



# **Monthly Meeting**

Funding Strategies and Opportunities for Startups in the Boston Ecosystem. A panel discussion at Biogen.

# National Chemistry Week: A Lively NESACS Tradition

By Doris Lewis

# Nanochemistry at Lake Placid

By Hicham Fenniri

## **On Sabbatical**

By Mindy Levine

## On Sabbatical

Mindy Levine, 2018 Chair, Northeastern Section of the American Chemical Society

I knew I would have the opportunity to apply for sabbatical during the 2017-2018 academic year. Truth be told, I could have applied a year earlier, at the same time that I submitted my tenure application, although the stress of trying to get tenure prevented me from being able to rationally think about other topics simultaneously. So there I was, applying for a sabbatical leave, and trying to figure out where to go. Could I move the entire family someplace else? I wondered, immediately thinking about the logistics of a spouse with a full-time, demanding career of his own, of a house that was in no shape to rent to strangers, of 3 children, ages 9, 6, and 4, and what it would mean for them and their schooling and their friends to move them for a half year appointment, as appealing as that might be. I knew of some colleagues who had left their families at home and traveled independently for a sabbatical, but the mere thought of broaching the idea to my husband made me realize how laughable that would be for our family situation. The colleagues who had done that were uniformly male, leaving behind stay-at-home wives and children for the wives to manage. We did not have a situation like that, not even close.

No, I decided, slowly and somewhat regretfully. It was not feasible to move to a new location for sabbatical. I found a location close to my house where I would be able to do a meaningful sabbatical, at an Army research laboratory with an even shorter commute than my commute to URI (60 miles each way), and applied for and secured a sabbatical appointment to do research there.

That was the decision, right up until the time that our family took our first trip to Israel in May of 2017. During the course of that trip, I had the opportunity to visit Bar Ilan University (outside of Tel Aviv) and meet with many faculty members who were doing lots of exciting research. I could see multiple pathways for collaboration with several of the faculty members here, and I mentioned that to my contact person who

had arranged the visit.

"Would you ever think of doing sabbatical here?" he asked.

"Funny you should mention that," I replied. I have sabbatical starting in January 2018, and I think I can switch the location to come here instead."

I could switch the location, it turned out, relatively easily, and in a short amount of time I had decided that I would do sabbatical in Israel, and move my entire family with me to do so. The logistics of doing so were non-trivial, as I knew they would be, made more difficult by the fact that our long-term apartment rental was canceled 2 weeks before we were scheduled to arrive, and we had to scramble to find alternate housing, in a different city, and with different schools. We decided not to try to rent out the house, and were fortunate to find a house sitter who lives in the house and informs us of any disasters (floods in the basement, as a non-hypothetical example).

Our time in Israel has been interesting to date (writing now 3 months into a 5 month stay), with all of the children relatively well adjusted to life here. "I am teaching my friends English and they are teaching me Hebrew," said the middle child, a 6 year old kindergarten boy, not long after we arrived. "Say something in Hebrew," I requested. After a few minutes of thinking, he responded, proud of himself and his abilities, "Shalom" ("Hello" in Hebrew).

My husband is here too, fortuitously able to arrange his 8-week work sabbatical to coincide with my semester-long one. Interestingly, sabbaticals outside of academia have a certain connotation of freedom and vacation; here in academia, I need to figure out how to stay productive, and then account for my time spent on sabbatical when I return. So far, it seems, I have figured out that productivity reasonably well, with a Chemical Review article submitted, 3 other publications, teaching two graduate classes here, and numerous other talks and visits to other universities.

Of course, most relevant for this au-

dience is my role as 2018 Chair of the Northeastern Section, and how I am able to do that effectively from a remote location more than 5000 miles away. To this point, I say, technology is outstanding for video conferencing, for email communication, for document workflow, and for making sure that I can be virtually present in any situation in which that is required. I am thrilled to serve the local section in this capacity, and can't wait to see everyone again in person on my return.  $\diamondsuit$ 

### What's Yours?

Many local employers post positions on the NESACS job board.

Find yours at www.nesacs.org/jobs

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We would like to expand our capabilities for keeping our membership informed on what is happening in our field and how to adapt to changing times and new technologies.

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Call or email to see what opportunities are available.

contact -- Michael Filosa NESACS Board of Publications Phone - 508-843-9070

Email filosam@verizon.net

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<b>Cover:</b> Dr. Bassam Shakhashiri entertains his audience at the Museum of S ence-Roston during his approach presentation as the Phyllis A Brauner Memory	

ence-Boston during his annual presentation as the Phyllis A. Brauner Memorial Lecturer. (Photo by Brian D'Amico)

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# JOHELIS

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# National Chemistry Week: A Lively NESACS Tradition

By Doris Lewis



Ray Lam, current NESACS National Chemistry Week chair, and Dr. Bassam Shakhashiri

On Sunday, October 21, 2018 the Boston Museum of Science will be abuzz with volunteers from colleges, high schools, and science labs sporting Northeastern Section t-shirts proclaiming the 2018 National Chemistry Week theme "Chemistry is Out of This World" with a rocket motif.

Children will be mixing chemicals to make propellants for their own minirockets, making oxygen by water electrolysis as is done on the International Space Station, comparing the elemental composition of Earth with other planets using brightly colored bead "elements," and exploring "icy orbs" like the icy worlds being explored by NASA in the outer solar system.

The Museum's Cahners Theater will fill with an audience of all ages who have come to experience the world-renowned demonstration lectures of Dr. Bassam Shakhashiri of the University of Wisconsin who brings to life his motto "Science is Fun!" At the Boston Children's Museum on Saturday, October 27 young children will enjoy hands-on experiments like these as volunteer leaders ask the young experimenters: " what do you see happening?"

Activities like these will be taking place all over the country as part of the American Chemical Society's National Chemistry Week. In the Northeastern Section they continue a tradition of years of outreach to the public by Sec-



David Sittenfeld and Christine Jaworek-Lopes

tion volunteers. The first demonstration lecture for the public in the Northeastern Section was at the Boston Museum of Science on December 29, 1986, a year before the American Chemical Society instituted National Chemistry Day, the precursor of National Chemistry Week, in 1987.

The lecture was presented by Prof. Emeritus Hubert Alyea of Princeton, and by Dr. Bassam Shakhashiri, whose presentations in the Northeastern Section continue to this day. This lecture, and other lectures to follow, were organized by Dr. Phyllis Ambler Brauner, who among many other services to the Section had become in 1974 the first woman to be Section Chair.

As recalled by her daughters in the April 2002 *Nucleus*, "she liked to recall the dour predictions of a colleague who insisted no one would come. As it turned out, more than 350 people of all ages attended, and 200 more had to be turned away." She organized similar lectures to engage the public in succeeding years at Framingham State College featuring Dr. Shakhashiri and Dr. Alyea as well as Dr. Jerry Bell, then of Simmons College, and Dr. Dudley Hershbach of Harvard University, all known for their skill at presenting to young and nonscientific audiences.

As Professor Hershbach remembers "she had steadfast dedication to the

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# **Monthly Meeting**

The 981<sup>st</sup> Meeting of the Northeastern Section of the American Chemical Society - Sponsored by Biogen

Thursday – October 11, 2018 Biogen

300 Binney Street, Cambridge, MA 02142

Please join us for our October Monthly meeting to honor the winner of the Henry Hill Award. This award is given to a member of NESACS for their Outstanding Service to the Northeastern Section. This month's meeting will be the first of a three part series on the chemical start-up environment in Boston named "Funding strategies and opportunities for Start-ups in the Boston Ecosystem". This event will concentrate on the funding of startups and will feature a panel spanning the different strategies on funding a startup. The Panelists will include: Dr. Bruce Booth, Principle at Atlas Ventures; Dr. Katherine Bowdish, Head of Sanofi-Sunrise; Dr. Judith Giordan, co-founder of Chemical Angels Network; Dr. Abi Barrow, Executive Director at Office of Technology Commercialization and Ventures, Mass. We want to thank Biogen for their support of this event.

4:30 pm NESACS Board Meeting

5:30 pm Social Hour

6:30 pm Dinner

7:30 pm Presentation of the Henry A. Hill Award

Innovation Panel on Funding of Startups

For those who would like to join us for dinner, register by noon, Thursday, October 4, 2018. Reservations are to be made using Eventbrite services: https://funding-startups-nesacs.eventbrite.com

Select the appropriate ticket price. Cost: Members, \$30; Non-members, \$35; Retirees, \$20; Students, \$10. **Dinner reservations not cancelled at least 24 hours in advance must be paid**.

If you wish to join us for this meeting and not eat dinner, please register by noon, Thursday, October 4th at https://funding-startups-nesacs.eventbrite.com Select "Seminar only".

If you have any questions or require additional information, contact the Administrative Coordinator, Anna Singer, via email at secretary@nesacs.org .

YOU MUST REGISTER IN ADVANCE TO ATTEND THE MEETING: THERE IS NO REGISTRATION FEE TO ATTEND THE MEETING; DIN-NER RESERVATIONS ARE REQUIRED. THE PUBLIC IS INVITED

**Directions to Biogen** - 300 Binney Street – BLDG 9, Cambridge, MA 02142; (617) 679-2000. Please park in "Blue" parking lot.

**MBTA:** Take the Red Line T to the "Kendall Square/MIT" stop. Walk up the stairs and locate the Marriott Hotel entrance. Walk through the lobby of the Marriott Hotel to Broadway Street

From Highways North or South: Take 93 North or South to Exit #26 (Storrow Drive). Take Storrow Drive, take the first left to "Government Center/ Kendall Square". Go up the ramp and turn right over the Longfellow Bridge. Go straight and pass the Marriott Cambridge Hotel on the left. Biogen locations are on your right, just after the Ames Street intersection. Parking can be accessed via the 2nd driveway on right. Biogen locations are across the street from the side exit of the parking garage. ♦

# Morton Hoffman Receives ACS Scholars Mentoring Prize



Morton Hoffman and Zaida Morales-Martinez Photo by Linda Fernando

Emeritus Professor Morton Z. Hoffman (Boston University) received the Zaida C. Morales-Martinez Prize for Outstanding Mentoring of ACS Scholars at the Committee on Minority Affairs (CMA) Luncheon on August 20, 2018, at the ACS National Meeting in Boston.

The Prize, consisting of a plaque and a check for \$1,000, was named for Morales-Martinez in recognition of her many years as the leader of the mentoring of the Scholars. Bob Lichter and his wife, Diane Scott-Lichter, initiated the Prize in 2011 with a grant from the Camille and Henry Dreyfus Foundation. With the passing of Bob earlier this year, it continues to be a part of the legacy of his long-standing commitment to the ACS Scholars Program. His children, Derek and Allison, presented the Prize together with Morales-Martinez and Tom Connelly, ACS Executive Director and CEO.

Hoffman was cited for his mentoring of ACS Scholars and other students, many of whom have been co-authors on his more than 200 peer-reviewed articles continued on page 6

## **Announcements**

Grants-in-Aid to Undergraduates to Attend the 257<sup>th</sup> ACS National Meeting & Exposition, March 31-April 4, 2019, in Orlando, FL

The Northeastern Section of the American Chemical Society (NESACS) will provide Grants-in Aid of \$350 to each of four undergraduates to attend the 257th ACS National Meeting in Orlando, FL, and to present a paper at the Undergraduate Research Poster Session in the Division of Chemical Education. The institutions of the successful applicants are expected to match the award. Eligibility: Applications will be accepted from students at colleges and universities within the Northeastern Section of the ACS. The undergraduate student must be a chemistry, biochemistry, chemical engineering, or molecular biology major in good standing with at least junior status and must be currently engaged in undergraduate research.

Application: Application forms may be obtained from the NESACS web site at http://www.nesacs.org. The deadline for receipt of completed applications by Professor Matthew Gage, Chair of the Grants-in-Aid Committee, is October 5, 2018. Completed applications are to be sent to: Professor Matthew Gage, Department of Chemistry, University of Massachusetts Lowell, 1 University Avenue, Lowell, MA 01854 Phone: 978/934-3683 Fax: 978/934-3013; e-mail: Matthew\_Gage@uml.edu

**Notification:** Applicants will be notified of the results by e-mail on or before October 12, 2018. The deadline for electronic submission of abstracts to the American Chemical Society in Washington, D.C. is October 23, 2018, 11:59 PM.

Q. Exactly, how many awards and scholarships does NESACS sponsor?
A) One b) Two c) Many www.nesacs.org/awards

Malika Jeffries-EL Named ACS Fellow



Photo courtesy of Prof. Jeffries-EL

The roster of the 2018 class of ACS Fellows includes NESACS member Malika Jeffries-EL of Boston University among the 51 presented in a recent issue of C&EN. She joins those from NESACS who were elected Fellows in previous years.

The new ACS Fellows, who represent National Committees, Divisions, Local Sections, and International Chapters, received their lapel pins and certificates at the National Meeting in Boston on August 20 in recognition of their outstanding contributions to science, the profession, and the ACS community.

Professor Jeffries-EL is recognized for her research on the development of organic semiconductors - materials that combine the processing properties of polymers with the electronic properties of semiconductors. She has published and lectured about her research widely.

Prior to joining the B.U. Department of Chemistry and the Division of Materials Science in 2016, Professor Jeffries-EL was an Associate Professor at Iowa State University, and recently served as a Martin Luther King, Jr., Visiting Professor at MIT. A graduate of Wellesley College, she received her Ph.D. degree from George Washington University and did postdoctoral research at Carnegie Mellon University.

She has served on Advisory Boards for NSF and National Academy programs. Her ACS service includes membership on YCC, SOCED, Council,

### **Morton Hoffman**

Continued from page 5

and book chapters through the course of his 57-year career at B.U.

In his acceptance remarks, he recognized his friendship with "Mama Z" and Bob Lichter, and the work he did with him to identify the ACS Scholars within NESACS. Hoffman said, "I am proud to be associated with the many ACS Scholars who have been assisted financially and academically by this wonderful program. To these students of the past, the present, and the future, as well as to all of us gathered here today as members of minority groups in every sense, I celebrate our diversity. Whether we, personally or our ancestors, came to this great nation as part of 'the huddled masses yearning to breathe free' or on slave ships in chains, our moral compass must be directed by the concluding words of the Pledge of Allegiance, which we all learned in school or upon becoming citizens of these United States: 'With Liberty and Justice for All.' LIB-ERTY AND JUSTICE - FOR ALL!" ♦

numerous task forces, and the Editorial Boards of C&EN and Macromolecules. She is also an editor for the Journal of Material Chemistry, a publication of the Royal Society of Chemistry.

Previously, she was honored with the ACS Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences, the ACS-Women Chemists Committee Rising Star Award, and the National Organization of Black Chemist and Chemical Engineers (NOBCChE) Lloyd N. Ferguson Young Scientist Award.

In 2016, Professor Jeffries-EL was the speaker at the October NESACS monthly meeting, which annually honors Henry Hill (1915-1979), who was NE-SACS Chair (1963) and the first African-American president of the ACS (1977).

Nominations for the 2019 class of ACS Fellows will open during the early part of next year. Additional information about the program is available at <www.acs.org/fellows> or from Jack Driscoll pidguy@aol.com>, Chair of the NESACS Professional Relations Committee.  $\diamondsuit$ 



Guest educators from local high schools and universities will guide visitors through hands-on activities suitable for museum visitors of all ages. Visitors will be mixing chemicals to create their own mini rockets, making oxygen by water hydrolysis, comparing the elemental composition of Earth with other planets using brightly colored bead "elements," and exploring "icy orbs" like the icy worlds being explored by NASA in the outer solar system.

### Sunday, October 21, 2018 – Museum of Science, Boston

"Out of This World" Hands-on Activities
Blue Wing, Lower Level, 11:00am – 3:00 pm
Admission to the museum is required

Phyllis A. Brauner Memorial Lecture by Dr. Bassam Shakhashiri Cahners Theatre (2nd floor, Blue Wing) at 1:00pm and 3:00pm Admission to the museum is required

Dr. Bassam Shakhashiri is a Professor of Chemistry at the University of Wisconsin-Madison and is the William T. Evjue Distinguished Chair for the Wisconsin Idea. Professor Shakhashiri has captivated audiences with his scientific demonstrations at a variety of locations including Boston's Museum of Science, the National Academy of Sciences and the Smithsonian's National Air and Space Museum in Washington.

Want the best seats in the house? Reserved seats to Dr. Shakhashiri's show are available via advance reservation. Please contact the NESACS secretary via email secretary@nesacs.org before October 12, 2018. Reservations will be available for pick-up in the lobby of the museum at the ACS table.

### Saturday October 27, 2018 – Boston Children's Museum

"Out of This World" Hands-on Activities
11:00am – 4:00 pm
Admission to the museum is required



# **Chemists Celebrate Earth Week Event** at the Museum of Science, Boston: A **STEM Outreach Event by Enthusiastic Science Educators**

By Jayashree Ranga, Salem State University, and Emily Hostetler and David Sittenfeld, Boston Museum of Science

The Chemists Celebrate Earth Week (CCEW) event, a funfilled STEM outreach event, was organized at the Museum of Science, Boston on Sunday, April 8, 2018 from 11 am - 3 pm by the Northeastern Section of American Chemical Society and the Museum of Science (MoS). About 80 committed science educators from 10 organizations engaged young visitors with 14 hands-on chemistry activities related to this year's theme "Dive into Marine Chemistry."

About 700 visitors participated in these fun-filled CCEW activities at the event. Activities related to this year's theme included ocean acidification, bioluminescence, water filtration systems, effect of temperature on chemical reactions, how marine mammals stay warm, cleaning oil spills with chemistry, water density, hydrogen bonds, conductivity of various liquids, water quality testing, Cartesian diver, challenges with CO<sup>2</sup>, and Tums<sup>®</sup> in carbonated water to mimic coral reefs in acidified oceans.

The 2017 Illustrated Poem Contest winner from NESACS presented her art at the event.

https://www.acs.org/content/acs/en/education/outreach/ccew/i llustrated-poem-contest/winners.html

Most of the science educators were either undergraduates or high school students. Special thanks to science educators from Beyond Benign, Gordon College, Graham and Parks School, Malden Catholic High School, Museum of Science, Northeastern University, NESACS, Salem State University, Simmons University, and Suffolk University.



CCEW guest educators at the MoS on April 8, 2018.

Photo by Jayashree Ranga.

NESACS also participated in the CCEW-2018 Illustrated Poem Contest. The student received a \$25 gift card from amazon.com and the teacher also received a \$25 gift card from teacher amazon.com.

#### Congratulations to the winners!

**Student:** Ashmita Prajapati (3-5 Category) School or Sponsoring group: Graham and Parks

Teacher: Mary Gallagher

**Student:** Anthony Kim (9-12 Category)

School or Sponsoring group: Phillips Academy Andover

Teacher: Kevin Cardozo



Ashmita Prajapati with her certificate from NESACS CCEW-2018 Illustrated Poem Contest. Photo by Sanjukta Ghosh

Anthony Kim with his certificate from NESACS CCEW-2018 Illustrated Poem Contest. Photo by Kevin Cardozo



### Thank you CCEW science educators!\*

#### **Beyond Benign**

Theresa Buenrostro, Chris Durkee, Mollie Enright, Nephaelia Nichols, Loren Po

#### Gordon College

Lian Atlas, Quincy Dougherty, Heather Gordon, Jennifer Noonan, Anna Kjellson, Daniel Morad, Evan Platzer

#### Graham and Parks school

Ashmita Prajapati and Sanjukta Ghosh

#### Malden Catholic High School

Jeremy Mitchell, Gennaro Giardullo, David Jarosz, Sean Kelley, Jiashu Li, Alex Min, Jerry Nguyen, Diane Perito, Gabriel Portal, Yufei Tang, Jefferson Tran, Atria Yan

#### NESACS

Cosmo Sabatino

#### Northeastern University

Emily Dunn, Loretta Fernandez, Kathryn Foster, Seth Freedman, Simoni Goulart, Kirsty Haley, Tutu Ji, Catherine

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#### 2018 NCW Illustrated Poem Contest Chemistry is Out of This World

The Northeastern Local Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in Kindergarten through 12th grade.

Contest Deadline: Monday October 29, 2018

Prizes: \$30 Amazon gift card for the winner of each category

Contact: Dr. Ray Lam (rlam@maritime.edu)

Winners of the Northeastern Local Section's Illustrated Poem Contest will advance to the National Illustrated Poem Contest for a chance to be featured on the ACS website and to win prizes!

Write and illustrate a poem using the NCW theme, "Chemistry is Out of This World." Your poem must be **no more** than 40 words and in the following styles to be considered:

#### HAIKU - LIMERICK - ODE - ABC POEM - FREE VERSE - END RHYME - BLANK VERSE

#### Possible topics related to space chemistry include:

Light Stars Atmosphere Spectrum Planets Gases Supernova Ultraviolet

#### Entries will be judged based upon:

- Artistic Merit use of color, quality of drawing, design, and layout
- Poem Message fun, motivational, inspiring about yearly theme
- Originality Creativity unique, clever and/or creative design
- · Neatness free of spelling and grammatical errors

#### Contest rules:

- All poems must be no more than 40 words, and in one of the following styles to be considered: Haiku, Limerick, Ode, ABC poem, Free verse, End rhyme, and Blank verse.
- Entries are judged based upon relevance to and incorporation
  of the NCW theme, word choice and imagery, colorful artwork,
  adherence to poem style, originality and creativity, and overall
  presentation
- All entries must be original works without aid from others.
   Poems may be submitted by hand on an unlined sheet of paper
   not larger than 11" by 14" or scanned and sent via email.
   Illustrations may be created using crayons, watercolors, other
   types of paint, colored pencils, or markers. The illustration may
   also be electronically created by using a digital painting and
   drawing app on a computer, tablet, or mobile device.



- The text of the poem should be easy to read and may be typed before the hand-drawn or digital illustration is added, or the poem may be written on lined paper, which is cut out and pasted onto the unlined paper with the illustration.
- No clipart or unoriginal images can be used.
- Only one entry per student will be accepted; all entries must include an entry form. If the illustration is created using a digital painting or drawing app, the name of the program must be included on the entry form.
- All illustrated poems and/or digital representations of the poems become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners' names, likenesses, and entries for editorial, advertising, and publicity purposes.

# **Nanochemistry at Lake Placid**

Hicham Fenniri, Departments of Chemical Engineering, Bioengineering, Chemistry and Chemical Biology, Northeastern University <h.fenniri@northeastern.edu>



The Northeast Nanomaterials Meeting (NENM), which was organized by the Northern New York Local ACS Section, took place at Lake Placid, NY, June 1-3, 2018 (http://nenm2018.org). As the first edition of this focused meeting, which had "Nanomaterials: Applications and Environmental Impact" as the general theme, this conference was a great success!

NENM had the format of a Gordon Research Conference with all the speakers and attendees attending one track with plenty of networking time. An afternoon was available to explore the beautiful mountainous surroundings of Lake Placid or the village where the 1932 and 1980 winter Olympic games took place. This region has so much to offer in terms of recreation and is a great place to find inspiration and engage in creative thinking. The venue alone scores an A+.

The conference began in the afternoon of June 1 in the midst of the legendary, almost biblical, torrential rains of Lake Placid, which faded as quickly as they came to yield clear skies and silky weather.

The first session was dedicated to a workshop/panel discussion, "Funding Opportunities Workshop: Where is the Money?" with three seasoned experts: Richard Johnson (University of New Hampshire), a former NSF program officer; Liviu Mobileanu (Syracuse University), who was very successful in obtaining funding from NIH; and Tom Wenzel (Bates College), who has secured NSF funding for his REU pro-

gram for over 20 years (after four backto-back rejections!). The expert panel was well-attended and provided insightful comments on how to best approach potential funding agencies.

The evening session opened with a reception followed by the first keynote lecture, which was captivatingly delivered by Vincent Rotello (UMass Amherst). His talk, "Interfacing Nanomaterials with Biology: From Gene Editing to Combating MRSA," on fighting multi-drug resistant bacteria such as Methicillin-resistant *Staphylococcus aureus* (MRSA), highlighted the power and potential of his ingeniously designed nanoparticles.

The second day of the conference began bright and early with a session on "Nanomaterials: Synthesis, Functionalization and Chemical Applications;" I chaired the first half of the session and gave a lecture in the second half. Excellent presentations were given, notably by C. J. Zhong (Binghamton University), Tito Scaiano (University of Ottawa; winner of the 2016 James Flack Norris Award in Physical Organic Chemistry sponsored by NESACS), and Stan Wong (State University of New York in Stony Brook).

The afternoon was free for outdoor activities.

The evening session featured an exceptional keynote speaker, Thomas Webster (Northeastern University), whose successful academic and entrepreneurial careers were reflected in "Big Health Advances with Small Materials: 20

Years of Commercializing Devices Using Nanotechnology" as he presented examples from his own experience to encourage the audience to explore new frontiers in science and engineering and to never shy away from seizing opportunities and taking risks in R&D.

The evening session extended into the night with additional lectures by two rising stars, Francois Fay (York College-CUNY) and Katarzyna Kurzatkowska (SUNY Postdam).

The Sunday morning session, which closed the conference, focused on the impact of nanomaterials on health and the environment, and featured Vicky Colvin (Brown University) as the keynote speaker; her central point related to the use of nanomaterials in our everyday life, "Nanotechnology in the Environment: Understanding and Exploiting the Wet/Dry Interface."

Finally, this article cannot end without acknowledging the tremendous work done by NENM 2018 organizers, specifically Fadi Bou-Abdallah (SUNY Potsdam, Conference Chair), Martin Walker (SUNY Potsdam, Conference co-Chair), Rajesh Sunasee (SUNY Plattsburgh, Exhibition Chair), and Mario Wriedt (Clarkson U, Poster Session Chair), in addition to all the session chairs. The conference was very successful; perhaps the next edition will be part of NERM 2021 in Boston!  $\diamondsuit$ 

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# **Report from Boston: NERACS Board Meeting**

Morton Z. Hoffman, Chair, NERM Committee; NESACS Representative to NERACS [hoffman@bu.edu]

The Board of Directors of NERACS (Northeast Region of the ACS, Inc.) met on August 21, 2018, in Boston, during the ACS national meeting. The Board consists of its officers and representatives from the constituent local sections in the Northeast Region.

The following local sections comprise NERACS (those represented in Boston are in *italics*): *Binghamton*, *Central Massachusetts*, *Central New York*, *Connecticut Valley*, Cornell, *Corning*, Eastern New York, *Green Mountain*, Maine, Mid-Hudson, *New Haven*, *Northeastern*, *Northern New York*, Penn-York, *Rhode Island*, Rochester, Western Connecticut, Western New York.

NERACS Chair, Tony Noce (Eastern New York), had resigned his position a few weeks earlier when he joined the staff of the Membership Division of ACS. Willem Leenstra (Green Mountain), Vice-Chair, presided over the meeting. The other officers present were Alyssa Thomas (Central New York), Secretary, and Wayne Jones (NESACS), Treasurer and ACS Director-at-Large. Also in attendance was Laura Pence (Connecticut Valley and ACS District I Director).

Julie Smist (Connecticut Valley) was elected Chair and Alyssa Thomas was re-elected Secretary, both for 2019-20

The Treasurer reported that NER-ACS received \$6,000 from NERM 2016 based on the revenue split, and made a seed loan to the Rochester Section for NERM 2020. Approximately \$52,000 is in the Treasury.

The Board was introduced to Starleetah Gaddis-Parker <s\_gaddis-parker@acs.org>, the new NERM meeting planner at ACS, who gave a brief overview and update on her role in the organization of regional meetings. For more information, see <a href="https://www.acs.org/content/acs/en/meetings/regional/organizer.html">https://www.acs.org/content/acs/en/meetings/regional/organizer.html</a>.

Future NERMs will be held as follows:

- June 23-26, 2019; Saratoga Springs, NY (Eastern New York LS)
- October 2020; Rochester, NY (Rochester LS)
- June 16-19, 2021; Boston, MA (NE-SACS)

The Green Mountain LS would like to host NERM 2022 in Burlington, VT; the Rhode Island LS has expressed interest in holding NERM 2023 in Providence.

Martin Walker and Fadi Bou-Abdallah (Northern New York), the organizers of NERM 2018 (known as NENM, Northeast Nanomaterials Meeting), which was held June 1-3 in Lake Placid, NY, reported that there were 100 attendees, including 19 invited speakers. Forty posters were presented at this small, topical, Gordon Conference-style meeting with all-in-one (hotel, food, conference) registration. The total rev-

enue was \$42,000 with a surplus of ~\$3,000 over expenses. The conference and its model for the future were deemed a success.

Likewise, the *Chemistry in the Finger Lakes* mini-conference, which was held June 8-10 in Corning, NY, was a success with 59 participants. Organized by a number of local sections in central New York, the meeting featured local speakers and included free admission to the Corning Museum of Glass.

The next meeting of the NERACS Board will be held during NERM 2019 in Saratoga Springs. The Executive Committee plans to meet during the ACS Spring 2019 National Meeting in Orlando. ♦

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# NESACS Wins Two ChemLuminary Awards Photos courtesy of the American Chemical Society.

The Northeastern Section captured two ChemLuminary Awards at the ACS National Meeting in Boston.

- ACS President's Award for Local Section Government Affairs, Committee on Chemistry and Public Affairs (CCPA)

   For outstanding efforts by a local section to increase member involvement in government affairs and advance public policy to benefit science and society. The other finalists were the Dallas-Fort Worth and Virginia Local Sections.
- Outstanding Ongoing Chemists Celebrate Earth Day (CCED) Event, Committee on Community Activities (CCA) – For demonstrated exemplary performance in thee development and implementation of outstanding activities in support of CCED. The other finalists were the Georgia and New York Local Sections.

In addition, NESACS was a finalist in 11 other award competitions (winner):

- Outstanding Community Involvement in NCW (Pittsburgh)
- Outstanding NCW Event for a Specific Audience (Binghamton)
- Global Engagement Award for Local Sections (Midland)
- Best Activity or Program Stimulating Member Involvement (Midland)
- Most Innovative New Activity or Program (Toledo)
- Best Event or Activity Organized by, or Benefiting, the Applied Chemical Technology Professional Community (Midland)
- Outstanding Collaboration Between a Local Section and Technical Division (New York and POLY)
- Best Overall WCC Local Section (East Central Illinois)
- Outstanding Local Section Younger Chemists Committee (East Central Illinois)
- Outstanding or Creative Local Section Younger Chemists Committee Event (Silicon Valley)
- Outstanding Local Section Industry Event (South Jersey)

Announcements and presentation of the awards took place at the 256th ACS National Meeting in Boston, MA on Tuesday, August 21.  $\diamondsuit$ 



ACS President's Award for Local Section Government Affairs: (l-r) Raymond Forslund (CCPA Chair), Mindy Levine (NESACS Chair), Catherine Rawlins (Northeastern University), Doris Lewis (Suffolk University), Allison Campbell (ACS Past-President).



Outstanding Ongoing Chemists Celebrate Earth Day Event: (l-r) Michael McGinnis (CCA Chair), Mindy Levine (NESACS Chair), Jayashree Ranga (Salem State University), Bonnie Charpentier (ACS President-Elect).

photos continued on page 13

### Have you seen the new NESACS website yet?

Updated frequently. Late-breaking news, position postings and back issues of the Nucleus

**WWW.NESACS.org** 

### **ChemLuminary Awards**

Continued from page 12



Presentation of the 2018 Helen M. Free Award for Public Outreach to Dr. Steven Murov by ACS President, Dr. Peter Dorhout and the award sponsor, Jennifer Maclachlan, Chair of the ACS Committee on Public Relations and Communications.



Jens Breffke (l), Chair of the International Activities Committee, and Bonnie Charpentier (r), ACS President-Elect presented the Global Engagement Award to Gina Malczewski and Wenyi Huang of the Midland Local Section.



Jens Breffke (1) and Bonnie Charpentier (r) present the Global Engagement Award for Technical Divisions to the Small Chemical Business Division (SCHB). Receiving the award in the center are (1-r) Peter Lauro, Chair of SCHB, Mukund Chorghade, Past-Chair of SCHB, and Joe Sabol, Program Chair of SCHB.

# **Chemists Celebrate Earth Week Event**

Continued from page 8

LeBlanc, Kayla Mathiowetz, Sanya Mittal, Samantha Mundorff, Abby Mungcal, Christopher Park, Erica Yost

#### **Salem State University**

Shira Bakal, Sergio Benavides, Miyen Chang-Contreras, Changqing Chen, Morgan DePiero, Lisbeth Diaz, Thales Gloria, Craig Gordon, Larissa Hentschel, Carolyn Leonard, Dayanna Martinez, Katherine Martinez, Sam Mattei, Shivani Patel, Renee Romany, Sarah Stanhope, Marina Tarantino, Elenitsa Vangeli, Nury Verdugo, Jonathan Weaver

#### **Simmons College**

Nusrat Africawala, Shreya Bhattacharyya, Elaine Blausier, Schuyler Forest, Taylor Forest, Masha Kolovskaya, Sophie Lange, Kathryn Mansour, Lena Syed, Chyenne Yeager, Grace Wilson

#### **Suffolk University**

Janice Bautista, Julie Bautista, Sirui Chen, Edith Enyedy, Leticia Gomes, Betelhem Gemechu, Kaitlyn Jenkins, Carlos Jaramillo, Meri Kalashyan, Prima Prajapati, Lydia Riffert

#### \*I apologize if your name is not on this list.

NESACS will be organizing National Chemistry Week (NCW) in October. The 2018 theme for NCW is "Chemistry is Out of This World", which focuses on chemistry of and in outer space.

### THE COMMITTEE ON CHEMICAL ABSTRACTS (CCAS) WANTS YOUR FEEDBACK

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### **Chemistry Week**

Continued from page 4

chemistry community and to teaching some chemistry to the public." In 2000, she organized a presentation by Dr. Bassam Shakhashiri in the iconic MIT lecture hall under the famous dome, and when she was too ill to participate, thenchair of the Section Doris Lewis stepped in to help with the events, with eminent MIT chemists Fred and Theodora Greene fetching chemicals from the MIT stockroom.

At Dr. Lewis' invitation Professor Shakhashiri presented another lecture in November at the Boston Museum of Science, the first of many National Chemistry Week lectures he was to perform for the Northeastern Section. Though Phyllis was too ill to attend, she was delighted to receive a phone call from Bassam on November 5, the day of the lecture. After her passing in December of that year, the Phyllis A. Brauner Memorial Lecture Committee was formed to ensure that her vision of chemistry presentations in the Northeastern Section for the public of all ages would endure. Founded by Dr. Lewis and by family and Northeastern Section colleagues of Dr. Brauner, the Committee is still active in supporting the annual Brauner Lecture during National Chemistry Week, with the aid of the Northeastern Section Phyllis A. Brauner Memorial Fund gathered through the efforts of the Northeastern Section and the Brauner Committee.

At the 2018 National American Chemical Society meeting in Boston the CHED symposium, *Informal STEM Education: Innovation and Collaboration*, featured a presentation by Dr. Shakhashiri entitled "Sharing the Joy of Chemistry with kids of all ages: Remembering Phyllis A. Brauner."

In addition to this warm and engaging talk, the symposium featured talks by Ray Lam, current NESACS National Chemistry Week chair, and Jayashree Ranga, current NESACS chair of 2018 ACS award-winning Chemists Celebrate Earth Week, testimonials to the vibrant community outreach that still animates the Northeastern Section.

At the Informal STEM Education

symposium David Sittenfeld, Program Manager at the Museum of Science and co-cordinator with Dr. Lewis of the symposium, presented "ChemAttitudes: Developing and disseminating strategies and materials to support chemistry interest, relevance, and self-efficacy," explaining the ChemAttitudes project, funded by the National Science Foundation, a collaboration between the NISE Network and the American Chemical Society led by the Boston Museum of Science.

This project will bring hands-on chemical experiences to the public of all ages in museums and other informal settings, extending nationwide the type of hands-on experiments for the public piloted through the Museum of Science as well as the Boston Children's Museum in collaboration with the Northeastern Section.

How did a lecture by famous scientists develop into a full day of hands-on experiments with over a hundred enthusiastic volunteers and hundreds of young participants? Christine Jaworek Lopes, or Dr. J-Lo as she was known by her students, became coordinator of National Chemistry Week in the early years of the Brauner Lecture and proceeded to attract volunteers to present hands-on activities to the attendees attracted by the Lecture.

First, when the Lectures were presented at Wellesley College and then at the Museum of Science, she coordinated a growing number of volunteers and activities until her untimely passing in 2016.

As quoted by Jennifer Maclachlan, friend and NESACS colleague in the October 3, 2016 C&E News, "Chris, or Dr. J-Lo, as her students called her, was the National Chemistry Week (NCW) and Chemists Celebrate Earth Day coordinator for the ACS Northeastern Section (NESACS) for more than 10 years, establishing lasting relationships between the local section and Boston-area museums.

Chris took home a ChemLuminary Award in 2012 for most creative use of a theme at NCW during the International Year of Chemistry in 2011. The 2015 recipient of the prestigious NE-SACS Henry A. Hill Award, Chris was



A presentation by Dr. Shakhashiri entitled "Sharing the Joy of Chemistry with kids of all ages: Remembering Phyllis A. Brauner."



Visitors at the National Chemistry Week activities table at the Museum of Science Boston.

a true chemistry ambassador in her volunteer roles at the local, divisional, and national levels of ACS, as well as in her classroom at Emmanuel College and in her own community of Hanover, Mass." A testimony to Chris's outstanding leadership was her capacity to attract and train new leaders to facilitate NCW and CCEW outreach as she had done.

Hence, her NESACS colleague Ray Lam of Massachusetts Maritime Academy was able to step in and continue an outstanding NCW program and Jayashree Ranga of Salem State University assumed leadership of CCEW. Both programs continue to gather enthusiastic volunteers and award nominations.

This year and for years to come NESACS members can continue to bring their families and friends to these outstanding programs, National Chemistry Week in October and Chemists Celebrate Earth Day in April, and continue the NESACS volunteer tradition of joining colleagues as we bring the joy of chemistry to the public of all ages.  $\diamondsuit$ 

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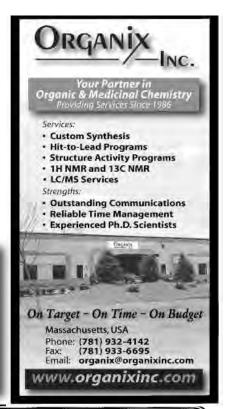
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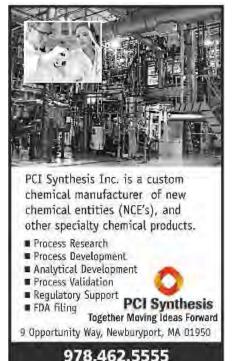
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Note also the Chemistry Department web pages for travel directions and updates. These include:

http://www.bc.edu/schools/cas/chemistry/s eminars.html

http://www.bu.edu/chemistry/seminars/ http://www.brandeis.edu/departments/chemistry/events/index.html

http://chemistry.harvard.edu/calendar/upco

http://www.northeastern.edu/cos/chemistry/events-2/

http://chemistry.mit.edu/events/all http://chem.tufts.edu/seminars.html http://engineering.tufts.edu/chbe/newsEven ts/seminarSeries/index.asp

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http://www.unh.edu/chemistry/events https://www.wpi.edu/academics/departmen ts/chemistry-biochemistry

#### October 01

Prof. Catherine Drennan (MIT)
"The Great (and Less Great) Metallocofactors of Biology"

Harvard, Pfizer Lecture Hall, 4:15 pm

Prof. Anthony Fitzpatrick (Columbia) MIT, 4-270, 4:00 pm

Prof. Yujie Sun (U. Cincinnati) Boston Univ., Metcalf 113, 4:00 pm

#### October 02

Prof. Yujie Sun (Utah State) Univ. New Hampshire, Parsons N104, 11:10 am

Prof. Teri W. Odom (Northwestern)
"Single-Nanoparticle Sensors of Nano-Bio
Interactions"

Tufts, Pearson P106, 4:30pm

#### October 03

Prof. Catherine Drennan (MIT)
"Is the Classroom Lecture Becoming Extinct or Simply Evolving?"

Harvard, Pfizer Lecture Hall, 4:00 pm

Prof. Theodore Betley (Harvard) MIT, 4-370, 4:15 pm

#### October 04

Prof. Chi H. Mak (U. So. Cal.) Boston College, Merkert 130, 4:00 pm

#### October 05

Merck Symposium Poster Session

Boston College, Gasson Hall 100 1:30 pm – 3:00 pm

#### Merck Symposium

Prof. Ang Li (Shanghai Institute of Organic Chemistry)

"Total Synthesis of Polycylic Natural Products" Boston College, Merkert 127, 3:20 pm Dr. Yingju Xu (Merck)

"Process Development towards a Green Manufacturing Route for MK-8591 (EFdA)" Boston College, Merkert 127, 4:40 pm

#### October 08

Tinghu Zhang (Harvard) Brandeis, Gerstenzang 121, 3:40 pm

#### October 09

Prof. Daniel Seidel, (Univ. of Florida) Boston College, Merkert 130, 4:00 pm

Prof. Lorenz Studer (Memorial Sloan Kettering)
"Building and repairing the human brain: from
pluripotency to cell therapy"
Brandeis, Shapiro Campus Center
4:00 pm

#### October 10

Prof. Aaron Esser-Khan (U. Chicago) Harvard, Pfizer Lecture Hall, 4:15 pm

#### October 15

Prof. David Liu (Harvard & The Broad Institute) Harvard, Pfizer Lecture Hall, 4:15 pm

Pascal Arnoux (CEA, France) MIT, 4-270, 4:00 pm

Prof. Jiaoyang Jiang (U. Wisconsin-Madison) Boston Univ., Metcalf 113, 4:00 pm

#### October 16

Prof. Christopher Uyeda (Purdue) Boston College, Merkert 130, 4:00 pm

Prof. Eric Gale (Harvard)

Univ. New Hampshire, Parsons N104, 11:10 am

#### October 18

Prof. Hailing Wang (Yale) Boston College, Merkert 130, 4:00 pm

Prof. Naoya Kumagai (Institute of Microbial Chemistry)

"A New Frontier of Amide Chemistry" MIT, 6-120, 4:00 pm

Prof. Stefanie Sydlik (Carnegie Mellon) Brandeis, Gerstenzang 121, 3:40 pm

#### 2018 Max Tishler Award Lecture

Prof. Frances Arnold (Caltech)

"Innovation by Evolution: Bringing New Chemistry to Life"

Tufts, Pearson P106, 4:30pm

#### October 19

**Novartis Lectureship** 

Prof. Alanna Schepartz (Yale)

**Novartis Lectureship** 

Boston College, Merkert 130, 4:00 pm

Prof. Naoya Kumagai (Institute of Microbial Chemistry)

"A New Frontier of Amide Chemistry." Harvard, Pfizer Lecture Hall, 4:15 pm

#### October 22

#### Novartis Symposium

Prof. Timothy Newhouse (Yale) Harvard, Pfizer Lecture Hall, 4:15 pm

Prof. Brett Van Veller (Iowa State) Boston Univ., Metcalf 113, 4:00 pm

#### October 23

Prof. Alexander Radosevich (MIT)
"Geometric Deformation in the Design of
Organophosphorus Catalysts"
Boston College, Merkert 130, 4:00 pm

Prof. Johnathan Rochford (UMass-Boston) Univ. New Hampshire, Parsons N104, 11:10am

Prof. Brett VanVeller (Iowa State)

"Surfing the excited state energy surface towards new application in Photochemistry" Tufts, Pearson P106, 4:30pm

#### October 25

Prof. Bin Zhang (MIT) Boston College, Merkert 124, 4:00 pm

#### October 29

Malika Jeffries-EL (Boston University) Brandeis, Gerstenzang 121, 3:40 pm

Prof. James Morken (Boston College) Boston Univ., Metcalf 113, 4:00 pm

#### October 30

Strem Lectureship

Prof. Jonas Peters (Caltech)

Boston College, Merkert 130, 4:00 pm

Chemistry and Sustainability Lecture Series Prof. Victor Batista (Yale)

Univ. New Hampshire, Parsons N104, 11:10 am

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

Michael Filosa, email: mpf1952@gmail.com ♦



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