair (2004-2005) of the International Activities Committee and is currently a member of the Ethics Committee and the IAC Subcommittee on Scientific Freedom. She has completed many tours for the ACS Speakers Bureau. She served as President of the American Society for Mass Spectrometry (2002-4), is presently Senior Vice President of the Human Proteome Organization, and a member of the Board of the Human Glycoproteomics Initiative and the US National Committee of IUPAC. She is a member of AAAS, FASEB and the Society for Glycobiology, and serves on NIH review panels and several editorial and advisory boards.

Her research interests are in the determination of the structures and functions of biopolymers, with particular emphasis on glycobiology, post-translational modifications of proteins and protein folding disorders. She is the author or coauthor of about 270 scientific papers.

Statement: I wish to continue to serve as a Councilor for the Northeastern Section in order to keep the interests of our members before the National ACS, to provide input to national policies based on my experience with educational institutions, research funding programs and national and international exchange of scientists and information, and to increase access of our members to the wide resources available to support their work and careers. Although our research often straddles a wide range of activities, it is important that the ACS remain a central feature in our professional lives and in those of our students and colleagues. I strongly support collaborations among academic institutions and between academia and industry and will continue to encourage interdisciplinary research and training and to highlight new opportunities for chemists in diverse areas of work and study, at all stages of their education and careers.

Mick Hurrey

Education: University of Central Florida, B.S., 1998; University of North Carolina – Chapel Hill, Ph.D., 2004

Professional Experience: Vertex Pharmaceuticals, Scientist II, Materials Discovery and Characterization, 2007-Present; Scientist I, Physical Sciences & Pharmaceutical Research, 2006-07; Scientist I, Analytical Development, 2004-05

Honors: Team VOCAP Awards (3) (2006-08); James T. Dobbins Fellowship (2003-04); RICHES Award of Excellence (2003); GAANN Fellowship (2002-03)

Service in ACS national offices: Task forces, member 2008-Present: Task force on Globalization (CEPA – 2008-Present); Electronic Dissemination of National Meeting Content (DAC/PM&R – 2008); Diversity Partners Program (PA&PR – 2008); Business Development and Management (BMGT) Division, 2006-Present: Pro-

gram Chair 2007-Present; Younger Chemists Committee (YCC), 2004-Present: Chair, 2007-Present; Strategic Planning Subcommittee Chair, 2005-07; YCC Liaison to Membership Affairs Committee, 2004-07; Joint Subcommittee on Diversity (JSD), 2007-Present.

Service in ACS offices: Member ACS since 1999. New England Section: champion 1st annual golf tournament; North Carolina Section: presenter NC State Fair, 2001-04; Member: American Chemical Society; ACS Divisions: Analytical Chemistry, Business Development and Management

Statement: As Chair of the national Younger Chemists Committee I have a unique sense of how the Society works. I have many active networks, with the Board of Directors, technical Divisions, and other Committees. I have served on multiple national taskforces designed to bring better services to the Society's Members. Serving as an officer for the BMGT Division has also given me a better prospective on the challenges facing technical Divisions and the effort necessary to produce top-notch programming. As an active national member of the ACS, I believe that it is important to remain focused on local section needs and concerns. Being a Younger Chemist, I find it equally important to express the viewpoints of chemists who are just starting in their careers. It is just as important, however, to represent areas of concern for Women Chemists, Senior Chemists, Chemist with Disabilities, or any chemist who wishes to express their opinion to the National ACS. I have been fortunate to serve my fellow chemists at the national level for five years and would like to continue in that role while expanding into new areas of the society. I enjoyed being active in my past local section and have been looking for an opportunity to serve NESACS. I believe that Councilor is one of the highest honors that can be bestowed on a local section member, as it gives a local community a chance to influence policy and concerns of the society at large. I would like to serve NESACS as a Councilor so that I could feel like I'm giving back to my fellow local chemists. I would like to implore all members of NESACS to contact me with their thoughts and wishes when it

comes to the Society so that when deciding on matters important to the local section, I will be able to represent everyone to the best of my abilities. Please consider me for Councilor so that I may be your voice at the national meeting.

Jerry P. Jasinski

Education and Honors: B.A., M.S.T., University of New Hampshire (1964, 1968); M.N.S., Worcester Polytechnic Institute (1968); Ph.D., University of Wyoming (1974); 1st Recipient of the Keene State College Award for Faculty Distinction in Research and Scholarship (2001).

Professional Experience: Keene State College: Assistant Professor (1978-83), Associate Professor (1983-89), Professor (1989-), Chair, Department of Chemistry, (1999-). University of Virginia: Post Doctoral Research Associate (1974-75). Los Alamos Scientific Laboratory: AWU Pre-Doctoral Research Associate (1973-74), High School Chemistry/Physics Teacher (1964-70, 1975-78). American Institute of Chemists (AIC-Board of Directors 1999-01; 2007-09, President Elect 2009): (New England Institute of Chemists, NEIC, Treasurer, 1988-). Over 200 papers in chemical research journals.

Research and Interests: Physical-Inorganic Chemistry; Synthesis and X-ray crystallography of laser dye molecules and transition metal thiosemicarbazones. Co-developer of a web-based tutorial entitled "Symmetry and Space Groups." Introduction of Process Oriented Guided Inquiry Learning (POGIL) techniques into the chemistry curriculum.

ACS Service: Member since 1970. Member of INOR division. NESACS: Nominating Committee (2000-01, 2007-08), Alternate Councilor (2007-2009), Norris Award Committee (2008-2010).

Memberships: American Crystallography Association (ACA), New England Institute of Chemists (NEIC), Council for Undergraduate Research (CUR), New England Association of Chemistry Teachers (NEACT).

Statement: Since joining the ACS in 1970, I have had only limited opportunity to serve while enjoying the many

benefits offered. My experience at the undergraduate level in both teaching and research should serve as a catalyst and refreshing viewpoint to the continued development of chemical education, one of this section's most important assets. I would hope to bring my expertise in this area to the section and be an advocate of programs that promote and bring excitement to science and chemistry to young people as well as recognize the achievements of both graduate and undergraduate students in the chemical sciences within the Northeastern Section of the American Chemical Society. I would be a positive spokesman for the continued development of educational programs for students at both the graduate and undergraduate level both locally and nationally and encourage further development of the student-mentor relationship.

Ira S. Krull

(No Information Submitted)

Patricia A. Mabrouk

Education: B.A. 1982 Wellesley; Ph.D. 1988 Massachusetts Institute of Technology

Professional Experience: NIH Postdoctoral Fellowship 1988-1990 Stanford University; Assistant Professor, Northeastern University (1990-1997); Associate Professor, Northeastern University (1997-2004); Professor, Northeastern University (2004-present)

ACS Service: Member since 1988. Associate member of ACS SEED National Committee (2003 – 2004); Associate member of Women Chemists Committee (2006-present); panelist for ANYL Kolthoff Awards (2004 – 2007); panelist for ANYL Giddings Award (2005-7); Chair of ANYL Education Committee (2008 – present)

NESACS Service: ACS SEED Coordinator for NESACS (1998-present); Member of the Theodore William Richards ACS Medal Award Committee (1999 – present); Chair of Theodore William Richards ACS Medal Award Committee (2000 – 2004); Councilor (2004-present); Chair-Elect (2005); Chair (2006); Past-Chair (2007)

Memberships, Honors: NSF

CAREER Award (1996-2001); CASE Massachusetts Professor of the Year (2003); Northeastern University Excellence in Teaching Award (2004); Sigma Xi; AAAS; NSTA; CUR; NSTA; NEACT

Statement: First, let me express my sincere thanks to all of you! I am extremely grateful for the opportunities I have had as your representative on the Council over the past four years. I deeply value the opportunity this position has afforded me to "give something back" and the doors it has opened for me on so many levels. As one of your elected councilors, I have had the opportunity to serve on a national level with ACS SEED Committee, with the Women Chemists Committee and its advocacy subcommittee, and with the Analytical Division and its education committee. As a member of the WCC committee I had the opportunity to organize a very successful symposium "Sisters in Science." Currently I am working on the development of a generic set of nomination materials for individuals interested in nominating women members for ACS National Awards. As Chair of the ANYL Education Committee I oversee the I.M. Kolthoff Travel Grant for undergraduates. Even though I have served four years I still feel that I am a relative "newbie" on Council. I would very much like to continue to serve you and ACS in this capacity. Of course I can only do this with your support so I am asking for your support, specifically, for your vote for the position of Councilor. Many thanks!

Norton P. Peet

Education: B.A. (1966); Ph.D. University of Nebraska (1970); Postdoctoral Research Associate, Massachusetts Institute of Technology (1970-1971); Postdoctoral Associate, University of South Carolina (1971-1972)

Experience: Senior Research Chemist/Research Specialist (1972-1979) Dow Chemical; Research Leader/Group Leader (1979-1984) Merrell Dow Research Institute; Senior Research Scientist/Director (1991-1996) Marion Merrell Dow; Head Medicinal Chemistry/Distinguished Scientist (1996-1998) Hoechst Marion Roussell

and (1998-2000) Aventis; Vice President of Discovery Alliances (2000-2002) ArQule; CEO, President and Founder (2002-2005) Aurigene Discovery Technologies; Director of Chemistry (2005-present) Microbiotix; International R&D Consultant (2005-present).

Northeastern Section ACS Activities: Member of the ACS since 1967; Chaired and co-organized the following Symposia for the Medicinal Chemistry Section of NESACS: Natural Product Scaffolds as Starting Points for Drug Discovery (May 27, 2004) 852nd Meeting; New Uses for Old Drugs (September 9, 2004) 853rd Meeting; Kinase Targets (December 9th, 2004) 856th Meeting; New Targets for Type II Diabetes (May 19th, 2005) 861st Meeting; New Targets for Type II Diabetes (Part II) (December 8th, 2005) 865th Meeting; New Trends in Oncology (May 18th, 2006) 868th Meeting; New Trends in Oncology (Part II) (September 21, 2006) 871st Meeting; Lead Optimization Strategies (May 17th, 2007) 879th Meeting; Signal Transduction Targets and Drug Discovery (December 12th, 2007) 883rd Meeting; New Developments in Anti-infective Research (September 11, 2008) 889th Meeting; and presented Outsourcing: The Global Picture (May 13, 2008) 886th Meeting.

Statement. I have co-organized and chaired ten symposia in the last four years on topics of high current interest to the medicinal chemists in our section. We have significantly grown the audience for these symposia and the meetings are very well-attended. As Councilor of our Northeastern Section I will continue to be very active with the Medicinal Chemistry Section Meetings and will continue to orchestrate meetings with international speakers and pertinent topics for our constituents from the biotechnology and pharmaceutical sectors and the surrounding academic community.

As a Councilor for the Northeast Section of the American Chemical Society, I will attend our National ACS Meetings, represent our Section at these national meetings, and cast my votes, as necessary, to represent our members and to ensure that our governing body is working in the best interests of our section.

My career path has afforded me

insights into the various sectors of our scientific community, eg, big pharma, biotechnology, academia and government. At Aventis, as Head of Medicinal Chemistry and Distinguished Scientist, I gained an understanding of the challenges that big pharma faces. As both Vice President of Discovery Technology at ArQule and as the CEO of Aurigene Discovery Technologies, I built integrated research organizations and therefore have acquired an understanding of the challenges faced by small and mid-size companies. I have designed and taught courses in five different academic settings, so have been exposed to the great responsibilities that professors face in our institutions of higher learning. As an advisor for 12 years to the annual IBC Boston Drug Discovery Technology meetings, I have formally introduced and become acquainted with our last three FDA Commissioners. These experiences have given me a keen awareness of what is required for different scientific organizations to function efficiently and effectively. It is this experience that I bring to the position of NESACS Councilor.

Dorothy J. Phillips

Education: Vanderbilt University, B.A., 1967; University of Cincinnati, Ph.D., 1974.

Experience: (for past 10 years): Waters Corporation, 1984 to date; Director, Strategic Marketing, 2006; Director, Clinical Marketing, 2004-05; Director New Business Development, 2003-04; Director, Strategic Program Management, 2000-02; Brand Manager, 1997-99.

Honors: First recipient of the Waters Leadership Award for Outstanding Contributions to Waters and Waters' community, 2008; Santa Clara Valley Section Shirley B. Radding Award, 2008; Vanderbilt University Dr. Dorothy Wingfield Phillips Award for Leadership, first presentation to a graduating senior in 2007; ACS Northeastern Section Henry A. Hill Award, 2006; Unsung Heroine Award, Vanderbilt University, 2006; Nashville Section of ACS Salute to Excellence Award, 2004; Honored by TTT Mentor Program of Cambridge, MA, "Minority Role Models in Science, Mathematics, Technology and Engineer-

ing", 2004-; Sigma Xi; Distinguished Alumni, University of Cincinnati, awarded by both McMickens College of Arts and Sciences and Center for Women Studies; Waters' Manager Award for Innovation, 1987-88.

Service in ACS National Offices: Division of Analytical Chemistry, Program Chair, 2008-09, Chair-elect, 2007-08; Council Policy Committee, 2008-2010; Committee on Committees, 2001-06, Secretary, 2003-04, Industrial Pipeline Sub-Committee, Chair, 2005-06; Committee on Divisional Activities, 2007-08; Committee on International Activities, Committee Associate, 1998; Committee on Membership Affairs, 1997-2000, Committee Associate, 1996.

Service in NESACS Offices: Member ACS since 1973. *Northeastern Section:* Councilor, 1995-09; Chair, 1993; Chair-Elect and Program Chair, 1992; Project SEED, Committee Chair, 1994-95; Nominating Committee, Chair, 1994; Centennial Celebration, Co-chair, 1998; Fundraising Committee, Chair, 2004-08.

Member: The American Society of Mass Spectrometry; American Association of Pharmaceutical Scientists (AAPS); National Organization for the Professional Advancement of Black Chemists and Chemical Engineers; ACS Divisions: Agrochemicals; Analytical Chemistry; Biological Chemistry and Business Development and Management.

Related Activities: Candidate, Director-at-Large for the ACS Board, 2006 and for Director District I, 2003; Established Waters' sponsorship of the Division of Analytical Chemistry Distinguished Service Award; Spearheaded Waters sponsorship of the Frank H. Field and Joe L. Franklin Award for Outstanding Achievements in Mass Spectrometry and the ACS Award in Separation Science and Technology; Delegate with the People to People Ambassador Program to China in 1990 with group of scientists for technology transfer; Member of AAPS Delegation to China, 2004; Invited speaker at the Sixth Annual Congress of International Drug Discovery Science and Technology in Beijing, China, 2008; Partners in Mathematics and Science Committee of Alpha Kappa Alpha Sorority, Incorporated

rated; coordinating the Northeastern Section's sponsorship of programs that focus on increasing the math and science interest of minority students in greater Boston; Mentor for the New England Board of Higher Education (NEBHE) Science Network for students who are traditionally underrepresented in Science, Technology, Engineering and Mathematics (STEM); approximately 70 publications and numerous presentations in the field of analytical chemistry with a focus on HPLC.

Statement: I thank the members of the Northeastern Section of the American Chemical Society (NESACS) for giving me the opportunity to serve as your Councilor. I fully accept this responsibility. I represented our Section at all ACS National meetings since I became a NESACS Councilor. I want to continue to serve you. This role gives me the opportunity to serve both our local section and the broader Society.

Being a Councilor enabled my election to the Society Council Policy Committee (CPC) in 2007 for a three year term. As a member of CPC I am involved in activities ranging from planning the agenda for the Council meeting to conducting long-range planning for the Society.

My involvement in the Society also includes serving as Program Chair for the Division of Analytical Chemistry. My work on the Division's technical programs for Pittcon 2009, as well as the Fall and Spring 2009 ACS Meetings is strengthening my skills in programming.

Recently I attended the ACS Leadership Institute where I took two courses in the new ACS Leadership Development System (acs.org/leader-development). These series of courses are designed to motivate your involvement in ACS and your career. They also enhance the effectiveness and the leadership skills of individual members, local sections and technical divisions. One of my goals will be to work with ACS to have courses from this system offered within our Section.

I have a vision for NESACS. Our Section contains many premier universities and a large number of students majoring in Chemistry and Chemical Engineering. In June 2009 student affili-

ates become student members. An exciting time for the Northeastern Section! I envision a section where joint programming between student chapters and Section adds to the present and impact of science in the northeast United States and internationally. I will use the contacts and experience as a Councilor and my skill in programming to bring my vision to reality. NESACS and its student members will also help to fulfill the vision of ACS to improve people's lives through the transforming power of Chemistry.

I ask you to vote for me, Dorothy Phillips, to be a Councilor from 2010 to 2012, giving the Northeastern Section of ACS a representative in Society governance and a technical division as well as an advocate for embracing the potential from our new student members.

Raj (SB) Rajur

Education: Ph.D. in Organic/Medicinal Chemistry, Karnataka University Dharwad, (1988); Postdoctoral Fellow, University of Texas Southwestern Medical Center Dallas; (1988-1990) Group Leader, Boston College, (Chestnut Hill, MA), (1990-1992); Instructor, Center for Engineering in Medicine, Massachusetts General Hospital, Harvard Medical school (1992-1996).

Professional Experience: Instructor, Shriners Burns Institute (Boston, MA), Instructor, Massachusetts General Hospital, Harvard Medical School, Adjunct Assistant Professor, Northeastern University (Boston), Group Leader Millipore Corporation (Bedford, MA), Project Leader, ArQule, Inc. (Woburn, MA). Reviewer, Journal of Pharmaceutical Sciences (ACS journal), Recipient of research grants from University of Texas Southwestern Medical Center Dallas. Presently, Founder, Chairman and CEO CreaGen Biosciences, Inc. (Woburn, MA, Founded 2002)

ACS/NESACS Service: Alternate Councilor, NESACS (2005-present); Program Chair, Medicinal Chemistry Group, NESACS (2003-present). NESACS Nominating Committee (2008), Organizing committee, NESACS, IUPAC and RSC-US sponsored Advances in Chemical Sciences Symposium series (2007-present).

Membership/Honors: ACS Organic

Chemistry Division, ACS Medicinal Chemistry Division and AAAS. Member Indian Chemical Society. Listed in American Men and Women of Science, Who's Who in Science and Engineering. Involved in many Indian Cultural and community organization as advisory board. Invited speaker at several international conferences.

Position Statement: In my tenure as program coordinator and then program chair for the NESACS medicinal chemistry division, my mission has been to bring quality drug discovery science to our May, September and December symposia. Some of the recent topics on which we have focused are Kinase Targets, New Targets for Type-2 Diabetes part I and Part II, New trends in Oncology part I and Part II, Signal Transduction Targets and Drug Discovery, New Developments in Anti-Infective Research, Lead Optimization strategies, New Technologies for Drug Discovery and Emerging Opportunities for Drug Discovery in Asia. The purpose of bringing good pharmaceutical science to our very active local section audiences is a multipurpose one. Our territory now houses the biotech hub of the world, and has become a place where every multinational pharmaceutical company wants to partner, headquarter or establish a center of excellence. We, as a section, need to be exposed to a cross section of the science that is ongoing in the industry. Our meetings are venues for the exchange of ideas between industrial and academic participants. And, very importantly, our meetings are places where students from our many prestigious colleges and universities can network with professionals and learn from the symposia topics featuring cutting edge science.

As an Alternate councilor, I have regularly attended the NESACS monthly meetings and contributed several new ideas and inputs. I have regularly represented the national ACS meetings and participated in governance meeting.

If elected as a councilor, I will continue to support and encourage NESACS meetings that bring topnotch science to our audiences of academic and industrial professionals and students. I ask for your vote and thank you for your support.

Marietta Schwartz

Education: 1983-1988: University of Wisconsin - Madison. Ph.D. Degree in Organic Chemistry was conferred in August, 1988. Dissertation title: "Synthesis and Study of Two Tribridged Cyclophanes". Research Director: Prof. Howard W. Whitlock, Jr.; 1979-1983: College of St. Benedict, St. Joseph, Minnesota. B.A. in Chemistry was conferred in May, 1983.

Professional Experience: January 2004-September 2007: University Director of Undergraduate Studies, University of Massachusetts Boston; 1994-Present: Associate Professor of Chemistry, UMass Boston; 1988-1994: Assistant Professor of Chemistry, UMass Boston; 1983-1988: Research Assistant/Teaching Assistant, University of Wisconsin Madison; 1982-1983: Undergraduate research, Department of Chemistry, College of St. Benedict, St. Joseph, Minnesota

Research: My original research area is physical organic chemistry. But over the past ten years or so, I have spent more and more time in the areas of chemical education and the use of instructional technology. I also spent my most recent sabbatical acting as an elementary and middle-school science teacher, which definitely put my creative and organizational skills to the test. My current projects include developing a science-focused course for our University Honors Program and developing a nonmajors online environmental chemistry course.

ACS Service: Member of ACS since 1980 (Student Affiliate, then Member). Hospitality Volunteer, 1989 National ACS Meeting, Boston.

NESACS Service: Volunteered for the Education Committee for a number of years. Sole coordinator in charge of recruiting and assigning student workers for the ACS National Meeting in Boston, August 1998 and again in August 2002. Secretary, Board of Publications, Northeastern Section of the American Chemical Society, October 1999 - December 2000; calendar year 2002. Chair, Board of Publications, Northeastern Section of the American Chemical Society, calendar year 2001 and 2003. Chair of the Norris Award

Committee, 2006. NESACS Chair-Elect/Program Chair, 2007. NESACS Chair, 2008. Currently serving as Immediate Past Chair of NESACS.

Memberships, Honors: American Chemical Society (Organic Division, Division of Chemical Education, Northeastern Section), Iota Sigma Pi national honor society (Member-At-Large), Association for Women in Science

Statement: The role of the councilors is an important one to the section, as they represent the section to the larger society and communicate national decisions back to the local section. Policy and communication are two areas that I dealt with on a daily basis in my administrative position and continue to use in my departmental work, and I would be honored to have the opportunity to utilize those skills to serve NESACS.

Ruth Tanner

Education: B.S. Purdue University, (1960); PhD (Organic Chemistry) University of Cincinnati (1965)

Professional Experience: Research Fellow, Duke University (C.R. Hauser)(1965); Massachusetts State College at Lowell, Chair, Chemistry Department (1966-1974); University of Massachusetts Lowell, Professor (1975-2007); President of the University Faculty (1975); Representative for the Joint Council on Food and Agricultural Sciences, Joint Council on Food and Agricultural Sciences of USDA; (1979-1985); Visiting Scientist, MIT (1978-1980); Director of Women in Science and Engineering (WISE) Program (1996 - 2005); Professor Emeritus (2007 - Present)

NESACS Service: Member of the NESACS Board of Directors (1996 - Present); Chair of the Education Committee (1996-Present); Chair of *Connections to Chemistry* program; On-Site Coordinator, ACS TV Satellite Seminar Series: *Teaching Chemistry*, National Chemistry Week, UMass Lowell (1996 - 1999); Committee Member, NESACS-JCF/GDCh Chemistry Student Exchange Program to Germany (2001 - 2009); Co-Chair for High School/College Interface Symposium, CHED Division, 2007 National ACS meeting

Relevant Memberships: ACS Divisions: Organic Chemistry, Chemical Education; New England Association of Chemistry Teachers; American Association for the Advancement of Science; American Association of University Professors.

Honors: Department of Chemistry Teaching Award (1998); Council on Diversity and Pluralism Award (1999); The Boston Club Advancement Award for WISE Program (2000); Henry A. Hill Memorial Award (2007)

Statement: I am honored to be nominated to the position of Councilor for the Northeastern Section. I have had the privilege of serving the Northeastern Section on the Board of Directors since 1996 when I became the Chair of the Education Committee. In this position, I have had the opportunity to promote and develop programs for undergraduates and to develop programs that promote interactions between high schools and colleges. The position of Councilor would afford me the opportunity to represent the concerns of the section at local and national meetings and to promote the development of accessible avenues in CHED for high school students, high school teachers, and undergraduates at the national level.

Amy E. Tapper

Education: Ph.D. Chemistry, Boston University 2002; B.S. Chemistry, Boston College 1992

Professional Experience: Ferrokin BioSciences, Vice President CMC and Preclinical (2008-present); Momenta Pharmaceuticals, Principal Scientist (2007); Peptimmune, Associate Director (2004-2007); Genzyme Drug Discovery and Development, Senior Scientist (2001-2004); Wyeth-Ayerst Pharmaceuticals, (1995); Aquatec, Inc. (1994-95)

ACS Service: Member (1995 - present); Councilor (2003-06, 2007-2009); International Activities Committee, Associate (2004-2007); Boston National ACS Meeting Committee, (2002, 2007); Committee on Economic and Professional Affairs, Associate (2008-present); Recipient of a 2002 ACS YCC Leadership Development Award

NESACS Service: Chair-elect 2004, Chair 2005, Immediate Past Chair 2006; Co-Chair NESACS Golf Tournament

(2005-2009); Chair Fundraising Committee (2009); Younger Chemists Committee (NESACS/YCC): Founding member, Co-chair (1999), Chair (2000-02), Co-chair (2003); Chair Career Development Committee, Chair Social Committee, (1999-2003); Coordinator of YCC Career Workshops (2001-2003); Northeast Student Chemistry Research Conference (NSCRC) Committee: Founding member, Co-chair and Speakers Officer (1999-2000); Chair 2001; Co-chair 2002. Member of the steering committee for the exchange initiative between NESACS and the GDCh (2000-2006); YCC position on the NESACS board (2000-03); Nominating Committee (2001, 2008); Director-at-Large (2002); Corporate Affiliates Committee (2003). YCC ChemLuminary award received in 2000, 2001, 2002, 2003, 2004

Other Related Professional Experience/Service: Boston University Younger Chemists Committee: Founder and President (1999-2000); Chair, Career Development Committee (1999-2001); Co-chair, Social Committee (1999-2001); Member of the Graduate Student Organization of Boston University (1998-99); Student member of the Boston University Chemistry Graduate Affairs Committee (2000-01)

Statement: One of the roles of a Councilor is to represent the Section at National meetings. Over the past three years during my chair term, I believe that I have gained a much greater understanding of the strengths and needs of our Section. I continue to feel strongly that for the future of our local section, it is imperative that we have younger chemists active on committees and the NESACS board. Younger chemists can learn from the experience of our members and bring new ideas to the section. We need to increase the participation of younger chemists both from academia and industry as well as increase our industrial participation as a whole. As a Councilor, one is encouraged to interact with the members of our local section as well as members of our National Society. This enables the exchange of ideas for networking and programming for the betterment of our Section. I believe that my experience with the Section makes me an appropriate candidate for Councilor.

Gary R. Weisman

Education: Primary and secondary education in public schools, Mason, Ohio; B.S. in Chemistry with Distinction, University of Kentucky, 1971 (research mentor: Robert D. Guthrie); Ph.D. Organic Chemistry, University of Wisconsin-Madison, 1976 (research mentor: Stephen F. Nelsen).

Professional Experience: Post-doctoral, University of California, Los Angeles, 1976-77 (research mentor: Donald J. Cram); Faculty member of the Department of Chemistry, University of New Hampshire since 1977, Professor of Chemistry since 1994; Visiting Associate Professor, University of Wisconsin, 1986; Visiting Fellow, University of Bristol, England, 1987 and 1998; Visiting Professor, Australian National University, 2005; Visiting Professor, University of Melbourne, Australia, 2005.

Research Interests and Areas of Expertise: Physical organic chemistry; Synthetic organic chemistry; Synthesis, reactions, special properties and coordination chemistry of amines and polyamines and derivatives; Ligand design and synthesis; Biomedical applications of coordination complexes; Supramolecular chemistry; Conformational analysis; Use of NMR in structural and conformational analysis of organic and metallo-organic compounds.

ACS Service: Co-Program Chair of NERM 2001, the 30th Northeast Regional Meeting of the American Chemical Society, Durham, NH

NESACS Service: Director-at-Large, NESACS, 2002-present; Richards Medal Committee, 2004-2007 (Chair 2006-2007).

Relevant Memberships, Etc.: ACS Member since 1970; Sigma Xi - The Scientific Research Society of North America; International Society of Heterocyclic Chemistry; Reviews Editor, *Journal of Physical Organic Chemistry*, 2006-present.

Honors: 1976-present; Excellence in Teaching Award, College of Engineering and Physical Sciences, University of New Hampshire, 1995; Wilshire Fellow, University of Melbourne, Australia, June-Aug, 2002; Elected Vice-Chair (2003) and Chair (2005), Gordon Research Conference on Physical

Organic Chemistry; Gloria G. and Robert E. Lyle Professorship, Department of Chemistry, University of New Hampshire, 2005-2009.

Position Statement: I would be pleased to serve as Councilor of the NESACS if the members choose that I do so. I would do my best to represent the views of the members of the NESACS and to participate in an informed manner in the Society's business at national meetings.

Director-at-Large

James E. Phillips

Education: Tennessee State University, B.S., 1968; University of Cincinnati, M.S., 1972.

Professional Positions (for past 10 years): Waters Corporation, 1986 to date; Sr. Support Engineer

Service in ACS Offices: 11-year Member ACS. Northeastern Section: Member and Photographer

Member: ACS Divisions: Medicinal, Analytical Chemistry, Waters' booth staff at ACS National Meetings

Related Activities: Mentor for the New England Board of Higher Education (NEBHE) Science Network for students who are traditionally underrepresented in Science, Technology, Engineering and Mathematics (STEM); Lovewell Farm for Autistic Young Adults / Board Member

Statement: I am honored to be running for Director-at-Large for the Northeastern Section of ACS (NESACS). I hope to make a contribution in this position and be effective in helping the local section. I look forward to working with members who have been in the Section for a long time. I anticipate growing in this Board position and helping NESACS achieve its goals. My frequent attendance at NESACS meetings leads me to desire that its programs would be relevant to more scientists in the area.

Alfred Viola

Education: BA, MA, Johns Hopkins University; Ph.D., University of Maryland.

Professional Experience: Boston University, Research Associate, 1955-57; Northeastern University, 1957-62

Asst. Prof., 1963-68 Assoc. Prof., Professor 1968-97, Prof. Emeritus 1997-present; Visiting Professor University of Munich, Germany, 1977, and Monash University, Melbourne, Australia, 1984; Visiting Scholar, Wellesley College, 1992-present.

Northeastern Section: Alternate Councilor 1963-68, Councilor 1986-88, Alternate Councilor 1990-97, Councilor 1998-2000, Alternate Councilor 2001-present; Norris Award Selection Committee 1979-86 (Chair 1981 and 1985); Continuing Education Committee 1989-present, (Co-Chair 1989, Chair 1990-present); Nominating Committee 1998.

Statement: I was honored to receive the Henry A. Hill Award in 1996 for Distinguished Service to the Northeastern Section, but that does not entitle me to rest on my laurels. As Chair of the Continuing Education Committee I have been responsible for bringing National ACS Short Courses to the Section at a fraction of the tuition costs normally associated with these programs. Many of the cutting edge topics covered in such courses were not in any curriculum for Chemists graduating as recently as five years ago. I firmly believe this to be a vital activity which the Section must undertake to provide our membership the opportunity to stay abreast of the ever evolving advances and changes in the world of Chemistry.

In a different vein, I firmly believe that the problems facing the chemical profession, and its practitioners, are more numerous and profound than at any previous time in the history of the science. But so too are the opportunities for Chemistry to contribute to the health and welfare of society as a whole. We must do more to educate our political leadership whose scientifically uninformed decisions often hinder scientific progress in this nation. We also must address the rampant scientific illiteracy within the public at large. There is need for far greater understanding of the truths and misconceptions which abound about the world of Chemistry. The world of advertising is rampant with misstatements regarding chemicals, or lack thereof, in individual products. Chemistry has long been a positive force in the welfare of society but the general public now perceives it other-

wise. I would like to see the A.C.S. address this issue much more forcefully.

I would appreciate your vote to provide me the opportunity to continue my activities on behalf of this Section and to represent these views within the Northeastern Section.

Nominating Committee

Richard C. ("Chris") Moreton

Education: B.Pharm., University of Nottingham, UK (1971); M.Sc., University of Strathclyde, UK (1987), Ph.D., University of Wales, College of Cardiff, UK (1992).

Professional Experience: Pharmacy Intern, Torbay Hospital, Torquay, UK (1971-1972), Pharmacy Intern, Pharmacist, then Chief Pharmacist, Harker Stagg, Ltd., London, UK (1972-1973), Senior Research Assistant, Staff Scientist and then Senior Scientist, Pfizer Central Research, Sandwich, UK (1973-1980), Manager, Sterling-Winthrop Research Centre, Alnwick, UK (1981-1984), Sektions Chef, ACO Läkemedel AB, Solna, Sweden (1984-1986), Technical Services Manager, Penwest Pharmaceuticals, Reigate, UK (1992-1995), Technical Services Manager, Director QA, Senior Director Technical Services, Penwest Pharmaceuticals, Patterson, NY (1995-2001), Vice President Research and Development, Genpharm Inc., Etobicoke, ON (2001-2002), Vice President Pharmaceutical Sciences, Idenix Pharmaceuticals, Cambridge, MA (2002-2007), Vice President Pharmaceutical Sciences, FinnBrit Consulting, Waltham, MA (2007-present).

ACS Service: Member since 1997

NESACS Service: Member Government Relations Committee (2008-present)

Memberships: Royal Pharmaceutical Society of Great Britain (RPSGB), Institute of Packaging, UK, American Association of Pharmaceutical Scientists (AAPS), American Chemical Society (ACS), American Association for the Advancement of Science (AAAS), International Society of Pharmaceutical Engineers (ISPE), European Federation of Pharmaceutical Scientists (EUFEPS), Academy of Pharmaceutical Sciences of Great Britain (APSGB), Royal Society

of Chemistry, UK (RSC), Massachusetts Academy of Sciences (MAS).

Other activities: Past Chair International Pharmaceutical Excipients Council of the Americas (IPEC-Americas), Vice Chair USP Expert Committee EM2, Massachusetts Middle School State Science Fair Judge.

Michael P. Filosa

Education: B. Sc., Massachusetts Institute of Technology (1974), Ph.D., Harvard University, (1980).

Experience: Polaroid Corporation (1979-2005); Scientist, Senior Scientist, Group Leader, Senior Manager of Chemistry. (2005-present); ZINK Imaging, Inc.; Senior Manager of Chemistry.

NESACS Service: ACS Member since 1976. Organic Division Member. Alternate Councilor (1997-2000; 2005-2008); Councilor (2009-2011) Editor of the Nucleus (2005-present). Local Organizing Committee for the 2007 Boston ACS National Meeting.

Statement: The nominating committee is a critical function of the local section. I believe it is a major way to involve new people in governance of NESACS and its awards and programs. If elected to this position I look forward to helping broaden the selection of candidates for future elections. Thank you for considering my candidacy.

Ralph T. Scannell

Education: B.S., 1973, Boston State College (Major: Biology and Minor: Chemistry); M.S., 1978 University of Lowell (Chemistry); Ph.D., 1983, Brandeis University (Organic Chemistry)

Professional Experience: Postdoctoral Research Associate, University of Virginia (1983-86); Senior Medicinal Chemist (1987-1990), A.H. Robins; Senior Research and Development Chemist (1990-1992), Ethyl Corporation; Principal Scientist (1992-1994), Associate Director of Medicinal Chemistry (1994-1996), Director of Medicinal Chemistry (1996-1998), Senior Director of Medicinal Chemistry (1998), CytoMed, Inc.; Senior Director of Chemistry (1998-2005), UCB Research, Inc.; Head of Chemistry (2007), Vice President of Chemistry (2007-2008), Amulet Pharmaceuticals; Adjunct Asso-

ciate Professor, MS Program in Drug Discovery and Development, Massachusetts College of Pharmacy and Health Sciences (2006-present)

ACS Service: Member since 1976; Organic and Medicinal Chemistry Division, member

NESACS Service: Vice Chair/Programs, 2006; Director-at-Large, 2009-2011

Memberships, Honors: Science Advisory Board Member, University of Massachusetts in Boston; Boston Area Group for Informatics and Modeling, Inflammation Research Association; Listed in Who's Who in Science and Engineering

Esselen Award Committee

Shainaz M. Landge

Education: Ph. D. Organic Chemistry, University of Massachusetts, Boston (2004-2008); Research Advisor: Professor Béla Török; M. S. Organic Chemistry, University of Pune, India. (2000); B.S. Chemistry, University of Pune, India. (1998)

Professional Experience: Post-Doctoral Research Associate. Dartmouth College, Hanover, NH (Jan 2009-present); Research Advisor: Professor Ivan Aprahamian; Project Assistant Catalysis Division, National Chemical Lab., India. (Jan 2002 – Dec 2003); Research Advisor: Dr. A. P. Singh; Research Assistant Specs & Biospecs, (Risjwik, The Netherlands), India (June 2000 – Sep 2001) Assisted by Dr. Rajender Dahiya in screening organic compounds and building blocks.

Awards & Honors: 2008 – M. J. Collins Award for Outstanding Young Innovator in Microwave Chemistry at 236th ACS National meeting, Philadelphia; 2008 – Campus Representative for the Chemistry Department at Northeastern Section Younger Chemists Committee (NSYCC), Boston; 2008 – Masticola, Outstanding Graduate Student Award, UMass, Boston; 2006-2008 – President of the Chemistry Club at University of Massachusetts, Boston; 2006 – Masticola, Best Graduate Student Award, UMass, Boston; 1999 – University Representative (Science division) for Garware College, India; 1997-1998 – College Representative for

ACS College, Akurdi, Pune, India; 1996, 1997, 1998 – “First in Class” Award (College and Department Level), India.

Professional Society Membership: American Chemical Society, member since 2006.

Howard R. Mayne

Education: B.Sc. ('74), M.Sc. ('75), Ph. D. ('77), University of Manchester, UK

Experience: Postdoctoral, Max-Planck-Institut für Strömungsforschung, Göttingen, Germany ('77-'79); Research Associate, University of Toronto ('79-'83); Assistant Professor. Eastern Michigan University ('83-'85); Assistant Prof; UNH ('85-'90); Assoc. Prof. ('90-'94); Professor ('94-date); Chair ('98-'04).

Visiting Positions: UC Santa Barbara; Northwestern U.

Research: Physical Chemistry, Chemical Physics. Atmospheric Chemistry. Gas phase reaction dynamics; gas-surface interactions; nanotechnology; Over seventy papers in peer-reviewed journals.

Honors: UNH Outstanding Faculty Award (1990); Outstanding Teacher Award; UNH College of Engineering and Physical Sciences (1990); Ronald T. Pflaum Outstanding Chapter Advisor Award, Alpha Chi Sigma (2008)

Memberships: ACS, American Physical Society, Council for Chemical Research, Alpha Chi Sigma

Previous ACS Service: Co-chair, Local Committee, ACS National Historic Chemical Landmark, UNH (1999); General Chair, Northeast Regional Meeting (NERM 2001); Chair, NERM Steering Committee (2001-2003); NESACS National Meeting Committee (2002), NESACS Alternate Councilor (2002-2006); Norris Award Committee (2003-2006, Chair 2005)

Statement: I have been closely involved with NESACS since 1999. I have tried to make the chemists in New Hampshire a more integral part of the organization. I co-chaired the committee that dedicated Conant Hall on the University of New Hampshire campus as an ACS National Historic Chemical Landmark in 1999. I chaired the 2001 Northeast Regional Meeting (NERM) in New Hampshire. If elected, I will work to

keep the New Hampshire constituency a vital one, and one that continues to contribute towards the work and strength of the Section.

Anna W. Sromek

Education: BS in Chemistry, University of Chicago, 1996; PhD in Organic Chemistry, University of Illinois at Chicago, 2005.

Professional Experience: Associate Chemist, Technical Coatings, 1996-1998; teaching assistant, 1998-2001; postdoctoral researcher, University of Illinois at Chicago, 2005-2006; chemist, JCL Bioassay, 2006-2008; NIDA Research Fellow, Alcohol and Drug Abuse Research Center, McLean Hospital, Harvard Medical School, 2008-present.

ACS Service: Member since 1997; currently member of Organic Division, Medicinal Chemistry Division, and Northeast Section.

NESACS Service: New member as of 2009.

Richards Medal Committee

Ira S. Krull

(No information submitted)

Patricia A. Mabrouk

Education: B.A. 1982 Wellesley; Ph.D. 1988 Massachusetts Institute of Technology

Professional Experience: NIH Postdoctoral Fellowship 1988-1990 Stanford University; Assistant Professor, Northeastern University (1990-1997); Associate Professor, Northeastern University (1997-2004); Professor, Northeastern University (2004-present)

ACS Service: Member since 1988. Associate member of ACS SEED National Committee (2003 – 2004); Associate member of Women Chemists Committee (2006-present); panelist for ANYL Kolthoff Awards (2004 – 2007); panelist for ANYL Giddings Award (2005-7); Chair of ANYL Education Committee (2008 – present)

NESACS Service: ACS SEED Coordinator for NESACS (1998-present); Member of the Theodore William Richards ACS Medal Award Committee

BUSINESS DIRECTORY

(1999 – present); Chair of Theodore William Richards ACS Medal Award Committee (2000 – 2004); Councilor (2004-present); Chair-Elect (2005); Chair (2006); Past-Chair (2007)

Memberships, Honors: NSF CAREER Award (1996-2001); CASE Massachusetts Professor of the Year (2003); Northeastern University Excellence in Teaching Award (2004); Sigma Xi; AAAS; NSTA; CUR; NSTA; NEACT

Jeffrey I. Steinfeld

Emeritus Professor of Chemistry, Massachusetts Institute of Technology, Cambridge, Mass. 02139. B.S. in Chemistry, M.I.T., 1962; Ph.D. in physical chemistry, Harvard University, 1965. N.S.F. Postdoctoral Fellowship with the late Lord George Porter, University of Sheffield (U.K.) 1965-66; joined the M.I.T. Chemistry Department in 1966.

Research specialties include molecular spectroscopy, molecular energy transfer, and laser applications to chemistry, including optical methods for remote sensing and atmospheric monitoring. Author of textbooks on molecular spectroscopy [*Molecules and Radiation*, 2nd ed., M.I.T. Press, 1985; Dover Publications Reprint Edition, 2004] and chemical kinetics [*Chemical Kinetics and Dynamics*, with J.S. Francisco and W.L. Hase, Prentice-Hall, 1989; 2nd ed., 1999]. Co-editor, *Spectrochimica Acta, Part A*, 1983 - 1998; member of International Advisory Board, *Progress in Natural Science: Communications from State Key Laboratories in China*.

Visiting appointments include professorships at the University of California, Berkeley and University of Leiden, Netherlands [Guggenheim Memorial Fellowship, 1972-73]; University of Southern California; Joint Institute of Laboratory Astrophysics, Boulder, Colo.; Université de Bourgogne, Dijon, France; University of Sydney, Australia; and School of Frontier Sciences, University of Tokyo at Kashiwanoha [in 2008]. Co-chair, *Symposium on Future Trends in Spectroscopy* at the Vatican in 1989. Professional society memberships include American Physical Society [Fellow, Division of Chemical Physics], American Chemical Society, American

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Association for the Advancement of Science, Phi Lambda Upsilon, Sigma Xi, and Federation of American Scientists.

Current professional emphasis is on introducing concepts of sustainability and environmental responsibility across the curriculum. Activities in this area include serving on the Energy Education Task Force of the MIT Energy Initiative and the Education Team of the Alliance for Global Sustainability. Member [1997 – 2009] and Chair [1999 – 2002] of the American Chemical Society's *Committee on Environmental Improvement*; member, 2002 Esselen Award Committee of the ACS Northeastern Section.

Member, National Research Council *Committee on Chemical Demilitarization*. Received 1999 ACS Director's Award for Advancing ACS Public Policy in Environment, for work to encourage the use of sound science in global climate change policy, and 2004 "Prophetic Voice for Sustainability Award" from Massachusetts Interfaith Power & Light. ◇

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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/>

<http://web.mit.edu/chemistry/>

www.chem.neu.edu/web/calendar/index.html

<http://chem.tufts.edu/seminars.html> [CHEM.]

<http://ase.tufts.edu/chemical/seminar.htm>

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<http://www.chem.umb.edu/>

www.umassd.edu/cas/chemistry/seminars.cfm

www.uml.edu/Dept/Chemistry/speakers.html

<http://www.unh.edu/chemistry/seminars.html>

May 01

Tobin Marks (Northwestern University)

Brandeis Univ., Gerstenzang 122

3:45 pm

May 04-06

AD Little Lecture in Inorganic Chemistry:

Herbert Roesky (University of Goettingen,

Institut fur Anorganische Chemie)

MIT, 6-120

4:00 pm

May 04

Steve Mayo (California Institute of Technology)

“Computational Protein Design: Past, Present
and Future”

Harvard, Pfizer Lecture Hall

4:00 pm

May 05

Prof. William F. Bailey (University of
Connecticut)

“Synthetically Useful Rearrangements of
Unsaturated Organolithiums”

Univ. New Hampshire, Iddles L103

11:10 am

May 07

Prof. Victor F. Petrenko (Dartmouth College)

“Ice and Snow Engineering-Scientific
Approach”

Univ. New Hampshire, Iddles L103

11:10 am

May 11

James A. Wells (University of California, San
Francisco)

“Engineering Cells to Death”

Harvard, Pfizer Lecture Hall

4:00 pm

May 12

Mohammad Movassaghi (MIT)

“Hooked on Sulfur Ligands: Novel Complexes
and Unexpected Applications”

Brandeis Univ., Gerstenzang 122

3:45 pm

May 13

Andreja Bakac (Ames Laboratory)

MIT, Room 6-120

4:00 pm

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

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