



Benjamin F. Cravatt, Ph.D.
2025 William H. Nichols Medalist
See page 10



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North Jersey



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EDITORIAL DEADLINES

April 2025	March 16, 2025
May 2025	April 16, 2025
June 2025	May 16, 2025
September 2025	August 16, 2025
October 2025	September 16, 2025

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THIS MONTH IN CHEMICAL HISTORY

Harold Goldwhite, California State University, Los Angeles • hgoldwh@calstatela.edu

In this column I conclude looking back at the new chemistry of 100 years ago as reflected in the pages of The Chemical Society's Annual report for 1925 (Volume XXII) published in London in 1926. In my two previous columns I looked at aspects of inorganic and organic chemistry. I start this column with a look at crystallography. One of the reporters on this topic was Sir William H. Bragg, Nobel Laureate and a pioneer, along with his son and co-Nobel Laureate, of X-ray crystallography. We all know Braggs' Law.

The chapter on crystallography begins with a tribute to the Russian crystallographer Professor F. von Fedorov who died of starvation as a consequence of the Russian Revolution. This great scientist proved the possibility of 230 types of crystal structure. His major opus was only published posthumously: The Crystal Kingdom (1050 pages plus an atlas) was published in Russia in 1920, but only became available in the West in 1925.

Further work on the structures of quartz have clarified the distinction between alpha and beta forms. Quartz plays a significant role in the history of crystallography. In 1669 Steno established in quartz the law of Constancy of Angles between faces. In 1811 Arago discovered in quartz the phenomenon of optical activity and Biot discovered the variation of optical activity with the wavelength of light. In 1822 John Herschel showed that dextrorotatory quartz crystals are mirror images of levorotatory crystals. Now X-ray analysis has shown that alpha quartz, the low temperature form that changes to beta quartz when heated above 575°C, is only a slightly distorted form of the beta type.

X-ray studies of cellulose have shed light on its structure. It may consist of two phases: an amorphous phase in which crystallites are embedded. The dimensions of the crystallites have been determined. Mercerized cellulose, cellulose treated with concentrated sodium hydroxide solution to generate a textile fiber, has crystallite dimensions greater than those in native cellulose.

Turning to molecular structures solid carbon dioxide is cubic. The unit cell contains four molecules and it is concluded that the three atoms are colinear. Solid ammonia is also cubic and the unit cell contains four molecules. Three hydrogen atoms must be arranged trigonally about each nitrogen atom but probably do not lie in the same plane as the nitrogen atom.

X-ray analysis of metallic manganese has proved to be unusually difficult. It turns out that this is because it is a mixture of three allotropes., One form is obtained pure by electrolytic deposition and is face-centered tetragonal. The most stable form at room temperature is cubic with 56 atoms in the unit cell. A third form is also cubic. It has been established that carbon dissolves in manganese interstitially.

X-ray powder photography of solid ethane and solid diborane establishes that they must be structurally similar. "...boron in diborane, like carbon in ethane, functions as a quadrivalent element. ... The molecules in the crystals correspond to the ordinary chemical molecules."

Turning to a new subject for these "Annual Reports" there is under the more general heading of "Mineralogical Chemistry" a section on "Geochemistry". It begins with a comment that Bischof's seminal work on "Chemical Geology" dating from 1847 (!) seems to have been almost forgotten but there has been a recent revival of interest in the topic with the publication of English, French, and Russian works on the subject. A new paper from the U.S. Geological Survey calculates the average composition of the earth's solid crust to a depth of 10 miles, including both the atmosphere and the hydrosphere, in percentages as: O, 49.5; Si, 25.8; Al, 7.5; Fe, 4.7; Ca, 3.4; Na, 2.6; K, 2.4; Mg, 1.9; H, 0.9; Ti, 0.6; Cl, 0.19; P, 0.12; C, 0.087.....etc. So 99.5% of the crust is made up of thirteen elements and other than silicon of few rock-forming elements.

THIS MONTH IN CHEMICAL HISTORY (continued)

A consideration of the compositions of rocks and meteorites, together with the velocities of earthquake waves at various depths, gives a picture of the internal structure of the earth. It has a central core of nickel and iron about 3400 km. in diameter. Above this is a lithospheric shell, made up of patches of silicates in a metal matrix, about 700 km. thick; then comes an iron in rock shell about 700 km. thick; a peridotitic shell of about 1540 km. thick; a basaltic layer of only 40 km. thick; and finally a surface granitic crust of 20 km. thickness.

Examinations of the compositions of meteorites and the earth's crust have disclosed the following principle – “there is a preponderance of elements of the helium atomic group, namely those with atomic weights divisible by 4 and up to atomic number 28 (Ni)”. A new meteorite recently discovered in West Africa is 100 meters in length and 40 meters in width. It is about 80 % metal and 20% silicates.

New investigations on the compositions of tektites still leave unsettled the problem of their origins. Those found in Bohemia are of clear green glass and some researchers believe they are relics of ancient glass industries. Those found in Australia resemble obsidian, the volcanic glass, but there are no recent volcanoes in Australia. Many researchers now believe these tektites are meteoritic. Their composition is puzzling; they are very high in silica, up to 90%, unlike volcanic glasses or any other meteorites.

In the period 1922 – 1925 211 new mineral names, not necessarily new minerals, have entered the literature.

This concludes my cursory look at the chemical highlights of a century ago. I hope to be able to continue this series in about a year's time with a look back at 1926.

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March Calendar

NORTH JERSEY SECTION**Wednesday, March 19, 2025**

North Jersey Executive Committee Meeting
See page 6

Friday, March 21, 2025

North Jersey ACS Chromatography Group
See page 6

SAVE THE DATE**Saturday, April 26, 2025**

Chemists Celebrate Earth Week
See page 6

Wednesday-Saturday, May 28-31, 2025

MARM 2025
See page 7

NEW YORK SECTION**Thursday, March 6, 2025**

Long Island Subsection
See page 16

Saturday, March 8, 2025

The Chemistry of Love
See page 15

Wednesday, March 12, 2025

Westchester Chemical Society
See page 17

Monday, March 31, 2025

New York ACS Board of Directors Meeting
See page 9

SAVE THE DATE**Friday, April 11, 2025**

William H. Nichols Distinguished Symposium
and Medal Presentation Ceremony
See page 10

Friday, April 18, 2025

Hudson-Bergen Chemical Society
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NORTH JERSEY SECTION MEETINGS

2025 NORTH JERSEY ACS EXECUTIVE COMMITTEE MEETINGS

2025 North Jersey ACS Chair Robert Menger and the Executive Council welcome you to our monthly NJACS meetings. The meetings are normally held on the second **Wednesday from 6:30 pm to 8:30 pm**. All members are welcome to attend and become more involved in section activities. The dates for 2025 are, as follows:

Wednesday, March 19, 2025 (virtual)

Wednesday, April 16, 2025 (hybrid)

Wednesday, May 21, 2025 (hybrid)

Wednesday, June 18, 2025 (hybrid)

Wednesday, September 10, 2025 (hybrid)

Wednesday, October 15, 2025 (hybrid)

Wednesday, November 12, 2025 (virtual)

2026 Planning Meeting in December, TDB

For links to the virtual meetings and RSVP for in-person attendance at hybrid meetings, please see our [Section Calendar](#).

CHEMISTS CELEBRATE EARTH WEEK: SAVE THE DATE



SATURDAY APRIL 26, 2025

At the **Thomas Edison National Labs** in *West Orange, New Jersey*

The **North Jersey ACS Section** along with the **Park's Rangers**

Investigate

This year's theme for CHEMISTS CELEBRATE EARTH WEEK

There will be give aways, activity booklets and hands on activities including Glacier building!

Specifics will follow!



Abstract Submission now open!

<https://marm2025.com/>

The Mid-Atlantic Regional Meeting (MARM) of the American Chemical Society (ACS) will be held May 28-31, 2025, at Seton Hall University in South Orange, New Jersey. At this meeting we will celebrate the 100th Anniversary of the North Jersey Section of the ACS. Come help us celebrate!

Plenary and Keynotes from:



Prof. Morton Meldal
University of Copenhagen



Dr. Phaedria St. Hilaire
ProWoC



Dr. Rebecca Ruck
Merck & Co.

Opportunities to highlight your work, to network with colleagues, to hear about cutting-edge research and to attend workshops in Green Chemistry, Safety, and Professional Development.

Submissions open until March 3, 2025

MARM AWARDS FOR 2025**STANLEY C. ISRAEL REGIONAL AWARD FOR ADVANCING DIVERSITY IN THE CHEMICAL SCIENCES**

Recognizes individuals and/or institutions who have advanced diversity in the chemical sciences and significantly stimulated or fostered activities that promote inclusiveness within the region. This award is sponsored by the ACS Committee on Minority Affairs.

DUE MARCH 1, 2025[Learn more](#)**WILLIAM "BILL" SUITS UNDERGRADUATE MIDDLE ATLANTIC REGION AWARD FOR OUTSTANDING STUDENT VOLUNTEER SERVICE TO THE ACS**

Recognizes an outstanding undergraduate student who has provided exemplary volunteer service in the Mid-Atlantic Region of the ACS. Academic records, volunteer service in the region, and a student's application statement will be considered.

DUE MARCH 8, 2025[Learn more](#)**E. ANN NALLEY REGIONAL AWARD FOR VOLUNTEER SERVICE TO THE AMERICAN CHEMICAL SOCIETY**

Recognizes the volunteer efforts of individuals who have served the American Chemical Society, contributing significantly to the goals and objectives of the Society through their regional activities.

DUE MARCH 8, 2025[Learn more](#)**E. EMMET REID AWARD IN CHEMISTRY TEACHING AT SMALL COLLEGES IN THE ACS MIDDLE ATLANTIC REGION**

Recognizes, encourages and honors high quality and outstanding achievements in teaching and research at small colleges in Middle Atlantic Regional Meeting (MARM) of the American Chemical Society. Nominations for the Award are made by the Local Sections of the Middle Atlantic Region.

DUE MARCH 8, 2025[Learn more](#)**ACS DIVISION OF CHEMICAL EDUCATION (CHED) REGION AWARD FOR EXCELLENCE IN HIGH SCHOOL TEACHING**

Recognizes, encourages, and stimulates outstanding teachers of high school chemistry in the Middle Atlantic Region. The Region Award consists of a cash award and a plaque. The nominee must be actively engaged in the teaching of chemistry or a chemical science in a high school (grades 9-12) on at least a half-time basis.

DUE MARCH 8, 2025[Learn more](#)

NEW YORK SECTION MEETINGS

<http://www.newyorkacs.online>

2025 BOARD MEETING DATES

The New York ACS Board of Directors meetings dates for 2025, are, as follows:

Monday, March 31, 2025 (virtual)

Friday, April 11, 2025 (in person)

William H. Nichols Distinguished
Symposium and Medal Award Ceremony
St. John's University

Monday, June 9, 2025 (virtual)

Monday, September 8, 2025 (virtual)

Monday, November 3, 2025 (hybrid)

These meetings will be held online via Zoom with several hybrid meetings from the campus of Pace University – New York City Campus ([directions](#)). These meetings are open to all members, however, an RSVP for in-person attendance is required 5 days before the meeting, *i.e.* the Wednesday before the Monday meeting. All members who would like to attend any of the meetings should inform the New York Section office by emailing [Ms. Bernadette Taylor](#). Prof. Eric Chang will Chair all meetings. The meetings will start at precisely 6:30 PM.

SEMINAR SPEAKERS WANTED

The New York Section wants to add to our Speakers Bureau database of local speakers who are available for Section-wide seminars and symposia. If you have an area of research or interest that would provide an interesting talk appropriate for our Section members, and would like to be included in our Speakers Bureau, please send an email to [Ms. Bernadette Taylor](#) with the following information that will be posted on the Section's website: your name, affiliation, a seminar title, and 5-6 words briefly summarizing your area of specialty. We look forward to hearing from you about topics that you wish to share with your fellow members!

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COMMITTEE ON THE HISTORY OF THE NEW YORK LOCAL SECTION

The New York Section has participated in the designation of seven National Historic Chemical Landmarks and four New York Section Historic Chemical Landmarks, as detailed on its [website](#). These landmark programs recognize achievements in the chemical sciences and related areas, in order to enhance public appreciation for the contributions of the chemical sciences to modern life.

Please consider making a nomination for a historic chemical landmark - be it an achievement, a building or association. Send your nomination, with supporting documentation, to [Dr. Neil Jespersen](#), Chair, Committee on the History of the NY Section.

2025 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & AWARD PRESENTATION**ADVANCING BIOLOGY THROUGH INNOVATIONS IN CHEMISTRY**

A distinguished symposium honoring

Professor Benjamin F. Cravatt

Scripps Research Institute

for developing activity-based protein profiling and advancing covalent drug discovery

Date: Friday, April 11, 2025

St. John's University

[Directions](#)

Time: 1:00 PM – 7:30 PM

[Register here](#)

Supported in part by the William H. Nichols Fund For Chemistry at the Boston Foundation

Symposium Program

- 1:00 PM** **Welcome**
Professor Eric Chang, 2025 New York ACS Chair, Pace University
- 1:05 PM** **Opening of the Distinguished Symposium**
Mr. Joseph Weiner, 2025 New York ACS Chair-Elect, PepsiCo
- 1:15 PM** **Chemical tools for uncovering new redox biology at the host-microbe interface**
Professor Stavroula Hatzios, Yale University

Microbial infections stimulate the production of molecular oxidants that can contribute to the development of life-threatening diseases including gastrointestinal cancers. However, it is largely unknown how these oxidants influence cell signaling at the host-microbe interface. Understanding how microbial and host cells respond to oxidative stress during infection could inspire new strategies for detecting and treating associated inflammatory pathologies. In this talk, I will present some of our recent work developing reactivity-guided proteomic and metabolomic approaches to uncover redox-regulated proteins and small molecules that influence cellular physiology at the host-microbe interface.

**2025 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & AWARD PRESENTATION
(continued)****2:00 PM Chemical Approaches to Studying Chromatin**

Professor Tom Muir, Princeton University

The field of epigenetics has exploded over the last two decades revealing an astonishing level of complexity in the way genetic information is stored and accessed in eukaryotes. This expansion of knowledge, very much ongoing, has been made possible by the availability of ever more sensitive and precise molecular tools, including those grounded in the field of chemistry. In this presentation, I will discuss the development of new chemical biology approaches designed to explore spatiotemporal aspects of epigenetic regulation. These methods are helping to expose the remarkable nuances (and vulnerabilities) of epigenetic control mechanisms, providing insights into how these processes become corrupted in disease settings.

2:45 PM *Coffee Break*

3:15 PM Systematic Chemical Diversity to Enable Biological Discovery

Professor Damian Young, Baylor College of Medicine

Small-molecule screening collections are typically assembled toward the goal of providing hits across a broad spectrum of unrelated biological targets. Systematic Chemical Diversity (SCD) is a guiding synthetic logic for generating a family of compounds based on methodical substitutions around a single Csp³-enriched heterocyclic scaffold. The Csp³ atoms provide 3-dimensional vectors which can be systematically substituted based on regiochemistry, relative and absolute stereochemistry, and group identity to generate a set of complex products. The systematic variation of these structural features on a common scaffold efficiently enables hit discovery toward a wide range of targets and simultaneously provides deep structure-activity relationships. The lecture will illustrate the application of SCD to Fragment-Based Drug Discovery (FBDD), DNA-Encoded Libraries (DEL) and Activity-Based Protein Profiling (ABPP).

4:00 PM Tales of Atypical Ligand Discovery by Activity-Based Protein Profiling

Professor Benjamin F. Cravatt, 2025 Nichols Medalist, The Scripps Research Institute

The activity-based protein profiling (ABPP) technology enables global analysis of small molecule-protein interactions in native biological systems and has facilitated the discovery of a wide variety of chemical probes and drug candidates. In this lecture, I will describe our lab's efforts to apply ABPP for the discovery of covalent ligands targeting historically challenging protein classes. Case studies will be presented that underscore the diverse ways that covalent ligands can engage and alter the functions of proteins in human cells. Learnings from these efforts will also be shared and should highlight allostery as a rich source for new chemical probes, as well as the importance of screening small molecules in living systems to maximally illuminate the ligandability of the proteome.

5:00 PM *Reception*

2025 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & AWARD BANQUET (continued)

6:30 PM Medal Award Ceremony

Presiding:	Dr. Eric Chang 2025 Chair, ACS New York Section
ACS Greetings:	Dr. Dorothy Phillips ACS President
Introductory Address:	Dr. Stuart Schreiber Arena Bioworks
Medal Presentation:	Dr. Eric Chang
Acceptance Address:	Dr. Benjamin F. Cravatt Nichols Medalist

Online registration using PAYPAL for payment is available at
www.newyorkacs.online/nichols_medal

Or use the Tear Off reservation form at this line

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Tickets will be available for pick up onsite at the registration table.

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THE WILLIAM H. NICHOLS MEDAL AWARD

Dr. William H. Nichols, shown at right, established this annual award, the first of its kind, in 1902 to honor a chemical scientist for original research. Since its inception, the New York ACS has administered the award. It has been perpetuated through the generosity of Dr. Nichols, his family, and the Nichols Foundation, Inc. The Nichols Medal has been presented to 20 Nobel Laureates – including two double Nobel Laureates – and one Nobel Laureate twice, and 33 National Medal of Science recipients. Leo H. Baekeland won the Nichols Medal in 1910 and nine Nichols Medalists have also received the Leo H. Baekeland Award presented by the North Jersey ACS!

[Read more here](#)



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HUDSON-BERGEN SUBSECTION : CALL FOR ABSTRACTS**26th Annual Student Research Symposium and Award Night**

Speaker: Dr. Sudeep Banjade
SK Life Science Labs

Date: **Friday, April 18, 2025**

Place: Dickinson Hall, Room
4468 Fairleigh Dickinson University

Time: **4:30 PM Student Presentations**
6:00 PM Dinner and Awards
6:45 PM Plenary Lecture

Reservations required, [Email Dr. Mihaela Leonida](mailto:mleonida@fdu.edu) by **April 1st**

The Hudson-Bergen Chemical Society and the Department of Chemistry, Biochemistry and Physics of Fairleigh Dickinson University announce the 26th Annual Student Research Symposium and Award Night. This is a forum for students and their faculty mentors from colleges and universities that participate in the subsection's activities to present the results of their research. Outstanding graduating students, chemistry/biochemistry majors from the participating colleges, are also being recognized (they receive the Hudson-Bergen Chemical Society Award). All the presenters will receive certificates of participation. **Students who wish to make presentations (~10 min each must send an abstract via e-mail to mleonida@fdu.edu, by April 1, 2025.** The abstract should be in MS Word (font Times New Roman 12) and must include the names and addresses of the student(s) and their faculty adviser(s) in addition to the title of the abstract. The abstract should not exceed 200 words. The name of the student presenting the poster should be underlined. There is no registration fee.

This year's symposium also features the lecture:

Targeted protein degradation concepts and approaches to discover small-molecule drugs

Dr. Sudeep Banjade, SK Life Science Labs

In the last decade, targeted protein degradation (TPD) concepts have been widely used in the pharmaceutical and biotechnology sectors to discover drugs targeting various cancers, neurological and immunological diseases. TPD in particular has been utilized to discover molecules targeting those proteins that have been difficult to inhibit by traditional inhibitor-like drugs. This talk will provide a general overview of the concept behind TPD and the approaches taken to degrade specific proteins that are responsible for inducing various diseases. Specific efforts of SK Science Labs to screen for small molecule drugs that induce complex formation between two proteins - an E3 ligase and a protein of interest (POI) - will also be discussed. The E3 ligases are responsible for tagging the POI with a small protein called ubiquitin, which ultimately leads to the destruction of the POI in the cell. The speaker and his colleagues are interested in discovering those small molecule drugs that can bring the E3 together with the POI so that these disease-causing POIs can be destroyed by the normal machinery of the cell.

Bio: Dr. Banjade completed his undergraduate degree at Fairleigh Dickinson University, in Biochemistry, and then obtained a PhD in Molecular Biophysics at UT Southwestern Medical Center, in Dallas. After a cell-biology post-doctoral fellowship at Cornell University, he is currently a drug-discovery scientist at SK Life Science Labs, right outside of Philadelphia.

[Download flyer here](#)

THE CHEMISTRY OF LOVE

Celebrate the Chemistry of Love with with a fun-filled and informative discussion of love, the most fundamental human need. The day's event includes a keynote address by Dr. Eric Chang and student presentations discussing "love" hormones and brain chemistry, a healthy Blender Bar, lunch, fun gifts, a photo booth, and a raffle! [Registration](#) is FREE for this in-person event, but *seats are limited* so [register](#) early.

Date: Saturday, March 8, 2025

Place: Pace University
Student Center East
Entrance of 1 Pace Plaza (1st Floor)

Time: 11:00 AM – 3:00 PM

[Registration](#) is required



4th Annual "Chemistry of Love" event

Where: Pace University
Entrance of 1 Pace Plaza (1st floor)
Student Center East
1 Pace Plaza,
New York City, NY
www.pace.edu



Date: Saturday, March 8, 2025
[Register here for FREE](#)
Register by February 28, 2025



Time: 11-3 PM

Join us at Pace University as we celebrate our 4th Annual "Chemistry of Love" event!

The day's event includes a presentations relating to "love" discussing hormones and brain chemistry, a healthy Blender Bar, lunch, fun gifts, and a raffle!

The event is family-friendly and fun for kids (and adults) of all ages - all are welcome!

Space is limited and everyone must register (*including children*).

Once registration has reached capacity it will be closed.

[Click here to register](#). Registration is FREE

For more information contact: Prof. JaimeLee lolani Rizzo

COL Coordinator

jrizzo@pace.edu

LONG ISLAND SUBSECTION**It's in the Perturbation: Conformational Dynamics of Proteins from Molecular Simulations**

Speaker: Arlind Kacirani
PhD Candidate
Yale University

Date: **Thursday, March 6, 2025**

Place: St. John's University
D'Angelo Center
Room 407
via Zoom

Time: **6:45 PM**

[Registration required, click here to register](#)



Abstract: Human γ D-crystallin belongs to a crucial family of proteins known as crystallins located in the fiber cells of the human lens. Since crystallins do not undergo any turnover after birth, they need to possess remarkable thermodynamic stability. However, their sporadic misfolding and aggregation, triggered by environmental perturbations or genetic mutations, constitute the molecular basis of cataracts, which is the primary cause of blindness in the globe according to the World Health Organization. In this talk I will present our work on the impact of high pressure on the conformational landscape of wild-type HyD-crystallin using replica exchange molecular dynamics simulations augmented with principal component analysis. This exploration sheds light on the intricate responses of HyD-crystallin to elevated pressures, offering insights into potential mechanisms underlying its stability and susceptibility to environmental perturbations, crucial for understanding cataract formation.

Biography: Arlind is a 4th year PhD candidate in Chemical Engineering at Yale University. He is also a fellow in the Integrated Graduate Program in Physical & Engineering Biology (PEB). Previously, he graduated summa cum laude with a B.E. in Chemical Engineering and double minors in Chemistry and Mathematics from The City College of New York. There he researched the structure and dynamics of fungal melanins using ^{13}C solid-state NMR spectroscopy in Prof. Ruth E. Stark's Lab. Before that Arlind earned an A.S. in Chemistry (with Honors) from Queensborough Community College. At Yale, his current research interests focus on protein aggregation, statistical mechanics, and liquid phase transitions

[Download flyer here](#)

**Deadline for
submitting articles and
advertisements for the
April 2025 issue is
March 16, 2025**



Happy St. Patrick's Day

WESTCHESTER CHEMICAL SOCIETY**One-Dimensional Bimetallic Architectures as Multi-Functional Electrocatalysts in Alkaline and Acid Conditions**

Speaker: **Dr. Christopher Koenigsmann**
Associate Professor of Chemistry
Fordham University

Date: **Wednesday, March 12, 2025**

Place: Westchester Community College and Zoom

Time: **6:00 PM**



[Download flyer here](#)

Abstract:

Development of practical electrocatalysts for fuel cells, electrochemical sensors, and batteries requires nanostructured architectures with high catalytic activity and good long-term durability. It is also essential that they have very low or even no platinum content. There has also been a recent emphasis on designing multifunctional catalysts with the ability to efficiently catalyze a wide-range of electrochemical reactions in both acidic and alkaline media. In light of these requirements, we have developed a solution-based synthetic method to prepare bimetallic PtAu nanowires and PtCo nanotubes. The alloy motif enables a substantial quantity of platinum to be removed from the catalyst, while also resulting in the ability to tune the activity of platinum through electronic and structural interactions between the two metals. In the case of PtAu nanowires, we employ a combinatorial approach combining electrochemical measurements with Monte Carlo simulations to explore the impact of Pt-Pt and Pt-Au pair sites on the mechanism of small organic molecule (SOM) oxidation. Our results suggest that Pt-Au pair sites play more significant role in SOM oxidation than previous thought and can facilitate non-CO oxidation pathways in the oxidation of methanol and glucose. More recently, we have synthesized PtCo nanotubes with a complex surface structure that brings together metal oxide and precious metal active sites that are highly active toward the oxygen evolution reaction (OER). Using an electrochemical process, we can selectively remove the metal oxide from the surface of the nanotube, which activates the catalyst toward SOM oxidation in acidic media and OER in alkaline media. For example, the activated core-shell nanowires display a 1.5-fold and a 4-fold increase in the specific activity.

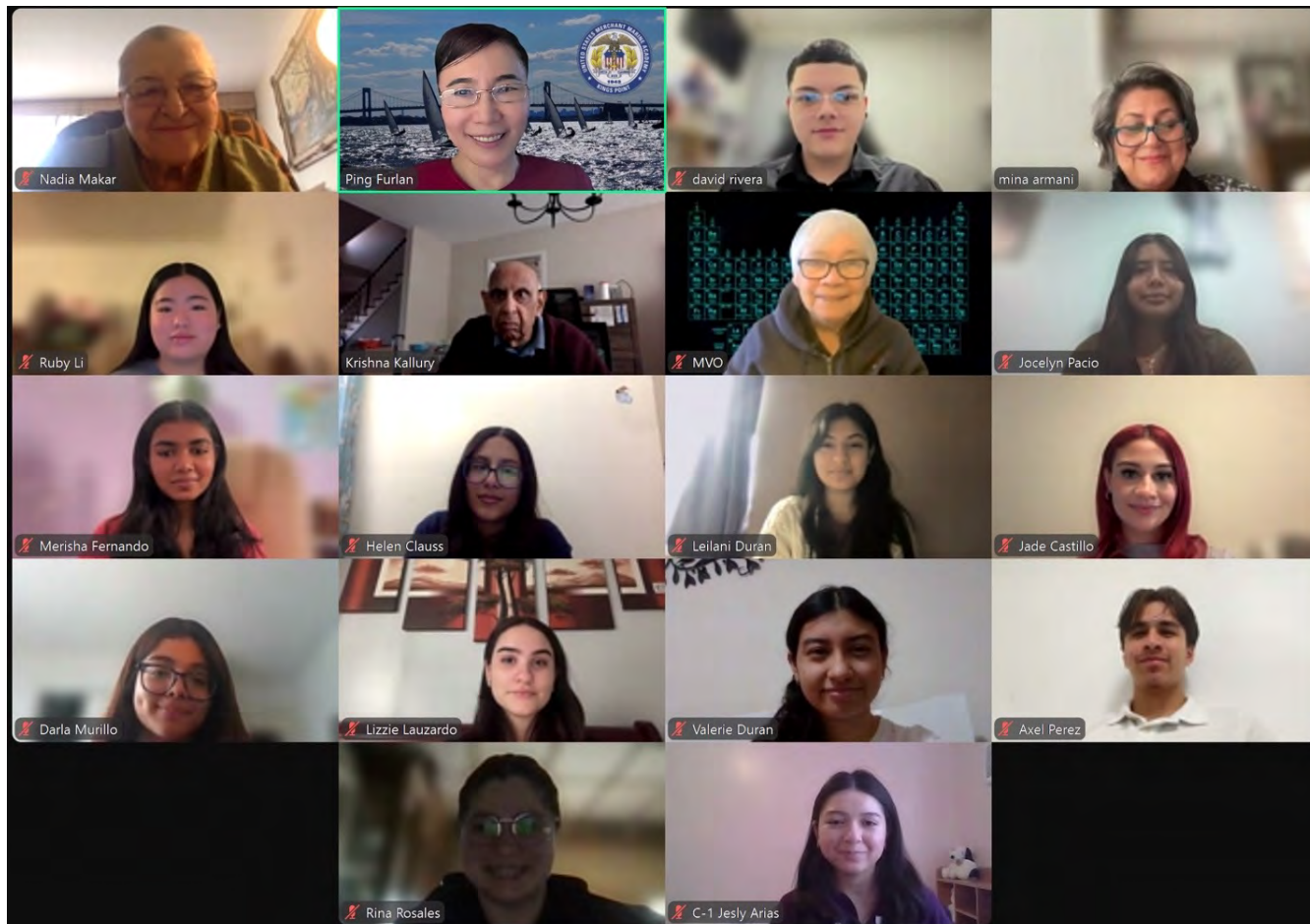
DR. ROLANDE HODEL TO BE AWARDED THE 2025 WESTCHESTER CHEMICAL SOCIETY DISTINGUISHED SCIENTIST AWARD ON APRIL 24, 2025

The Westchester Distinguished Scientist Award and Student Award Dinner will be held on Thursday, April 24, 2025, at Pace University in Pleasantville, NY. The speaker for the evening will be Dr. Rolande Hodel, the 2025 Distinguished Scientist awardee. More details to come in the April Indicator.



MEETING REPORTS

INSPIRING FUTURE SCIENTISTS: 2025 NEW YORK ACS PROJECT SEED SYMPOSIUM



The 2025 New York ACS Project SEED Research Symposium took place virtually on February 8, bringing together students, mentors, and judges, to celebrate scientific innovation. Co-sponsored by the New York ACS and Southern California ACS, with support from a Local Section Activities Committee Grant, the event was a testament to the power of mentorship and collaboration. Students presented cutting-edge research on topics ranging from microplastics and biodegradable plastics to neurodevelopment and antimicrobial materials.

Results- Biodegradability

In order to test the casein and its biodegradability, it was buried in a mix of dirt and soil and checked on it over 3 weeks.

- There are three pots one with...
 - The fat-free 1% milk casein plastic
 - Whole milk casein plastic
 - Whole milk casein plastic broken in pieces


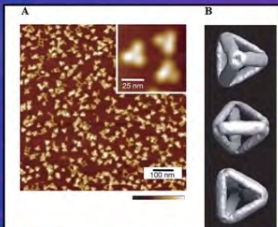


Figure 3

04 Data & Results



AFM Images:

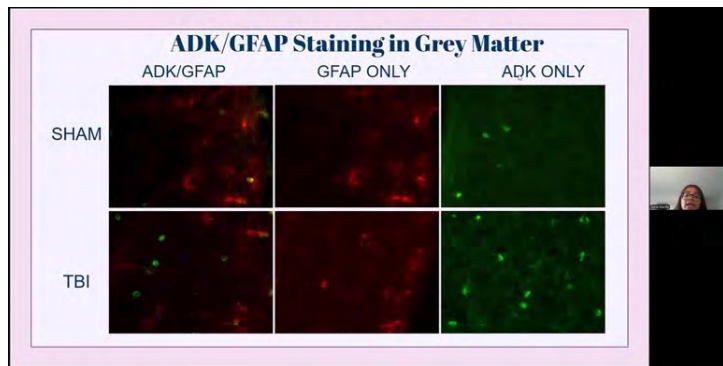
Figure 4. Observation and characterization of tetrahedral DNA by:

- Atomic Force Microscopy (AFM) Imaging
- Cryo EM

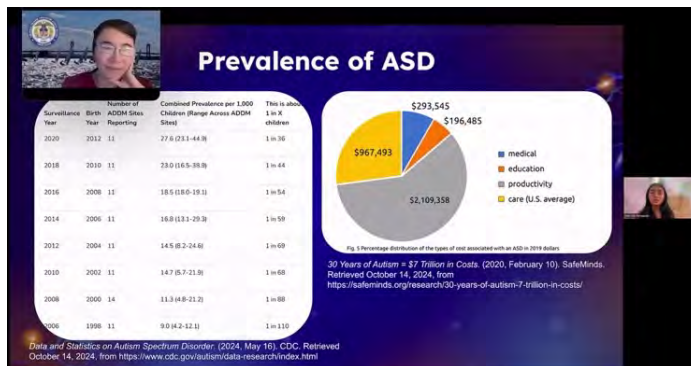
Ruby Li presents her work on biodegradable plastics. Jesly Arias discusses her work DNA nanotechnology.

INSPIRING FUTURE SCIENTISTS: 2025 NEW YORK ACS PROJECT SEED SYMPOSIUM (continued)

A panel of expert judges, including Ms. Sunhwa Joung (Pacifica School, LA), Dr. Kat Bay, Dr. Emma Kuczkowski (Schrodinger, NY), and Dr. Lee Hoffman (Drexel University), recognized five outstanding presentations. Top honors went to Ruby Li for her research on biodegradable plastics, Darla Murillo for her study on brain injury responses, Jesly Arias for her work on DNA nanotechnology, Merisha Fernando for examining maternal inflammation and autism, and Valerie Duran for her investigation of GABAA receptors in autophagy.



Daria Murillo presents her work on brain injury.

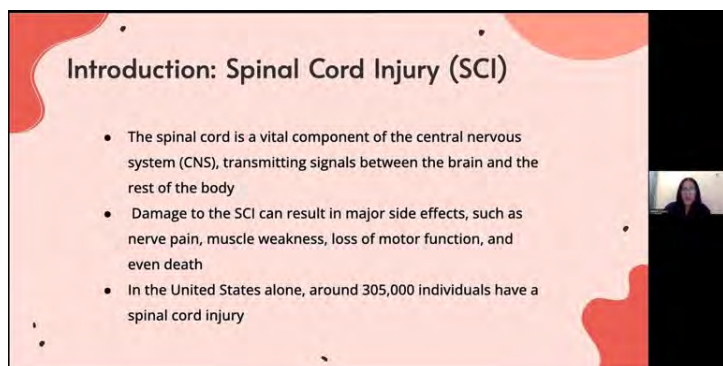


Autism spectrum disorders being discusses by Merisha Fernando.

The symposium also honored the 2024 Project SEED mentors for their dedication to fostering student learning and critical thinking. Over 30 mentors from institutions such as Columbia University, Montclair State University, Rutgers University, and NJIT received certificates of recognition for their invaluable guidance.

A special thank you goes to Dr. Krushna Kallury, whose leadership and vision created this invaluable opportunity for NYACS Project SEED students. Additional gratitude goes to Dr. Ping Furlan for co-coordinating and moderating the symposium, with invaluable support from Ms. Nadia Makar, Ms. Mina Armani, Ms. Rina Rosales, and Ms. Jennifer Donnelly.

The symposium highlighted the impact of mentorship, collaboration, and diversity in STEM, reinforcing Project SEED’s mission. Organizers extend their gratitude to all participants and look forward to continuing to support future scientific leaders. The Symposium recording can be found [here](#) along with the mentor [comments](#).



Helen Klauss talks about spinal cord injury.



Jocelyn Pacio discusses climate change.

SPRING ACS NATIONAL MEETING & EXPOSITION EVENTS

SYMPOSIUM HONORING ANN NALLEY

Join your colleagues on **Tuesday, March 25** for a full-day symposium honoring 2006 ACS President E. Ann Nalley. Held in Ballroom 6E of the San Diego Convention Center starting at **9:00AM**, the symposium features luminaries including ACS Presidents Bruce Bursten, Angela Wilson, Dorothy Phillips, Joseph Francisco, Marinda Wu, Bassam Shakhshiri, and Diane Schmidt discussing Ann Nalley's contributions to science and the American Chemical Society.

SYMPOSIUM HONORING THE CONTRIBUTIONS OF ANN NALLEY:
Amazing ACS Past President, Champion, Ambassador, Mentor, Teacher, and Role Model

TUESDAY, MARCH 25, 2025
SAN DIEGO CONVENTION CENTER | BALLROOM 6E
9:00 A.M. - 12:05 P.M. | 2:00 P.M. - 4:05 P.M. PT

Hosted by the ACS Senior Chemists (SCC) and Women Chemists Committees (WCC)
Frank Romano, SCC Chair and Lorena Tribe, WCC Chair
Program Chairs: Lawrence Berliner and Stephanie Hale
Organizers: Lawrence Berliner and Stephanie Hale
Presiders: Lawrence Berliner and Lorena Tribe

9:00 AM - 9:10 AM Introduction
9:10 AM - 9:30 AM Ann Nalley: A Superwoman
Zifra Lerman
9:30 AM - 9:50 AM Giacomina Rose: Cultivating STEM Success - Honoring the legacy of Dr. E. Ann Nalley
Frankie Wood-Black
9:50 AM - 10:10 AM Being a leader, volunteer, mentor, and role model: A personal tribute to E. Ann Nalley
Bruce Bursten
10:10 AM - 10:30 AM Summer academies contributing to increased interest in STEM
Carol Rhodes
10:30 AM - 10:50 AM Legacy and impact of the eminent and energetic Ann Nalley
Angela Wilson
10:50 AM - 11:05 AM Break
11:05 AM - 11:25 AM Dr. Elizabeth Ann Nalley, friend, colleague and mentor
Dorothy Phillips
11:25 AM - 11:45 AM Dynamic leadership in a global economy
Diane Schmidt
11:45 AM - 12:05 PM Ann Nalley Chemist, Teacher, Exemplar of living the ACS Mission
Bassam Shakhshiri
12:05 PM - 2:00 PM Break
2:00 PM - 2:20 PM Honoring contributions of Ann Nalley: My role model, mentor, and good friend
Marinda Wu
2:20 PM - 2:40 PM Legacy of Dr. E. Ann Nalley
Dorothy Nelson
2:40 PM - 3:00 PM Ann Nalley, champion of volunteers
Doris Lewis
3:00 PM - 3:20 PM Ann Nalley: A role model for us all
Joseph Francisco
3:20 PM - 3:40 PM Ask Anni! Mentors do matter
Judith Inarte-Gross
3:40 PM - 4:00 PM Significant journey: Challenges and opportunities
Dr. E. Ann Nalley
4:00 PM - 4:05 PM Closing Remarks



SENIOR CHEMISTS COMMITTEE & YOUNGER CHEMISTS COMMITTEE MEET-&-TREAT

The Senior Chemists and the Younger Chemists Committees will be hosting a **Sunday** afternoon meet-and-treat at **4:00PM** for students, young professionals, and seasoned professionals at the Hilton San Diego Bayfront, Sapphire G/H. If you are a student, young professional, or early career and plan to be in San Diego for the ACS meeting, the committee hopes that you would add the Networking with Chemistry Professionals Event to your calendar. There will be tables designating the professionals' areas of interest so the students, young professionals, and early career individuals can easily identify their expertise.

ACS Networking with Chemistry Professionals and Students

COME JOIN US FOR A MEET & TREAT EVENT!

Sponsored by the Senior Chemists and Younger Chemists Committees

SUNDAY, MARCH 23 - 4:00-5:30 P.M.
HILTON SAN DIEGO BAYFRONT • SAPPHIRE G/H

Undergraduates, graduates, and younger professionals will have an opportunity to meet with chemistry professionals from academia, government, industry, small business, and more.

Join us for this engaging event and enjoy a treat as a thank you for your participation!





BIOPHARMA 101

Join the Division of Organic Chemistry, Division of Medicinal Chemistry and the Younger Chemist Committee for their Biopharma 101 symposium and networking session at the ACS Spring 2025 Conference in San Diego! The event is March 26th 2-6pm at Baja Rick's Cantina (170 Sixth Avenue). We hope to see you there!

Biopharma 101: Transition to Industry Symposium and Panel Discussion

Wednesday 03/26/2025
2-6 PM PT
Room 7B - San Diego Convention Center

Networking session 6:30-8:30 PM PT
@ Baja Rick's Cantina
170 Sixth Avenue San Diego
(Tickets are first come first serve)

Nicola Webb
Bristol Myers Squibb

Michael Mormino
Nurix Therapeutics, Inc.

Melissa Buskes
Atavistik Bio

Kryatine Vuong
Novartis

Jacobi Lindwig
Abbvie

Chalexa N. Miller
Genentech Inc.

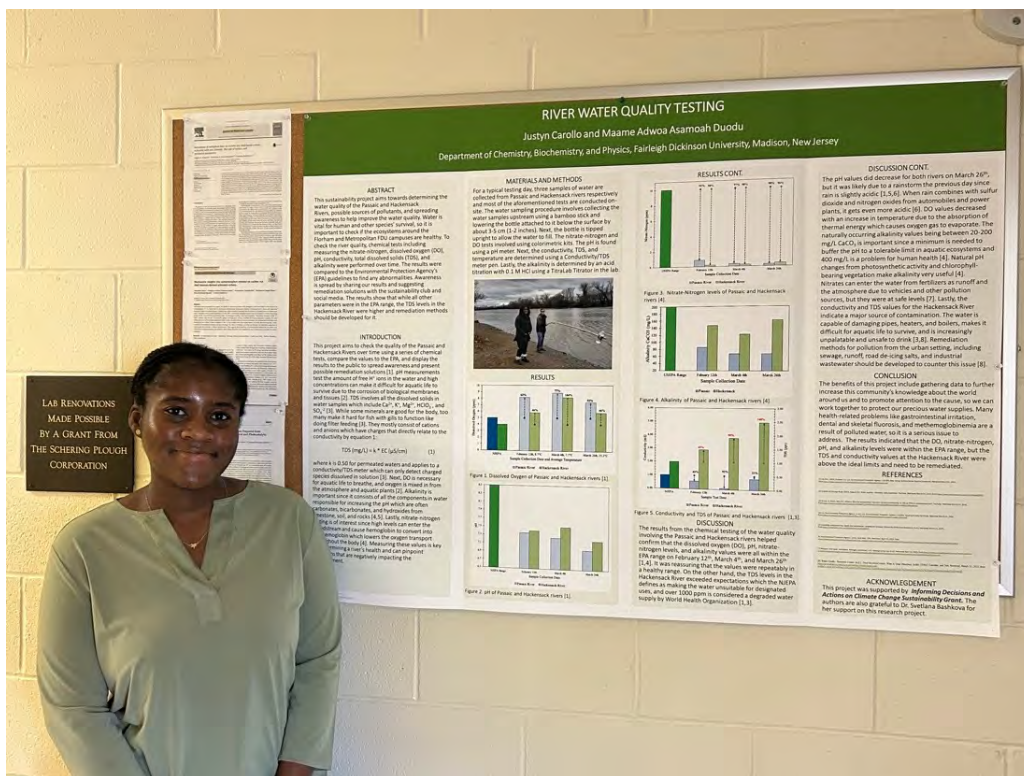
Byron Peters
Merck & Co.

Alexander R. Rovira
Johnson & Johnson Innovative Medicine

Undergraduate/Graduate students interested in presiding the session apply here!




NORTH JERSEY ACS UNDERGRADUATE TRAVEL AWARD



In 2012, the North Jersey Section ACS established the Undergraduate Travel Grant to assist and encourage students to present their research posters at ACS national meetings. Up to four grants of \$1000 each are awarded each year. Students may apply for either the spring or fall meeting.

At the 2025 Spring National Meeting in San Diego, CA, Maame Adwoa Asamoah Duodu, FDU Florham Campus, will present her research as a recipient of the Undergraduate Travel Grant. Adwoa's research is under the guidance of advisor, Dr. Svetlana Bashkova. The poster presentation will take place within the Division of Environmental Chemistry and the research topic is: *Activated carbons from cashew nutshells prepared by urea modification and potassium carbonate activation for benzoic acid and carbon dioxide adsorption.*

Students wishing to apply for a travel grant for the 2025 fall meeting in Washington, DC, please visit <https://www.njacs.org/ug-travel-grants/> for information and the supporting documents. Fall 2025 Abstracts are due March 31, 2025.



NEWS FROM OUR PARTNERS**SOCIÉTÉ DE CHIMIE INDUSTRIELLE****Virtual Career Networking Event****Date: Thursday, March 6, 2025****Time: 6:00 PM**

Société is holding a one hour panel followed by a one hour career networking/recruiting session on March 6 (6 pm EDT). Join us in our virtual ballroom, where students will meet with company representatives and with Société members who are involved with the chemical industry. Students to be invited will be undergraduate and graduate chemistry and chemical engineering students from top US schools.

To kick off the event, Société is featuring an hour-long panel discussion in cooperation with the American Chemical Society (ACS) focusing on Non-traditional Careers in Chemistry and Life Sciences. Topics will include careers at start-ups, consulting, and finance.

Participation is free. [Register now](#) and receive the access link closer to the event.

EASTERN ANALYTICAL SYMPOSIUM & EXPOSITION
Across The Analytical Spectrum:
Diversity of Scientific Ideas

2025 EAS AWARD
for
OUTSTANDING ACHIEVEMENTS IN SEPARATION SCIENCE

Professor Nicholas Snow
Seton Hall University

EASTERN ANALYTICAL SYMPOSIUM

Congratulations to Prof. Nicholas Snow, Seton Hall University, who has been selected to receive the 2025 EAS Award for Outstanding Achievements in Separation Science. Join your colleagues in celebrating Prof. Snow at this year's Eastern Analytical Symposium, November 19-21, 2025 at the Crown Plaza Princeton – Conference Center in Plainsboro, NJ.

EAS VIRTUAL STUDENT SYMPOSIUM

On Tuesday, April 29, 2025, EAS will hold their Virtual Student Symposium (VSS). All undergraduate and graduate students are invited to participate. Abstracts are due April 19th.

[Click here to learn more.](#)

OPPORTUNITIES

For High School Students & Teachers

ACS Hach Second Career Teacher Scholars

[Due May 1](#)

ACS–Hach Post-Baccalaureate Teacher Scholarship

[Due May 1](#)

For Undergraduates

ACS Bridge Program

[Due March 18](#)

Women Chemists Committee Overcoming Challenges Award

[Due April 1](#)

Priscilla Carney Jones Scholarship

[Due May 1](#)

For Graduate Students / Postdocs

D.E. Shaw Doctoral and Postdoctoral Fellowship

[Due March 10](#)

Future Faculty Workshop

[Due March 31](#)

Arthur C. Cope Postdoctoral Fellowship in Organic Chemistry

[Due April 1](#)

Ciba/YCC Travel Award

[Due May 15](#)

Women Chemists Committee/Eli Lilly Travel Award

[Due June 1](#)

Division of Inorganic Chemistry Travel Award

[Due June 15](#)

For Professionals

Brazilian Women in Chemistry Award

[Due March 14](#)

ACS Petroleum Research Fund Grants

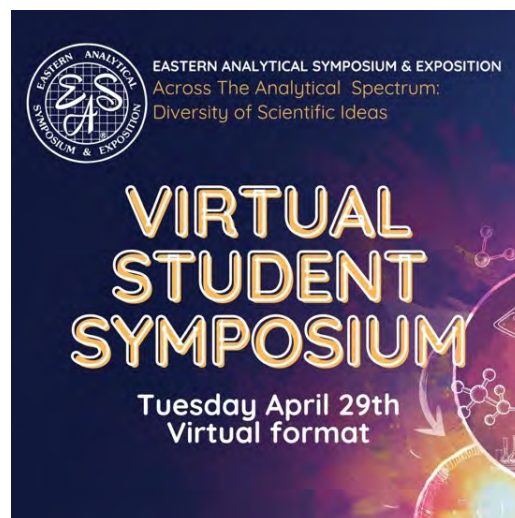
[Due March 7](#)

Local Section Member Engagement and Enhancement (LS-MEET) Grant

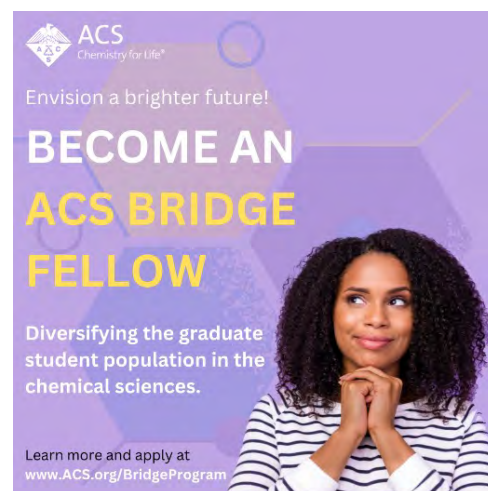
[Due May 31](#)

William H. Nichols Medal

[Due May 31](#)



[Abstracts due April 19, 2025](#)



JOB BOARD

Starting your career or looking for the next challenge? Review postings at the New York ACS [Job Board](#). Email your job postings to Jobs@NewYorkACS.org for inclusion.

Academic Positions

Tenure-Track Assistant Professor – The Cooper Union

[Apply here](#)

Visiting Assistant Professor for Chemistry – Colgate University

[Apply here](#)

Visiting Assistant Professor of Chemistry – Hamilton College

[Apply here](#)

Tenure-Track Assistant Professor of Chemistry – St. Joseph’s University

[Apply here](#)

Assistant Professor, Department of Biological Sciences – Columbia University

[Apply here](#)

Chair, Department of Chemistry – New Jersey Institute of Technology

[Apply here](#)

Assistant Professor, Tenure Track, in Organic Chemistry – New Jersey City University

[Apply here](#)

Industrial Positions

Chemist I – The Thatcher Company, Inc.

[Apply here](#)

Associate Director, Quality Control – Regeneron

[Apply here](#)

Computational Chemists – D.E. Shaw Research

[Apply here](#)

Senior Research Scientist – Advanced Oxidation Processes – Trojan Technologies

[Apply here](#)

Senior Scientist, Animal Health – The Hartz Mountain Corporation

[Apply here](#)

Senior Scientist, Emulsions – Edgewell Personal Care

[Apply here](#)

Principal Scientist, Analytical R&D – Merck

[Apply here](#)

Senior Scientist, Bioconjugates – Janssen Research & Development

[Apply here](#)

