German Exchange Program 2022

Science Educators Celebrating Insect Chemistry

Honoring Our 50-, 60-, 70-Year Members

November Member Spotlight - Ray Lam

November Monthly Meeting: 2022 James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry to Professor Stacy Lowery Bretz, Miami University
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Cover: Stacey Lowery Bretz, University Distinguished Professor of Chemistry, Miami University, Oxford, OH. Photo courtesy of Stacey Lowery Bretz.

Editorial Deadlines: December 2022 Issue: November 1, 2022
January Issue: December 1, 2022
Meaningful Learning, Mindset, and Multiple Representations: Making Measurements in Chemistry Education

Learning chemistry requires students to not only be fluent with the symbols, structures, and mathematics of our discipline, but also to generate explanations using particle models of matter for our observations in the laboratory. Typical classroom assessments reward students for rote memorization rather than meaningful learning, while typical laboratory experiences focus on confirming principles over inquiry and exploration. Our research group designs assessments to measure students’ meaningful learning of chemistry - both in the chemistry laboratory and while reasoning with particle models of matter. Implications for pedagogy and assessment in chemistry classrooms and laboratories will be discussed.

The 1,016th Meeting of the Northeastern Section of the American Chemical Society

Award Presentation of the 70th

James Flack Norris Award

Outstanding Achievement in the Teaching of Chemistry

to Stacey Lowery Bretz

University Distinguished Professor of Chemistry,
Miami University, Oxford, OH

Thursday, November 10th, 2022

Simmons University
300 Fenway, Linda K. Paresky Conference Center
Boston, MA

MEETING AGENDA

4:30 - 5:30 pm  November Board Meeting
5:30 - 6:15 pm  Reception
6:15 - 7:30 pm  Dinner
7:30 pm        Award Ceremony
The James Flack Norris Award is the first national award for outstanding achievement in the teaching of chemistry. Established in 1950 by NESACS to honor the memory of James Flack Norris, Professor of Chemistry at Simmons College (now, University) and the Massachusetts Institute of Technology, and a teacher of great repute, the award recognizes dedicated teachers of chemistry at any level whose efforts have had a wide-ranging effect on chemical education. As such, it is highly fitting that a champion of community college chemistry education be the award recipient this year.

**Monthly Meeting and Norris Award Winner (continued)**

**ABOUT**

The James Flack Norris Award

**PROGRAM**

**Carol Mulrooney**  
Chair, Northeastern Section, presiding

**James Flack Norris - The Man and the Award**  
Introduction of the man behind the award

**Presentation of the James Flack Norris Award**  
Presented by Christine Caputo  
Chair, Norris Award Committee

**Introduction of Norris Award Recipient**  
**Professor Ellen J. Yezierski**  
Director, Center for Teaching Excellence  
Department of Chemistry and Biochemistry  
Miami University

**Norris Award Address**  
**Professor Stacey Lowery Bretz**  
“Meaningful Learning, Mindset, and Multiple Representations: Making Measurements in Chemistry Education”

Guests are welcome at a cost of $35.00

*Black Tie Optional

Please register for you and your guest at:  
https://www.eventbrite.com/e/nesacs-2022-norris-award-meeting-tickets-434210644727
Biography:
Stacey Lowery Bretz is a University Distinguished Professor of Chemistry at Miami University, where she also serves as the Director of Special Projects in the Office of the Vice President for Enrollment Management and Student Success. Born in Sandusky, Ohio, Stacey is a first-gen college graduate. She earned her B.A. in Chemistry from Cornell University (1989), an M.S. in Chemistry from Penn State (1992), and a Ph.D. in chemistry education research at Cornell University (1994). She completed a post-doc in chemistry education research at University of California, Berkeley.

Dr. Bretz is a Fellow of the American Chemical Society (ACS), a Fellow of the American Association for the Advancement of Science, and an ACE Fellow (American Council on Education). Her research group specializes in the development of assessments to characterize students’ understanding of multiple chemistry representations and learning in the chemistry laboratory. She was honored with the 2020 ACS Award for Achievement in Research on Teaching and Learning of Chemistry. She served on the National Research Council Committee on Discipline-Based Education Research, and she chaired the Gordon Conference on Chemistry Education Research and Practice. She is the Immediate Past Chair of the ACS Division of Chemical Education and served as Chair of the Board of Trustees for the ACS Examinations Institute.

Dr. Bretz has been honored with all three of Miami University's highest faculty distinctions: the Benjamin Harrison Medallion, the E. Phillips Knox Award for Undergraduate Teaching, and the Distinguished Teaching Award for Excellence in Graduate Instruction and Mentoring. She has co-authored three chemistry textbooks that feature pedagogy developed from her research, all published by W.W. Norton: two general chemistry textbooks, as well as the first-ever AP chemistry textbook to use an atoms-focused approach.

Stacey has mentored more than 60 post-docs and research students; 15 of her former mentees now teach chemistry at colleges and universities, while another 10 former mentees are successful high school chemistry teachers.

Stacey is married to her high-school sweetheart, Dr. Richard Bretz, and together they have three grown children, Suzannah, Joe, and Mikaela.
Featured Presentation

**Geminal Diheteroatomic Motifs in Drug Design**

By Nick Meanwell

Organized by the Medicinal Chemistry Section of NESACS

**Thursday, November 17, 2022, 4:00 pm**

Register for the September Webinar meeting at:
https://american-chemical-society.zoom.com/webinar/register/WN_nqKdem1JT4-IVw90kB6zUA

Visit: www.nesacs.org/medchem.html

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**Abstract**

Acetals, ketals and their nitrogen and sulfur homologues are often considered to be unconventional structural elements in the design of orally active drugs because of a perception that such motifs might be unstable under the acidic conditions encountered in the stomach and upper gastrointestinal tract. However, there are many orally administered, marketed drug molecules in which geminal diheteroatomic motifs are an embedded element and which includes cyclic and acyclic moieties. Molecules that incorporate geminal diheteroatomic motifs can offer properties that can be advantageous in the design of drug candidates. The chemical properties of geminal diheteroatomic motifs are readily modulated by the judicious deployment of proximal electron-withdrawing substituents, steric effects or conformational restriction that can enhance their chemical stability. In this presentation, we will discuss the prevalence and application of geminal diheteroatomic motifs in orally bioavailable drugs or drug candidates against the backdrop of compound design that is based on an understanding of innate physicochemical properties. In this manner, we hope to dissuade of the notion that such motifs should be shunned as unconventional and problematic.

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**Featured Speaker:**

Nick Meanwell, BMS

**Biography:**

Dr. Nicholas Meanwell is the Scientific Vice President of Discovery Chemistry Platforms, Department of Small Molecule Drug Discovery at Bristol Myers Squibb. Over his 40-year career at BMS, he has led drug discovery programs in the cardiovascular, neurosciences and virology therapeutic areas, research that has resulted in the advancement of 33 clinical candidates for the prevention of thrombosis, the treatment of stroke (MaxiPost®) and therapy for viral infections, including RSV, HIV-1 (RukobiaTM), and HCV (DaklinzaTM, SunvepraTM, XymencyTM). He is an author of more than 270 publications and inventor of 141 issued U.S. Patents. Among many contributions to the med chem community and awards received, he is the current Perspectives Editor for J. Med. Chem, and he was inducted into the 2015 ACS Division of Medicinal Chemistry Hall of Fame, was the recipient of the 2015 Philip S. Portothesis Medal Chemistry Lectureship Award and the 2022 Alfred Burger Award in Medicinal Chemistry.
The eleven students listed in Table 1 were selected to represent NESACS at the 2022 Frühjahrssymposium in Hannover, Germany, March 19-27, as a result of interviews conducted in November, 2021. Unfortunately, Justin Hayes was unable to go on the trip because he tested positive for COVID-19 just before the delegation was to leave on March 19. Of the remaining ten delegates, nine of them and three accompanying others: Jackie O’Neil, Jens Breffke, and Zemen Berhe, flew overnight to Dublin and on to Hamburg, Germany on Sunday. The tenth student, Klaudja Caushi, was not allowed to board the plane to Dublin because she was flying on an Albanian passport that required a special travel visa to enter Ireland. She was rebooked on a Lufthansa flight from Boston to Frankfurt and joined the other delegates in Hannover on Monday.

The main group of delegates was met at Hamburg Airport by Elisabeth Kapatsina of the German Chemical Society (GDCh), who was to be their guide, adviser, and close companion for the week. A charter bus brought them to their hotel in Hannover. That evening the delegates were welcomed by their JungChemikerForum (JCF) hosts at a dinner featuring classic German food and beer.

On Monday morning the delegates (Figure 1) went on a tour of the city of Hannover, led by a tour guide who captivated them with his endless stories and irreverent sense of humor. Among the sites they visited were the Neues Rathaus (New Town Hall, Figure 2), which was completed just before World War I, and Aegidienkirche, a church that was built in 1347, heavily

Eleven students were selected for the 2022 trip to Germany:

Hannah Marie Boyce
Northeastern University

Klaudja Caushi
U. Mass Boston

Sarah Chachula
Dartmouth College

Cathlene Nicole Balacanao
Del Rosario
Boston University

Daniel Joseph Donnelly III
Northeastern University

Justin, A. Hayes*
Northeastern University

Bailey Jo McLernon
Boston University

Caroline Chambers Millard
Northeastern University

Brandon Miller
Northeastern University

Ndidiamakai Obi
Boston University

Ryan Michael Tipker
Dartmouth College

*Unable to travel due to a COVID-19 infection.
damaged in an air raid in 1943, and left in ruins as a war memorial (Figure 3).

After an afternoon of free time on Monday, delegates toured the campus of Leibniz University on Tuesday morning, visiting many chemistry research labs and an ornate lecture hall in the Institute for Inorganic Chemistry (Figure 4).

Tuesday afternoon was spent on a guided tour of the magnificent Herrenhäuser Gardens. Though the gardens lacked much of their warm weather color and greenery, delegates enjoyed the sculptured evergreens, magnificent buildings and monuments, and interacting with the gilded statues (Figure 5).

Wednesday morning began with a guided tour of the Sprengel Museum, which holds one of the most significant collections of modern art in Germany (Figure 6). The tour was followed by the first of several visits by the delegates to a COVID-19 test center prior to checking in at the Frühjahrssymposium. That afternoon they enjoyed coffee and cake with the JCF executive board, and that evening attended a networking event hosted by Covestro AG.

Thursday and Friday mornings began with more COVID-19 tests followed by full days of Frühjahrssymposium technical programing. Most of the delegates presented their research in poster sessions; however, the JCF program committee had selected Klaudja Caushi and Ryan Tripker to give oral presentations (Figure 7).

On Friday evening delegates had the opportunity to sample Hannover night life (Figure 8) by participating in a growing Frühjahrssymposium tradition: the bar crawl. As one delegate put it: 'It was such a delight to be able to talk with people in a casual setting where I could connect with them on a more personal level. It was also fun to share laughs and drinks together!'

The symposium ended at midday on Saturday. During the closing ceremony the symposium organizers noted that the theme of
the Frühjahrssymposium 2022 had been ‘Communicating the Future’. In support of that theme, they judged all the oral presentations to determine which one made the best use of visual technology. They presented their Best Jif of Them All Award to NESACS delegate Ryan Tripker (Figure 9).

Saturday evening the NESACS delegates were the guest of the JCF at a formal farewell dinner (Figure 10). Unfortunately, by then Dan, Zemen, and Jens had tested positive for COVID-19 and were in isolation at the hotel. Jackie O’Neil took the lead in providing them food and OTC medicine and in making them comfortable.

On Sunday the healthy student delegates scheduled to return to Boston did so, and those with extended stays went on to their next destinations before returning to Boston between March 31 and April 2. Also on Sunday, Jackie and Jens rented a car and drove themselves, Dan, and Zemen to Jens’ parent’s home in Berlin. Fortunately, his parents were traveling at the time and the house was vacant.

For many days Jackie cared for her COVID-19 patients (Figure 11) until they tested negative. As they did, Dan flew home and Zemen traveled to see her family in Stuttgart as she had originally planned to do. After Jens tested negative, he and Jackie flew back to Boston on Monday, April 11. Ironically, after managing to stay healthy for the entire trip, Jackie tested positive on April 12.

Following their return to Boston the student delegates presented their research at the 23rd Annual Northeast Student Chemistry Research Conference hosted by the Northeastern Section Younger Chemist Committee in a virtual format on April 23. Afterward, it was announced that Hannah Boyce had won the Outstanding Oral Presentation Award.

The delegates were also asked to submit brief reports in which they reflect on which of their experiences during the trip to Hannover were most memorable and why. Below are excerpts from these reports.

**Delegates’ Comments**

My trip was a hodgepodge of experiences interrupted by a COVID-19 infection. Nevertheless, I enjoyed several days before and after my required self-isolation that now serve as memories dear to me. They include the strong connections that I made with my fellow delegates through conversations and laughter with every member of our team. It was a wonderful feeling to be among such incredible peers who all shared an appreciation for chemistry and globalism.

One experience that stood out for me was the bar crawl. After a wonderful day of hearing and talking about science in various formats (expos, talks, posters), I was very tired. However, our German hosts insisted (in the most friendly way) that we join them on the bar crawl. I am so glad I did! It was a delight to talk with people in a nonconference setting, to have conversations with students from Germany and surrounding countries, and with people working in industry from across Germany. I loved this chance to connect with...
Figure 4: (a) Delegates’ tour of Leibniz University included this one and many other research labs and (b) a staged lecture in the impressive Kali-Chemie-Hörsaal.

Figure 5: (a) Most of the trees in Herrenhäuser Gardens had yet to leaf out; (b) however, Hannah Boyce and Caroline Millard enjoyed interacting with two of the many gilded statues.

Figure 6: (a) Wednesday morning was spent gaining an appreciation for modern art at the Sprengel Museum (b) followed by the first visit to the COVID-19 test center.
people on a more personal level. I was also thoroughly impressed by the grad students who organized the conference! It was very high quality – the organization, the speakers, the industrial sponsors, the venue, the attention to detail (especially with things changing daily due to COVID-19), and the endless supply of coffee. I am so grateful to have been able to participate!

Being a NESACS delegate was a once in a lifetime experience that I will never forget. Getting to not only communicate my science internationally but connecting with other scientists was amazing.

Figure 7: Oral presentations of (a) Klaudja Caushi and (b) Ryan Tripker

Figure 8: Hannover after dark
Although there were some bumps in the road due to COVID-19, this trip was overall successful, and I am ecstatic I got to be a part of it.

One moment I remember fondly was having lunch with the JCF executive board and the president of the GDCh. It was so impactful to have one-on-one conversations with other students/leaders in the German chemistry community and learn about what their research experiences.

I really enjoyed the wide variety of science that was presented throughout the conference. As I was walking around the poster session, I noticed that I was one of few (if not the only) person doing research in my field. I loved being exposed to different fields of chemistry that I would not have seen at a regular conference.
For me the trip was a 10/10. I had a great time. The sightseeing days were a perfect balance of free time and scheduled events. Our JCF hosts were all so helpful and friendly and great sources of information about the conference. Every student I met at Frühjahrssymposium was extremely nice and had great science to share. My fondest memories of the trip include Jens’s spontaneous acts of German hospitality, touring the Leibniz University labs, the Hannover fun facts city tour, networking during the first evening of the Frühjahrssymposium, and the bar crawl with German students.

My trip to Germany was an amazing experience. It was well organized, and I never felt out of place even though I was in another country. I very much appreciated the warm welcome we received from our German hosts. I really enjoyed the variety of oral presentations. Although the drug discovery talks most closely aligned with the work that I do, I found the talks focused on other areas of chemistry interesting and enlightening, too. I don't often get a chance to hear what is going on in other areas of chemistry.

The student exchange trip to Hannover was the first time I had visited Europe, and the Frühjahrssymposium was my first in-person conference. Little did I know the experience would leave a lasting impression on me for my career and my life. Meeting, conversing with, and getting to know fellow chemists was incredible. If I had to choose a favorite part of the trip, it would be the farewell dinner because it included members of the JCF board that I had not talked with beforehand. Another delegate and I stayed in the restaurant for several hours drinking beer and talking with the organizers about our different cultures, traveling to Europe, and the challenges of running an in-person conference during a pandemic. I very much enjoyed being a NESACS delegate, and I hope I can return the favor by helping to host a JCF delegation in Boston.

Photos were provided by Brandon Miller and Jackie O’Neil.

Figure 11: COVID-19 patients Dan, Zemen, and Jens recover at Jens’s parent’s home in Berlin.
Chemists Celebrate Earth Week (CCEW) activities were a significant part of Rise Up Boston: A Climate Event at the Museum of Science (MoS), Boston on April 30 and May 1, 2022. CCEW events were planned from 10.00 am - 3.30 pm on both the days (https://www.mos.org/rise-up-boston). During this event, MoS offered diverse experiences capturing global and local impacts of climate change. These opportunities educated visitors about the impacts of changing climate and highlighted how each person can act individually and collectively towards the better health of our planet.

CCEW event was a collaboration between Salem State University (SSU), Northeastern Section of American Chemical Society (NESACS), and Museum of Science (MoS). About 20 motivated and committed science educators from Salem State University engaged young visitors with four hands-on chemistry activities related to this year’s theme “Insect Chemistry.” It was heartwarming to have students who had graduated from SSU a few years ago as returning science educators during the event. About 300 visitors participated in these CCEW activities. Activities related to this year’s theme included making bug dye, demonstrating cabbage juice indicator, testing your smelling senses, creating your own iridescent nano films, and presenting No-Mow-May campaign poster.

During the making bug dye activity, cochineal bug parts were crushed in the mortar and transferred to 3-part petri dish. Visitors were asked to add drops of vinegar and add drops of soda ash into the parts of a petri dish. The colors
were compared to the original color of the crushed cochineal dye, and the pH of solutions from each of the parts of petri-dish were tested. The color changed to red when vinegar was added and turned to violet when soda ash was added. This activity demonstrated that various color dyes could be prepared using natural resources such as bugs.

During the cabbage juice indicator activity, cabbage juice solution was added into several wells of the well plates tray. Visitors were encouraged to add drops of household solutions such as vinegar, baking soda solution, lemon solution, water, and soap solution into these wells containing cabbage juice. The colors were compared to the original color of the cabbage juice solutions, and the pH of solutions in each of these wells were tested. The color of the solutions changed as various household solutions were added. This activity visually demonstrated how cabbage juice can serve as an indicator when the pH of the solutions changed.

During the testing your smelling senses activity, visitors were encouraged to smell spearmint and caraway from their respective essential oils. Next, they were encouraged to study the models of mirror images presented on the table. The visitors were asked to build the same models using mini magic nuudles and black chenille stems. This activity demonstrated the connection between the right/left handedness of molecules and the properties exhibited by these molecules.

During the creating your own iridescent nano films activity, nano films were created on a strip of black paper. Visitors were encouraged
to write their names or create art including drawing insects on a sheet of black paper using a marker. These sheets of paper were dipped in water and a drop of nail polish was added onto the surface of water and the thin film was collected on the sheet of paper. This colorful film activity demonstrated the concept of iridescence responsible for beautiful colors in peacock feathers, thin film solar cells, and wings of the blue morpho butterfly.

Visitors at the MoS were engaged in a No-Mow-May campaign through a poster (https://www.thebedfordcitizen.org/2021/05/garden-week-day-two-no-mow-may). This poster demonstrated how not mowing in May, or partially mowing the lawn in May, or growing more pollinating gardens in May can aid our hungry early pollinators (https://www.thebedfordcitizen.org/2022/05/no-mow-may-pledge).

To promote pollinator gardens, about 150 wildflower seeds were given away to MoS visitors to help early pollinators. The campaign during the current CCEW event was featured in an article on CCEW 2022 events in C&EN (Chemistry & Engineering News) June issue (https://cen.acs.org/acs-news/Local-sections-participate-Chemists-Celebrate/100/i23). This campaign was also promoted at the local Bedford (https://www.thebedfordcitizen.org/2022/05/no-mow-may-pledge) and Salem State University communities through local newsletter and SSU faculty & staff news what’s new/what to do listmail.

As a coordinator, I received 250 copies of Celebrating Chemistry newsletters in English as well as 250 copies in Spanish. I personally
delivered copies of these to the children's section at several libraries including Bedford Public Library, Billerica Public Library, Burlington Public Library, Salem Public Library, and Girls Inc. in Lowell. These organizations/institutions were thrilled to receive color copies of Celebrating Chemistry.

NESACS also participated in the CCEW-2022 Illustrated Poem contest. The winning poetry from Simran Tamang (Everett High School) in the 9-12 category demonstrated creativity and portrayed the important role played by insects towards pollination. Simran's winning poem and her photograph with her certificate is presented below.

Simran Tamang and her teacher Diane Perito received basic one year Museum of Science, Boston membership. Congratulations to the winner and the teacher. Keep up the great work!

Thank you CCEW science educators for your passion towards STEM outreach! I am deeply indebted to Emily Hostetler from Museum of Science, Boston for making this event happen. Her commitment towards NESACS's outreach events is greatly appreciated.

Stay tuned for NESACS's 2022 National Chemistry Week (NCW) events. This year’s theme for NCW is Fabulous Fibers: The Chemistry of Fabrics. Looking forward to seeing you all at the NCW events.
Science Educators Celebrating Insect Chemistry (continued)

Cabbage juice as a pH indicator draws a big crowd of young scientists
Science Educators Celebrating Insect Chemistry (continued)

Young scientists test their smelling senses
Science Educators Celebrating Insect Chemistry (continued)

Creativity is encouraged with iridescent nano film
Science Educators Celebrating Insect Chemistry (continued)

Grow More May seed packets featured at No Mow May at Rise Up Boston at CCEW
Science Educators Celebrating Insect Chemistry (continued)

The Celebrating Chemistry newsletter featured both English and Spanish language versions

- The flower blooms bright
- Pollination occurs:
  - For a bumblebee is on sight
- An array of blossoms to show
- Fertilization transpires:
  - For strawberries are yet to grow
- With gratitude to bumblebees
- Spring arrives:
  - For the farmers enjoy berries with glee

CCEW Illustrated Poetry Contest (Grade 9-12 category) award-winning entry and awardee Simran Tamang
Honoring our 50-, 60-, and 70-Year Members

The Northeastern Section of the American Chemical Society congratulates the following ACS members on celebrating these milestone anniversaries. We are extremely grateful for the service these ACS members have provided to the chemistry community over the years. Thank you for your commitment!

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<td>Mr. William Harlie Bearden NH</td>
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THE NUCLEUS | November 2022  23
Member Volunteer Spotlight: Ray Lam

Interviewed by: Brittany Rauzan

Ray Lam is an Associate Professor at Massachusetts Maritime Academy. Since 2015 Ray has served as the chair for National Chemistry Week (NCW).

In this Member Volunteer Spotlight, learn more how Ray became involved in volunteering as part of the NCW, opportunities for mentorship, and advice to others interested in volunteering for NCW.

How did you become involved in volunteering for NCW?

Ray: It all started when I was an adjunct faculty at Emmanuel College. My department chair, Dr. Christine (Chris) Jaworek-Lopes, was the NCW chair back then. I casually asked one day whether there was anything I could help with NCW and that’s how I started volunteering at outreach events. A year or two later, she was looking for someone to pass the NCW torch to so she can be involved with other positions at NESACS and I thought I’d give it a shot. Chris showed me the ropes on how to organize the events and it was around that time that she got very sick. Chris never let her health issues get in her way, and she remained positive, courageous and passionate about outreach programs right up until her unfortunate passing. It was with a heavy heart that I took over organizing NCW and have been doing that ever since.

For NCW, did you have a mentor and/or do you serve as a mentor to others participants in this program?

NCW was a well-oiled machine when I took over and Chris was a great mentor; showing me all the different tasks that needed to be done for a successful event. I cannot stress enough how much of an impact she has made. She also left me in great hands; our NESACS board of directors have been very supportive and our collaborators at the Museum of Science, Boston and Boston Children’s Museum are godsend. I couldn’t have done any of it without them. For that, I’m truly thankful.

What has been the most rewarding / exciting component of volunteering for NCW?

The excitement in our young visitors’ eyes when they get their hands-on experience at NCW is priceless. I distinctly remember overhearing a young museum visitor, who I saw at our NCW activities table earlier on, talking excitedly with his parents, screaming “I love chemistry!” That right there makes all the work and stress worth it.

What advice would you give to other individuals considering volunteering for NCW?

Things are bound to go wrong, learn to go with the flow. The event does not need to be perfect for it to be successful. There will be stressful moments, don’t give up. Focus on the big picture, push through. I promise the smiles and excitements on our visitors’ faces are well worth it.
On August 31 NESACS members attended an informal coffee meet and greet with 4th District Rep. Jake Auchincloss in Newton. A wide range of issues was addressed, including water resource accessibility, the Environmental Voter Project, utilizing wind energy, and academic researchers’ pay. Congressman Auchincloss represents one of the largest scientific communities in the nation and was knowledgeable on the topics, stressing the importance of scientific advancement in many different areas. NESACS representatives present at the meeting were Dr. Doris Lewis, chair of the NESACS Government Relations Committee and Caroline Millard, Northeastern University PhD candidate and NESACS Government Affairs Committee policy liaison.

By Doris Lewis

Fourth District Congressman Jake Auchincloss, NESACS Government Relations Committee Chair Doris Lewis, and NESACS policy liaison Caroline Millard.

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The 2023 ACS National Awards were presented on Tuesday, March 28, 2023, during the ACS Spring 2023 meeting in Indianapolis. The following awards were presented to professionals located at academic institutions located within NESACS. The Nucleus would like to congratulate these winners and we wish them much success in the future.

ACS Award in Applied Polymer Science, sponsored by Eastman Chemical, Mark W. Grinstaff, Boston University

ACS Award in Colloid Chemistry, sponsored by Colgate-Palmolive, Joanna Aizenberg, Harvard University

Ronald Breslow Award for Achievement in Biomimetic Chemistry, sponsored by the Ronald Breslow Award Endowment, Laura L. Kiessling, Massachusetts Institute of Technology

M. Frederick Hawthorne Award in Main Group Inorganic Chemistry, sponsored by the M. Frederick Hawthorne Award Endowment, Christopher C. Cummins, Massachusetts Institute of Technology

The full list was published in the September 12, 2022, issue of C&EN, pp. 44-45. This list can also be accessed here: https://cen.acs.org/people/awards/ACS-2023-National-Award-winners/100/i32
ACS announces the launch of a new benefit for all members of the ACS Community, the ACS Link, which can provide you with a new way to connect with over 151,000 people around the world. This service, which has been recently introduced, is automatically included in your current benefits package. More than just a networking platform, ACS Link is a portal to expert knowledge from your fellow ACS Members. Here’s how ACS Link works:

- **To start, simply ask a question!** You can post questions about a wide range of topics, such as academics, career paths, business development, science, laboratory issues, and more. There's no need to create a user name or password; ACS Link automatically recognizes you as being a part of ACS.

- **Once you ask a question, ACS Link privately matches you with people in the ACS Community who have the expertise to address your inquiry.** They will respond on a one-to-one basis, so you can get private, personalized answers, while, at the same time, expanding your professional network.

- **You can also share your knowledge and experience by answering questions from the community directly from your own e-mail inbox.**

- **If you decide that ACS Link is not for you,** simply opt out of the service by clicking “unsubscribe” when you receive an e-mail from ACS Link.

ACS hopes that you will enjoy this new benefit, and will find it to be useful and valuable for seeking out answers to questions related to employment, technical issues, education, research, etc. Please send any inquiries to ACSLink@acs.org or Membership Services at service@acs.org.

For more information about ACS Link, go to https://www.acs.org/content/acs/en/membership/acs-link.html.

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“Education is the key to unlock the golden door of freedom”

–George Washington Carver
NERM 2023 is likely be the largest and, we hope, most significant conference in chemistry and related disciplines in the Northeast in the foreseeable future.

NERM Meeting & Exposition attracts chemists, chemical engineers, academics, graduate and undergraduate students, and other related professionals.

Chemistry: Crossing Intersections, will be reflected in the technical program featuring research that crosses and transcends the traditional boundaries of chemistry and chemical engineering.

ACS Northeast Regional Meeting 2023
Chemistry: Crossing Intersections
June 14 - 17, 2023
Northeastern University, Boston MA

Learn more at https://2023.nermconference.org

For additional information or custom packages contact NERM 2023 via email: nerm2023@nermconference.com
### NERM 2023 PRICE LIST FOR GENERAL AND PRESENTING SPONSORSHIP

<table>
<thead>
<tr>
<th>Item</th>
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### NERM 2023 PRICE LIST FOR SPECIAL SPONSORSHIPS

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<tr>
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<td>Lunch workshops</td>
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<tr>
<td>Student/Special Group Travel Support</td>
<td>$2,000</td>
<td>✓ Support Travel Costs of Students or Special Groups</td>
</tr>
</tbody>
</table>

For additional information or custom packages contact
NERM 2023 via email: nerm2023@nermconference.com

Northeastern University
The 2023 Northeast Regional Meeting of the American Chemical Society (NERM 2023) will be held from Wednesday to Saturday, June 14-17, 2023. The meeting will be hosted by the Northeastern Section of the ACS with most of the technical sessions and special events to be held at Northeastern University in Boston.

The theme of the meeting, *Chemistry: Crossing Intersections*, will be reflected in the technical program featuring research that crosses and transcends the traditional boundaries of chemistry and chemical engineering. For example, there will be symposia on sustainable syntheses and processes, chemistry in the life sciences, the digital world of chemistry, chemistry advancing industry, chemical education research, and communities within chemistry. NERM 2023 will feature poster sessions highlighting student research, workshops designed by and for high school chemistry teachers, a graduate school fair, an Exposition featuring a Career Navigator LIVE job fair, professional development workshops, an Awards Banquet, and much, MUCH more!

**Call for NERM 2023 Symposia.** Proposals for symposia aligned with the meeting theme are due November 4, 2022. We encourage all interested chemists and chemical engineers to submit symposium proposals on cross-disciplinary topics such as those described above. We are especially interested in receiving proposals that include a diverse group of presenters and session chairs.

To submit a symposium proposal, please go to our website at: [https://2023.nermconference.org](https://2023.nermconference.org). If you have any questions about NERM 2023 please contact the organizers at nerm2023@nermconference.org.

On behalf of the NERM 2023 Organizing Committee and NESACS, we look forward to your participation in this event. 

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**ACS Spring 2023**

Crossroads of Chemistry

Indianapolis, IN
March 26 - 30
In-Person & Virtual

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These include:

- **Boston College**
  https://www.bc.edu/content/bc-web/schools/mcas/departments/chemistry/news-and-notes.html#events

- **Boston University**
  https://www.bu.edu/chemistry/seminars/colloquium

- **Brandeis University**
  https://www.brandeis.edu/chemistry/events.html

- **Harvard University**
  https://chemistry.harvard.edu/calendar/upcoming

- **MIT**
  https://chemistry.mit.edu/events

- **Tufts University**
  https://chem.tufts.edu/news-events/events

- **UMass Boston**
  https://www.umb.edu/academics/csm/chemistry/events

- **UMass Lowell**
  https://www.uml.edu/sciences/chemistry/colloquia.aspx

- **University of New Hampshire**
  https://ceps.unh.edu/chemistry/seminars/fall-2022-seminar-series

### NOVEMBER 2022

#### November 2
- **Prof. Jihun Oh** (Korea Adv. Inst. Sci. & Tech.)
  BC, Merkert 130, 4:00 pm
- **Prof. Ellen Sletten** (UCLA)
  Tufts, P-106, 12:00 pm

#### November 3
- **Prof. Neil Garg** (UCLA)
  Transforming organic chemistry education through community and innovation
  Harvard, Pfizer lecture hall, 4:15 pm
- **Prof. Hiroaki Suga** (Univ. Tokyo)
  Rapid development of pseudo-Neutral peptides/products and neobiologics
  MIT, Rm 6-120, 4:00 pm

#### November 7
- **Prof. Andrés Montoya-Castillo**
  (Univ. Colorado Boulder)
  BU, 11:15 am

#### November 9
- **Prof. Paul Weiss** (UCLA)
  BC, Merkert 130, 4:00 pm
- **Dr. Jennifer Petter** (Arrakis Therapeutics)
  Tufts, Rm P-106, 12:00 pm

#### November 10
- **Prof. Julia Kalow** (Northwestern Univ.)
  MIT, Rm 6-120, 4:00 pm

#### November 11
- **Prof. Julia Kalow** (Northwestern Univ.)
  Mechanism guided discovery of photocontrolled materials and reactions
  BC, Merkert 130, 4:00 pm

#### November 14
- **Prof. Steve Malcolmson** (Duke Univ.)
  BU, 11:15 am

#### November 15
- **Prof. Peng Liu** (Pittsburgh)
  Computational studies of catalytic C-H and olefin functionalization
  BC, Merkert 130, 4:00 pm
- **Prof. Jacqueline K. Barton** (Caltech)
  Harvard, Pfizer lecture hall, 4:15 pm

#### November 16
- **Prof. Bryan Dickinson** (Univ. Chicago)
  Evolving and engineering biomolecular interactions to retune biology
  BC, Merkert 130, 4:00 pm
- **Prof. John Montgomery** (Univ. Michigan)
  Tufts, Rm P-106, 12:00 pm

#### November 17
- **Prof. Nathalie de Leon** (Princeton)
  Harvard, Pfizer lecture hall, 4:15 pm

#### November 21
- **Prof. Rick Young** (MIT)
  MIT, Rm 32-123, 4:00 pm

#### November 22
- **Prof. James Checco** (Univ. Nebraska Lincoln)
  Exploring cell-to-cell signaling through endogenous peptide-reception interactions
  Tufts, Rm P-106, 4:30 pm

#### November 30
- **Prof. Stephen Fried** (Johns Hopkins)
  Tufts, Rm P-106, 12:00 pm

#### December 1
- **Prof. Xiaoyang Zhu** (Columbia Univ.)
  Harvard, Pfizer lecture hall, 4:15 pm

#### December 6
- **Prof. Quentin Michaudel** (Texas A&M)
  BC, Merkert 130, 4:00 pm

#### December 12
- **Prof. David Britt** (Univ. California Davis)
  Harvard, Pfizer lecture hall, 4:15 pm

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**Notices for The Nucleus Calendar should be sent to:** Samurdhi Wijesundera, Email: samu.amameth@gmail.com