

Congratulations



Professor Karen Goldberg
2023 William H. Nichols Medalist

See page 8



ACS Local Section
North Jersey



ACS Local Section
New York

MARCH 2023

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THIS MONTH IN CHEMICAL HISTORY

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

In this column I continue with the third instalment of my review of the chemistry of 90 years ago as seen through the "Annual Reports of the Progress of Chemistry" published in London by The Chemical Society. The report for 1933 is Volume XXX, the series having started in 1903.

The chemistry of phosphorus occupied a good deal of my own earlier chemical researches, and so it is interesting to see the advances made in 1933, twenty years before I started on my doctoral work. Hypophosphoric acid was an enigma; H_2PO_3 or $\text{H}_4\text{P}_2\text{O}_6$? Work by the Arbusovs on the solution molecular weights of hypophosphate esters corrects earlier claims and supports the double formula for these compounds. The monomer is an odd electron molecule and should therefore be paramagnetic while the dimer might be diamagnetic. All the salts of hypophosphoric acid were found to be diamagnetic reinforcing the double formula for the acid.

Turning to a similar situation in sulfur chemistry the alkaline oxidation of potassium hydroxylamine disulphonate, $\text{HON}(\text{SO}_3\text{K})_2$ gives a dark red solution that, on evaporation produces yellow crystals of empirical formula $\text{ON}(\text{SO}_3\text{K})_2$. These crystals give a dark red solution in water. The yellow solid turns out to be diamagnetic while the solution is strongly paramagnetic, implying that the solid is a dimer $[\text{ON}(\text{SO}_3\text{K})_2]_2$ that is in equilibrium with the odd electron monomer in solution.

Work in the previous year claiming the preparation of chlorides and bromides of krypton has now been shown to be inaccurate; the materials contained no krypton. Several other attempts to obtain compounds of the noble gases have been failures. However, Linus Pauling has predicted the eventual isolation of KrF_6 and XeF_6 with the possibility of an unstable XeF_8 .

A good deal of further research on coordination compounds of alkali metal ions was published in 1932. Sidgwick and his colleagues earlier demonstrated that alkali metal ions formed complexes with ligands such as orthonitrophenol salicylaldehyde with both sodium and lithium ions being 4-coordinated. Beta-alanine forms complexes with lithium ions and orthohydroxybenzaldehyde with sodium ions. Coordination chemistry of alkali metal ions was well established long before the era of cryptands.

Copper forms tetrahedral complexes when it is 4-coordinate and octahedral complexes when 6-coordinate. $[\text{Cu}(\text{en})_2(\text{H}_2\text{O})_2]\text{Cl}_2$ has been resolved by the classical method of separation of tartrate salts thus supporting an octahedral configuration. Reviewing copper coordination chemistry Sidgwick has pointed out the relative scarcity of 6-coordination, 4 being the norm. The novel ligand ethylenethiourea (etu) stabilizes many otherwise unstable compounds such as copper(I) nitrate, unknown as a simple salt but isolable as $[\text{Cu}(\text{etu})_4]\text{NO}_3$. The coordination compound of silver chloride, $\text{Ag}(\text{etu})_3\text{Cl}$, is unaffected by light.

Silver is normally found as $\text{Ag}(\text{I})$ in its simple compounds. Coordination stabilizes unusual oxidation states. For example $[\text{Ag}(\text{py})_4](\text{NO}_3)_2$ is obtained by anodic oxidation of silver nitrate in the presence of pyridine (py). The electrolytic method also produced complexes of $\text{Ag}(\text{II})$ with 2,2'-dipyridyl. The paramagnetism of these complexes shows that they do indeed contain $\text{Ag}(\text{II})$.

Thallium, which exhibits oxidation states of 1 and 3, apparently forms no monoalkyl derivatives but now triethyl thallium has been made from diethylthallium chloride, readily prepared from thallium trichloride and ethyl Grignard reagent, and ethyllithium. Triethylthallium is very reactive and with sodium hydroxide produces Et_2TlONa . Dialkyl thallium hydroxides form stable chelated compounds with many bivalent ligands including diketones, ethylacetoacetate, and salicylaldehyde.

Thallium(I) alkoxides such as EtTlOEt form ionic solutions in water but are soluble in benzene. Molar mass determinations in benzene solution indicate formation of polymers of approximate composition $(\text{EtTlOEt})_4$ but of unknown structure.

X-ray structural determinations of salts of dithionic acid and of metabisulphites have clarified some longstanding questions. The dithionate ion has the structure $[\text{O}_3\text{SSO}_3]^{2-}$ and the metabisulfite ion is $[\text{O}_3\text{SSO}_2]^{2-}$. The chemistry of relatively simple compounds of the main group non-metals seems to me to have been a somewhat neglected subject in undergraduate courses and textbooks. Have recent chemistry graduates any idea of the existence of dithionates or hypophosphates? I have my doubts.

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EDITORIAL DEADLINES

April 2023	March 16, 2023
May 2023	April 16, 2023
June 2023	May 16, 2023
September 2023	August 16, 2023

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<https://www.acs.org/membership.html>

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March Calendar

NEW YORK SECTION

Thursday, March 2, 2023

Long Island Subsection
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Wednesday, March 8, 2023

Westchester Chemical Society
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Monday, March 20, 2023

Board of Directors Meeting
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Thursday, March 30, 2023

Long Island Subsection
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Saturday, April 1, 2023

Undergraduate Research Symposium
Abstract Submission Deadline
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Friday, April 14, 2023

William H. Nichols Distinguished Symposium
and Award Dinner
See page 8

Sunday, April 16, 2023

Chemists Celebrate Earth Week
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Friday, May 19, 2023

ACS National Historic Chemical Landmark
Dedication Ceremony
See page 7

NORTH JERSEY SECTION

Monday, March 20, 2023

North Jersey Executive Committee Meeting
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Tuesday, March 7, 2023

NJACS Chromatography Group
See page 5

Tuesday, April 11, 2023

NJACS Mass Spectrometry Discussion Group
See page 6

**The deadline for
submitting material for
the April issue of The
Indicator is March 16th**
<http://www.theindicator.org/>



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NORTH JERSEY SECTION MEETINGS

<https://www.njacs.org/>

2023 NORTH JERSEY ACS EXECUTIVE COMMITTEE MEETINGS

2023 North Jersey ACS Chair Justyna Sikorska and the Executive Council welcome you to our monthly NJACS meetings. Meetings will be held either virtually or in hybrid mode (virtually with an in-person option at the Merck Kenilworth site). The meetings are normally held on **Mondays from 7 pm to 9 pm once per month**. All members are welcome to attend and become more involved in section activities.

For any additional information including a link to virtual meetings and RSVP deadline for in-person meetings, please [click here to email our Communications Chair](#).

March 20 (virtual)
 April 17 (virtual)
 May 22 (hybrid)
 June 19 (hybrid)

September 18 (hybrid)
 October 23 (virtual)
 November 13 (virtual)
 December - TBD

Theme: Cannabis Analysis



Speaker 1

Dr. Nandakumara Sarma

USP

“USP Considerations for Quality Attributes of Cannabis Inflorescence for Medical Purposes”



Speaker 2

Dr. Walter Brent Wilson

NIST

“The Role Chromatography Plays in the NIST Cannabis Laboratory Quality Assurance Program”

NORTH JERSEY ACS CHROMATOGRAPHY GROUP

NJCG is hosting an online seminar **1:30 pm- 3:30 pm** (US EST) on **March 7th, 2023** focused on "**Cannabis Analysis**". Two speakers are invited. The first speaker is Dr. Nandakumara Sarma from USP, who will present *USP Considerations for Quality Attributes of Cannabis Inflorescence for Medical Purposes*. The second speaker is Dr. Walter Brent Wilson from NIST, who will present *The Role Chromatography Plays in the NIST Cannabis Laboratory Quality Assurance Program*. The registration is free using the link provided and NJCG welcomes global audiences to participate in this great event.

[Register here](#)
[Download Flyer](#)

NORTH JERSEY ACS MASS SPECTROMETRY DISCUSSION GROUP

The [Mass Spectrometry Discussion Group](#) of North Jersey ACS has exciting events planned for 2023! These include in-person and virtual symposia, as well as the Vendor Show. Please check the NJACS website for more details.



April 11th
 April 25th
 May 16th
 September 21st

Bruker - in person @ Somerville Elks Lodge in Bridgewater, NJ
 MOBILion – virtual (WebEx)
 Sciex - in person @ Somerville Elks Lodge in Bridgewater, NJ
 Vendor Show – Booking vendors in an ongoing fashion.
 Speakers secured as below:

Speaker 1 – [Dr. Bhagwat Prasad](#), Washington State
 Speaker 2 – [Dr. Peters Nemes](#), University of Maryland

November 13-15

EAS – NJ-ACS MS Topical Group will organize two sessions

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NEW YORK SECTION MEETINGS

<http://www.newyorkacs.online>

BOARD MEETING DATES FOR 2023

The dates for the Board Meetings of the ACS New York Section for 2023 are below. The meetings are open to all – everybody is welcome, but an RSVP for in-person attendance is required 5 days before the meeting, 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](mailto:Ms.Bernadette.Taylor). Mary Virginia Orna, Ph.D. will Chair all meetings. The meetings will start at exactly 6:30 PM.

The board meetings dates for 2023 are, as follows:

Monday, March 20, 2023 (hybrid)

Friday, April 14, 2023 (in person)

William H. Nichols Symposium and Medal Award Dinner at the Sonesta Hotel, White Plains, NY.

Monday, June 5, 2023 (hybrid)

Monday, September 18, 2023 (hybrid)

Monday, November 20, 2023 (hybrid)

Please note that there will also be an in person meeting of the Finance Committee on Wednesday, **November 15, 2023**.

More information will be posted in future monthly issues of *The Indicator* and on the New York ACS [website](http://www.newyorkacs.online).



ACS NATIONAL HISTORIC CHEMICAL LANDMARK DEDICATION CEREMONY

Join Us in Honoring
a STEM Pioneer

Celebrating the life and legacy of
Dr. Marie Maynard Daly
First African American Female
Ph.D. in Chemistry

Public outreach events throughout 2023 with the National Historic Chemical Landmark Dedication at Columbia University on May 19, 2023



All are welcome to attend the dedication of the US National Historic Chemical Landmark honoring Dr. Marie Maynard Daly, the first African American woman to earn a Ph.D. in Chemistry. The dedication will be preceded by a symposium honoring Dr. Daly's life, contributions to science and ongoing legacy. Confirmed speakers include, the following:

- Dr. Linda Meade-Tollin (University of Arizona, *Emerita*)
- Dr. Mandë Holford (Hunter College – CUNY)
- Dr. Sibrina Nichelle Collins (Lawrence Tech)
- Dr. Marc Walters (New York University)

The symposium will be followed with the screening of a short film about Dr. Daly's life and impact and the dedication of the US National Historic Landmark in her honor.

[Register here](#)

Where: Columbia University
Havemeyer Hall
3900 Broadway
New York, NY 10016

Date: **Friday, May 19, 2023**

Time: 10:00 AM – 2:00 PM

WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & AWARD BANQUET**Catalysis for a Sustainable Future**

A distinguished symposium honoring

Professor Karen Goldberg

Vagelos Professor of Energy Research
University of Pennsylvania
*for pioneering work in organometallic
reaction mechanisms*

Date: Friday, April 14, 2023
Sonesta Hotel, White Plains, NY
[Hotel website](#)

Time: 1:00 PM – 9:00 PM

[Register here](#)

Symposium Program**1:00 PM Welcome**

Professor Mary Virginia Orna, 2023 New York ACS Chair

1:05 PM Opening of the Distinguished Symposium

Professor Ping Furlan, 2023 New York ACS Chair-Elect, US Merchant Marine Academy

1:15 PM Organometallic Chemistry of High Valent Late Transition Metals

Professor Melanie Sanford, Department of Chemistry, University of Michigan

This presentation will describe my group's studies of the design, synthesis, and reactivity of high valent complexes of Pd, Ni, Cu, and Co. As discussed throughout the talk, our efforts in this area were inspired by Professor Goldberg's seminal work in the area of high valent platinum chemistry.

2:00 PM Development of New First-Row Metal FOX Complexes for Alcohol Dehydration

Professor William Jones, Department of Chemistry, University of Rochester

We have prepared a new route to a series of fused bis-oxazolidene (FOX) bicycles with either chiral *rac*- or achiral *meso*- stereochemistries, and attached these to first row transition metals (Mn, Fe, Co, Ni, Cu). The coordination geometries observed vary from K₂-NN to K₃-NNN to K₃-ONN to K₄-NNNO coordination. In addition, an iron FOX complex has been found to be active for alcohol dehydration. We will describe in detail the dehydration of 1-phenylethanol to give styrene. Off-cycle α -methylbenzyl ethers are also formed reversibly, and their role in the catalysis will be elucidated. Deuterium labelling studies give additional insights into the mechanism of this reaction. Extensions to other alcohols will also be discussed.

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

WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & AWARD PRESENTATION**2:45 PM Catalytic Dehydrogenation of Alkanes by Transition Metal Complexes**

*Professor Alan Goldman, Department of Chemistry,
Rutgers – The State University of New Jersey*

The dehydrogenation of alkanes and alkyl groups to give olefins is a reaction of tremendous potential value. Low-oxidation-state organometallic complexes were demonstrated to be effective for this reaction 40 years ago by Crabtree, and great progress has been made since then. We have found that “PCP”-pincer-ligated iridium complexes are particularly effective for alkane dehydrogenation, with the use of olefinic acceptors or by purging H₂ from solution, and we have incorporated these reactions into tandem systems for several dehydrogenation-based catalytic transformations. More recently we have turned our attention to systems that operate based on fundamentally different principles, such as Phebox-ligated catalysts. The iridium Phebox unit is formally isoelectronic to (PCP)Ir, but whereas (PCP)Ir operates via C-H activation by Ir(I), (Phebox)Ir effects dehydrogenation via Ir(III) (as an acetate complex) and possibly Ir(V) intermediates. Such a high-oxidation-state catalytic cycle offers advantages for many potential applications of dehydrogenation. For example, we are interested in dehydrogenation achieved by proton-coupled electron transfer (PCET), which could ultimately be driven electrochemically or with O₂ as the ultimate hydrogen acceptor. We have found that (PCP)Ir can operate via PCET but turnovers are limited by over-oxidation. High-oxidation-state catalysts could allow us to circumvent this problem and may generally be more favorable for PCET-based dehydrogenation.

3:30 PM Coffee Break**4:00 PM Selective C-H Bond Activation of Alkanes: Collaborating with Nature to Develop Sustainable Chemistry**

Professor Rachel Narehood Austin, Department of Chemistry, Barnard College

The transformation of alkanes into terminal alcohols using molecular oxygen as the sole oxidant with a catalyst that utilizes earth abundant metal ions exemplifies the kind of chemistry required for a sustainable future. Our lab is focused on determining the structure of alkane monooxygenase (AlkB), the metalloenzyme that catalyzes the selective oxidation of most liquid alkanes in the environment and understanding how its structure facilitates its function. In this talk, we will share our knowledge of how AlkB works and what lessons it offers us as we develop chemistry for a sustainable future.

4:45 PM Molecular Oxygen as a Reagent in Late Transition Metal Organometallic Chemistry

*Professor Karen Goldberg, Nichols Medalist,
Vagelos Institute for Energy Science, University of Pennsylvania*

From environmental and economic standpoints, molecular oxygen represents the ideal oxidant for chemical transformations. It is readily available, inexpensive (particularly if used without separation from air) and environmentally benign. However, more expensive and/or hazardous oxidants are often employed in homogeneous metal-catalyzed oxidation reactions. In fact, typically organometallic chemists don't even let their compounds “see” molecular oxygen, using special equipment and procedures to rigorously protect their compounds from the air. Unfortunately, this deliberate exclusion of air has resulted in a lack of understanding of exactly how transition metal complexes react with molecular oxygen, which in turn has inhibited efforts to design catalysts for selective aerobic oxidations. Kinetic and mechanistic studies of the reactions of oxygen with various late metal alkyl and hydride complexes will be presented along with our nascent mechanistic understanding of these reactions. The generality of these aerobic oxidation reactions and their potential for incorporation into hydrocarbon functionalization strategies will also be discussed.

WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & AWARD PRESENTATION**MEDAL AWARD BANQUET**

5:45 p.m. Social Hour

6:45 p.m. Medal Award Dinner

Presiding: Dr. Mary Virginia Orna
2023 Chair, ACS New York Section

ACS Greetings: Dr. Judith C. Giordan
2023 President, American Chemical Society

In-Person Recognition of 2020 and 2022 Medalists

Introductory Address: Dr. Rachel Narehood Austin
Barnard College

Medal Presentation: Dr. Mary Virginia Orna

Acceptance Address: Dr. Karen Goldberg
Nichols Medalist

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BANQUET RESERVATIONS DEADLINE – APRIL 5, 2023

LONG ISLAND SUBSECTION

Virus-like particle α Gal glycoconjugate as a vaccine candidate against Chagas disease

Speaker: **Dr. Carlos A. Sanhueza**

School of Pharmacy and Health Sciences
St. Johns University

Date: **Thursday, March 2, 2023**

Time: 6:00 PM via [Zoom](#)

Cost: Complementary

[Download Flyer](#)



Abstract: The carbohydrate antigen α Gal (α Gal(1,3) α Gal), or Galili epitope, is commonly found at the non-reducing end of conjugated oligosaccharides in several mammals, bacteria, and protozoans. However, given the α 1,3-galactosyl transferase gene suppression through evolutionary history, α Gal is absent in humans and Old World monkeys. Consequently, α Gal is a non-self-saccharide in these species resulting in anti- α Gal immune responses upon antigen exposure. In fact, about ~1% of circulating antibodies in human sera are directed against α Gal, which results from the constant antigen exposure from the intestinal flora. Among negative consequences, we find that α Gal is a significant immunological barrier in xenotransplantation, the exposure to specific α Gal-carrying glycoproteins can result in α Gal hypersensitization (the α Gal syndrome or “red meat allergy”), and α Gal suppression resulted in earlier reproductive senescence in humans.

On the other hand, the immune response against α Gal also carries benefits such as the α Gal-promoted antigen capture by antigen-presenting cells and more significant resistance against zoonotic diseases including parasitic diseases. In our group, we are keen to explore the application of α Gal immunology to control parasitic diseases such as Chagas disease and visceral Leishmaniasis. Here, we will present the stereoselective synthesis of an α Gal-carrying trisaccharide, its conjugation to Q β virus-like particles, and the results from the immunological study of this glycoconjugate vaccine candidate against Chagas disease.





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LONG ISLAND SUBSECTION***Sustainable Metal Production through Coordination Chemistry: Elucidating Similarities and Differences in the Properties of Isostructural Nb^V/Ta^V Complexes to Drive Separation***

Speaker: Maxwell H. Furigay
 Department of Chemistry
 University of Pennsylvania

Date: Thursday, March 30, 2023

Time: 6:00 PM via [Zoom](#)

Cost: Complementary

[Download Flyer](#)



Abstract: The growing need for consumer electronics continues to spur production of associated raw materials. The demands for tantalum (Ta), which is used in capacitors, and its chemical twin, niobium (Nb), which is widely used in steel alloys, have exploded over the last 20 years, with global production doubling for Ta and quadrupling for Nb since 2000. Nb and Ta are primarily sourced from the minerals columbite [(Mn,Fe)][(Nb,Ta)O₆] (Nb₂O₅ = 38–80%) and tantalite [(Mn,Fe)][(Nb,Ta)O₆] (Ta₂O₅ = 40–86%) and are invariably found together in their mineral matrices. As such, a separation step is required to purify the two elements from one another. However, Nb and Ta exhibit fundamentally similar chemical properties, with essentially identical ionic radii, reactivity, and hardness, making their separation challenging. The current industrial separation process requires fluorination of the mixed-metal oxides using superstoichiometric hydrofluoric acid (HF), with associated challenges of toxicity, corrosivity, safety, and cost. Current efforts to develop fluoride-free separation techniques have been met with limited success. To advance sustainable methods of Nb/Ta separation and purification, two sets of isostructural Nb/Ta coordination complexes were synthesized, characterized, and tested for divergent reactivity to determine if coordination chemistry could be used to create differences in Nb/Ta properties or reactivity upon metal ligation. One isostructural set of complexes, Nb/TaClamp (Clamp = tris-(2-(3',5'-di-tert-butyl-2'-oxyphenyl)amidophenyl)amine) displayed remarkable differences in ground- and excited-state properties but was unable to be leveraged for separation. Another set of complexes, Nb/Ta(BINOLate)₃ (BINOL = tris-(S)-(-)-1,1'-bis(2-naphthol) displayed differences in redox activity between the Nb and Ta species that were able to be leveraged for electrochemical Nb/Ta separation.



Department of Chemistry

**Dr. H. Martin Friedman
 University Lecture**

Friday, April 28, 2023 – 11:30 a.m.

**Life Science Center II Room 130
 225 University Ave., Newark, NJ**



Professor Zhenan Bao

Department of Chemical Engineering
 Stanford University, Shriram Center
 Stanford, CA

**“Skin-inspired Organic
 Electronics”**

[Seminar information](#)

MIDDLE ATLANTIC REGIONAL MEETING MARM 2023

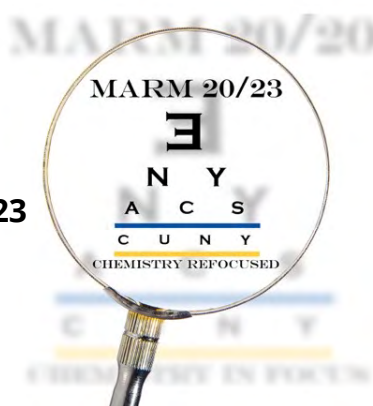
Where: CUNY Graduate Center
& St. John's University

Date: **Friday, June 9, 2023**
& Saturday June 10, 2023

Time: 8:30 AM – 9:00 PM

[Abstracts due March 6, 2023](#)

[Register here](#)



The call for papers for the [2023 Middle Atlantic Regional Meeting](#), which the New York ACS is hosting, has been issued. The technical sessions will take place on Friday, June 9, 2023 at The Graduate Center of the City University of New York, in New York City kitty-corner from the iconic Empire State Building. The regional Chemagination competition and high school teacher programming will be held the following day at St. John's University in Queens, NY.

Details, including names and contact information for program and session chairs, can be found on the meeting website at www.marm2023.org. The final program summary will be published in C&EN in the Spring; the online program will be available in late May.

The conference will highlight technical advances in chemistry that focus on improving people's lives. In addition to technical symposia and poster sessions, MARM2023 will also feature a plenary lecture, a 50-, 60-, 70-year member luncheon, an industrial exhibition, graduate school recruitment fair, employment programming an ACS Governance Social, and an awards dinner.

The symposium sessions include "Flavor and Fragrance Chemistry"; "Cosmetic Chemistry" in partnership with the [New York Society of Cosmetic Chemists](#); "Environmental Chemistry"; "The Chemistry of Life Sciences"; and "Materials Chemistry"; as well as two poster sessions. Symposium may also feature short data-blitz talks selected from the poster abstracts.

MARM2023 also include a '[Promotion to Full Professor](#)' workshop sponsored by the MetroWomen Chemists Committee and a 'Social Media Social' to illustrate best practices for the use of social media and connect the region's attendees.

ACS's Meeting Abstracts Programming System (MAPS) is opens and accepting abstracts. Please visit either the [symposium website](#) or [MAPS](#) to submit an abstract.

[Abstracts are due March 6, 2023](#)

[Register here](#) before April 30, 2023 for Early Bird Rates

Nominate a colleague for a [MARM Award](#)

Exposition & Sponsorship opportunities still available – see following page

The MARM2023 organizers encourage all attendees to utilize public transportation to the meeting. The CUNY Graduate Center is two avenues east of New York's Penn Station which is served by Amtrak and the Long Island Railroad. New Jersey Transit's PATH trains service to 33rd Street.

SPONSORSHIP AND EXPOSITION OPPORTUNITIES AT MARM2023

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*You may choose to sponsor a technical session, poster session, workshop, luncheon, coffee break, raffle, or general purpose.

Sponsorship Level	Fee	Exhibit Table	Signage/Event Placard	Meeting Program/June Indicator Issue	Website Logo/Link	Registration
Platinum	\$2500	Yes	Yes	Full Page	Yes	2
Gold	\$1000	No	Yes	Full Page	Yes	2
Silver	\$500	No	Yes	½ Page	Yes	1
Bronze	\$300	No	Yes	¼ Page	Yes	1

ACS MARM2023 Exhibit Opportunities* on June 9, 2023

(Early Bird by March 1, 2023; payment in full by **April 15, 2023** to ensure full benefits.)

*Academic tables to be located where student programs run.

Exhibitor Categories	Cost			Benefits
	MARM Returning Exhibitor	Early Bird	Regular	
Commercial	\$300	\$350	\$400	Power – 1st come / 1st served 5 ft. rectangular table Two chairs Two meeting registrations Meeting Attendee Contact Info Logo on Website, Program
Academic	\$250	\$275	\$300	



WESTCHESTER CHEMICAL SOCIETY**Science and US History of Whisky Making**

Speaker: **Victor Margiotta, M.S.**, President
VMAR Food Labeling Association, LLC

Date: **Wednesday, March 8, 2023**

Time: 5:30 PM Refreshments

6:00 PM Seminar

Place: In-person: Gateway 110
Westchester Community College
or hybrid option via [Zoom](#)



[Download Flyer](#)

Abstract: The presentation will open with a brief discussion of the history and evolution of spirits production in the US. A description of the technical stages of production, including grain selection, mashing & starch conversion, fermentation, distillation, and aging, the chemistry of each stage, and how each affects the generation of different flavor characteristics. It will discuss the different compounds produced (known as “congeners”), their organoleptic character and how are they used. Finally, a brief discussion on the role of government, including standards of identity of various spirits products, labeling and taxation.

Biography: Victor Margiotta is president of VMAR Food Labeling Associates LLC, which provides regulatory advice to small and medium-size companies to help create compliant food labels for the US market. Previously, Vic spent 42 years in the food & beverage industry, most recently as Director of Regulatory Affairs - Global Compliance, for PepsiCo worldwide. Prior experience includes SoBe Beverages, Joseph E. Seagram & Sons, and Nabisco Brands.

After receiving his BS in Biology from Manhattan College in 1973, Vic has held various management roles in the food industry, including in regulatory affairs, product development, fermentation research, microbiology, quality assurance and quality control. He is a member of IFT, and has a MS in Technology Management from NYU-Polytechnic University.

Vic and his wife are residents of the Hudson Valley, NY, and enjoy time at the shore in Bethany Beach, DE. They have two grown children and four grandchildren.



Registration Open
Housing Closes March 2nd



Abstracts due April 4th

HUDSON-BERGEN SUBSECTION**24TH ANNUAL STUDENT RESEARCH SYMPOSIUM - CALL FOR ABSTRACTS**

This is a virtual 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 are also being recognized (they receive the Hudson-Bergen Chemical Society Award consisting of a certificate and a gift certificate). All the presenters will receive certificates of participation. Students who wish to make virtual presentations must send an abstract via e-mail to mleonida@fdu.edu, by **April 14, 2023**. 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 will feature the lecture:

Color Science – Optics in Cosmetic Applications

presented by

Mr. Giorgino D. Macalino

Estée Lauder Companies

Date: **Friday, April 28, 2023**
via [Zoom](#)

RSVP: **By April 14, 2023 via** email to
[Dr. Mihaela Leonida](#) or
[Mr. Thomas Drwiega](#)

Times: 3:00 PM – Student Presentations
5:00 PM – Awards
5:15 PM – Speaker Lecture



[Download flyer](#)

Abstract: Colors in makeup application tend to be superficial characteristics that are often viewed with a subjective observation. As a color cosmetic chemist or formulator continues to acquire skills in developing various cosmetic products, fundamental knowledge on color science and optics becomes essential in order to produce a variety of colors, color combinations, and optical effects that are desirable for today's makeup consumers. Fundamental theories of color science will be discussed together with classification of colorants and their interaction with a variety of substrates and solvents. Thermal and photo stability as it relates to the shelf lives of cosmetic products will be presented to gain understanding of the longevity of colorants in finished product forms. In addition to basic color science applications, optics will also be introduced and its use in producing a variety of visual effects from single, interference and multi-variable color shifting effects. It will reveal the importance of light, inorganic coatings and the electromagnetic spectrum to produce spectacular color effects that WOW makeup users.

CALL FOR ABSTRACTS: 2023 UNDERGRADUATE RESEARCH SYMPOSIUM

The Student Activities Committee of the New York Section of the American Chemical Society would like to invite you to attend the **70th Annual Undergraduate Research Symposium** to be held at LaGuardia Community College, CUNY ([directions](#)) on **Saturday, May 6, 2023 from 8:00AM – 2:00PM**. This hallmark year also marks our return to an in-person symposium. The symposium provides an excellent opportunity for undergraduate chemistry students in the New York Metropolitan Area to present the results of their research. This year's in-person symposium features the following two Keynote lectures:

***Early Development of Macrocyclic Peptides as Therapeutic Lead Compounds***

Christopher John Hipolito, Ph.D.
Associate Principal Scientist
Merck & Co.

***A Recipe for Eggs and Sperm: Is Blimp1 a Conserved Ingredient?***

Gerardo Reyes Chavez
Ph.D. Student
Brown University

Presenters are asked to register as 'Student'. Students that wish to attend the event but are not presenting may register as 'Guests'.

Abstract submission is open – [download the template here](#).

Abstract submission deadline: April 1, 2023
Registration Deadline: April 15, 2023



**The Indicator is posted
to the web 1ST of the
month at**

<http://www.theindicator.org/>

CHEMISTS CELEBRATE EARTH WEEK 2023 – NEW YORK ACS

Join the New York ACS at New York's famous Jones Beach as we celebrate Earth Week at the newly renovated [Energy and Nature Center](#)! What a perfect place to celebrate this year's theme of 'The Curious Chemistry of Amazing Algae'.

The 10th annual event includes an introduction of Jones Beach by the Education Team, a tour of the Nature Center, a self-guided hike through the beach and preserve area, as well as snacks, lunch, and cool earth day gifts!

[Registration](#) is FREE, but space is limited so everyone must register (including children). Once capacity is reached, registration will be closed. There is a parking fee to enter Jones Beach. [Click here to register now.](#) For more information contact: [Prof. JaimeLee Rizzo](#), CCEW Coordinator.

Date: **Sunday, April 16, 2023**
[Register here for FREE](#)
 Register by April 8, 2023

Time: 11:00 AM – 3:00 PM



Hope to "sea" you there!

[Download Flyer](#)

COMMITTEE ON THE HISTORY OF THE NEW YORK LOCAL SECTION

Over the past twenty-three years the New York Section has participated in the designation of seven National Historic Chemical Landmarks and four New York Section Historic Chemical Landmarks. A brief description of these National and local section landmarks may be found on the NY Section [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 an historic chemical landmark. The Committee on the History of the NY Section will consider all nominations. In addition to a particular achievement, an historic library, building or association may be worthy of this distinction. Please contact the Committee Chair, [Dr. Neil Jespersen](#), for more information

WESTCHESTER CHEMICAL SOCIETY DISTINGUISHED SCIENTIST AWARDEE

The Westchester Chemical Society is honored to announce that its 2023 Distinguished Scientist Award will be granted to **Dr. Ipsita A. Banerjee**, Chair of the Chemistry Department at Fordham University. Dr. Banerjee received the New York ACS Section's Outstanding Four-Year Undergraduate College and University Chemistry Faculty Teaching Award in 2022. She has mentored over 80 undergraduate students, and received an Outstanding Research Mentorship Award from the [National Council of Undergraduate Research](#). Dr. Banerjee has published over 100 peer-reviewed journal articles and has either co-edited or written five book chapters, and has participated in over 230 conference presentations (National/ Regional/ International). She will be recognized for her development of a broad range of molecularly designed supramolecular soft materials that can function as bioactive scaffolds for targeted nanoscale drug delivery and tissue regeneration.

The 2023 Distinguished Scientist Award will be presented to Dr. Banerjee on Wednesday, April 27, 2023 at Pace University in Pleasantville when the Student Awards of the Westchester Chemical Society will also be handed out. She will give a talk on her research, followed by dinner.

The event will be in-person with a Zoom option. Additional details will be provided in the April issue of this publication.

SEMINAR SPEAKERS WANTED

The New York Section wants to add to add you 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!



Department of
Chemical & Biomolecular Engineering

Spring Lecture Series



Kathryn Whitehead
Carnegie Mellon University

Date: Friday, April 21st, 2023

Time: 10:45am – 12:00pm

Location: Pfizer Auditorium (5 MetroTech Center - Dibner Hall)

Distinguished Science Lecture Honoring Professor Herbert Morawetz

Lipid nanoparticles for RNA delivery: COVID-19 vaccines, chemistry, and beyond

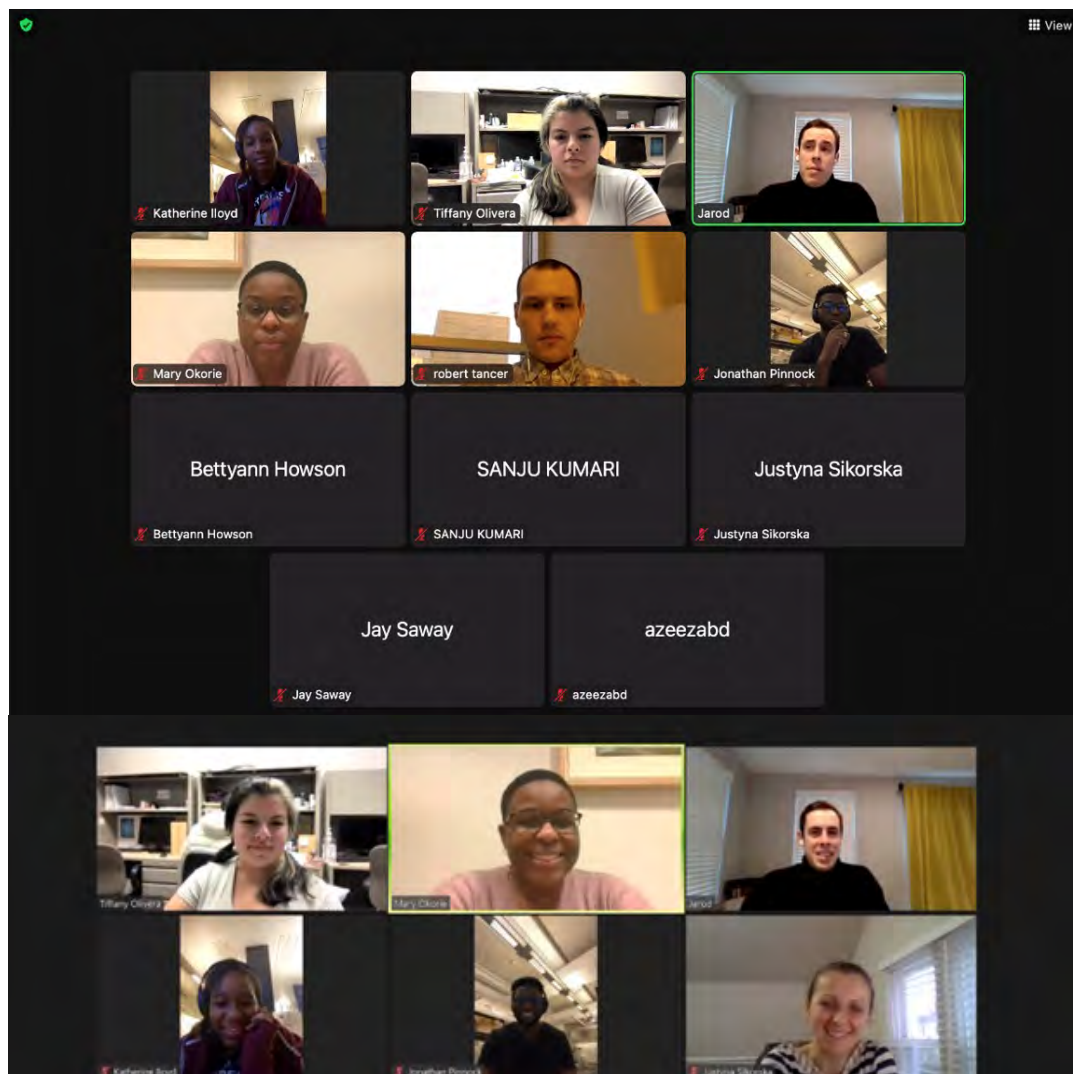
Messenger RNA (mRNA) therapeutics have taken center stage thanks to the successful deployment of the SARS-CoV2 mRNA vaccines in hundreds of millions of people worldwide. These vaccines were made possible by a herculean effort to overcome the most significant barriers that have hindered translational efforts. Arguably, the largest challenge has been that RNA molecules do not readily enter their cellular targets within the body. This is because they are large ($10^4 - 10^6$ g/mol) and negatively charged; they do not have favorable biodistribution properties nor an ability to cross the cell membrane of target cells. In response to these issues, industrial and academic laboratories, including my own, have created lipid nanoparticles that spontaneously package RNA and deliver the RNA to key cellular targets in vivo. Here, I will describe biodegradable, ionizable lipid-like materials called 'lipidoids' that my lab has used to create RNA-loaded lipid nanoparticles that induce protein expression in a variety of tissues in mice. This talk will describe an especially potent lipid nanoparticle, its chemical characteristics that confer efficacy, and potential applications, including delivery to the pancreas. Together, these data advance our understanding of lipid nanoparticle chemistry and are expected to contribute to the successful formulation of next-generation mRNA therapies.

Contact: Melissa Parsowith mparsowith@nyu.edu and Dan Aliotta dan.aliotta@nyu.edu

MEETING REPORTS

NJACS YOUNGER CHEMISTS COMMITTEE

The North Jersey ACS Younger Chemists Committee held their Spring 2023 Seminar Series featuring Dr. Jarod Grossman a Senior Scientist in the Software & Informatics Division at Agilent Technologies on January 24, 2023, via Zoom. Dr. Grossman held an engaging discussion with both undergraduates and graduate students, where he discussed how he translated his academic studies into his current role at Agilent Technologies.



Be on the lookout for more events they have planned and follow their social media pages for upcoming events!

NJYCC Social Media Handles

Website: <http://www.njacs.org/ycc>

Email: njacs.youngerchemistscommittee@gmail.com

Facebook: NJACS YCC Public Group

Twitter: NJACSYCC

Instagram: @njacsycc

NJACS & NYACS LEADERS ATTEND THE ACS LEADERSHIP INSTITUTE

The Leadership Institute gave me the opportunity to learn more about my inner strengths and how to utilize them as a leader within ACS. I had so many fruitful conversations with some members of the ACS Board of Directors who were interested in knowing about my future profession and gave great advice! I enjoyed every moment of the conference, and make great connections!

– Mary Chioma Okorie

The North Jersey ACS Younger Chemists Committee Co-Chair, Mary Chioma Okorie, a Ph.D. candidate in Chemistry at Seton Hall University, attended the Younger Leaders Track at the annual American Chemical Society (ACS) Leadership Institute, as a recipient of the Younger Chemists Committee Leadership Development Award. The event was held in Atlanta, GA from January 20 - 22, 2023.



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NJACS & NYACS LEADERS ATTEND THE ACS LEADERSHIP INSTITUTE (continued)

Dr. Ping Furlan, the Chair-elect of the New York American Chemical Society (ACS) attended the ACS Leadership Institute held January 20-22 in Atlanta, GA. The ACS organizes this conference to inform the local section leaders about the governance structure of the ACS, its resources, and support, to help them learn both management and leadership skills that enable them to be successful leaders within the ACS, and to provide a unique and invaluable networking opportunity.

The Institute allowed me to meet with lots of wonderful people, listen to their volunteering stories, concerns, and successes, and learn a great deal from them

– Dr. Ping Furlan.



At the conference, Dr. Furlan (center of photo above) shared with the attendees the successful story of the New York ACS' ChemLuminary award winning "#IAMNYACS" social media campaign project, which was well received. The Project was carried out by the NYACS' Minority Affairs Committee and led by Drs. Brian Gibney, Alison Hyslop, and Joe Serafin. The NYACS was also invited to present a poster at the conference describing its ChemLuminary award-winning activities. Thanks to Dr. Rita Upmancis, the 2021 Chair, who prepared a great poster that was aesthetic, effective, and inviting. Also attending the Leadership Institute were Dr. Ruben Savizky (at left in photo above) and Dr. Maria Contel (at right in photo) of the New York ACS.



Dr. Betty Jo Chitester (left) of the Erie Local Section, Dr. Mine Ucak-Astarlioglu of the Mississippi Local Section (right), and Dr. Ping Furlan (middle) of the New York Local Section at the ACS Leadership Institute.

2023 NEW YORK SECTIONWIDE CONFERENCE

The New York Section's Annual Sectionwide Conference was held at St. John's University January 28th. The conference offered attendees the opportunity to meet with colleagues and ACS friends after another successful year and plan events honoring Dr. Marie Maynard Daly. The conference included award presentations, two keynote addresses, introductions of the 2023 election candidates, and planning sessions for the Section's 2023 activities. Mary Virginia Orna, Ph.D., New York Section Chair for 2023, welcomed everyone and acknowledged the outstanding service of the Section's volunteers during 2022.

PROF. KATHLEEN KRISTIAN THANKED FOR HER SERVICE AS SECTION CHAIR

At the Sectionwide Conference award ceremony, Prof. Kathleen Kristian of Iona University (right) received a well-earned ACS past chair pin along with an engraved ACS plaque in thanks for her excellent and dedicated service to the New York Section as its Chair in 2022. The New York ACS wish her continued success.



PROF. MARLON MORENO RECIEVES 2022 OUTSTANDING SERVICE AWARD



The 2022 Outstanding Service Awardee, Prof. Marlon Moreno, Queensborough Community College – City University of New York, was honored for his extraordinary service and dedication to the Section. Marlon has been a quiet force behind a number of successful programs including the Chemistry Challenge and National Chemistry Week. Marlon also serves at the Chair of the Information Technology Committee for the New York ACS.

NEW YORK SECTIONWIDE CONFERENCE (continued)

OUTSTANDING CHEMISTRY TEACHING AWARDS

The three college chemistry teaching awards were presented as follows (pictured left-to-right): Outstanding Two-Year College Chemistry Teaching Award to Dr. Sunej Hans, Bronx Community College (with New York ACS Chair Mary Virginia Orna at right); Outstanding Four-Year University with Graduate School Chemistry Faculty Teaching Award to Dr. Sabesan Yoganathan, St. John's University; and Outstanding Four-Year Undergraduate College Chemistry Teaching Award to Dr. Sunghee Lee, Iona University. Congratulations to all the awardees!



KRISTEN DRURY, M.A. HONORED AS 2022 NICHOLS FOUNDATION HIGH SCHOOL TEACHER AWARDEE

Kristen Drury, M.A., of the William Floyd High School in Mastic Beach, NY, was feted at the Sectionwide Conference with the 2022 [Nichols Foundation High School Teacher Award](#). She was honored for her culturally responsive classroom that uses process oriented guided inquiry learning (POGIL) to strengthen students' process skills such as critical thinking, communication, problem solving and teamwork.

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



CANDIDATES FOR NEW YORK ACS OFFICER ELECTIONS ANNOUNCED

Following the award ceremony, Prof. Ping Furlan, 2023 New York Section Chair-elect, presented the names of the candidates for the upcoming 2023 elections and recognized the candidates who were attending the meeting.

NEW YORK SECTIONWIDE CONFERENCE (continued)***DR. MARIE MAYNARD DALY***

Prof. Paris Svoronos (below on left) and Robert Hoyte (below at right) each delivered keynote addresses that celebrated Dr. Marie Maynard Daly's life and ongoing legacy. Prof. Svoronos provided the historical context of her accomplishments while Prof. Hoyte informed the audience about this year's efforts to celebrate Dr. Marie Maynard Daly.



Dr. Marie Maynard Daly was an African American pioneer in chemistry whose life should serve as a role model for every young woman who aspires for success in the sciences and beyond.

– Dr. Paris Svoronos' Keynote Lecture



A suite of once and future New York ACS Chairs enjoying the Sectionwide Conference. From left, Rita Upmavis (2021 Chair), Marc Walters (2008 Chair), Eric Chang (candidate for 2024 Chair-Elect), Ping Furlan (2023 Chair-Elect) and Alison Hyslop (2016 Chair).

NEW YORK SECTIONWIDE CONFERENCE (continued)

PROJECT SEED STUDENTS PRESENT THEIR RESEARCH

Following the keynote lectures there were video presentations by New York Section Project SEED Students Yara Aguilar (junior, left in photo) and Alessandro Ali (right in photo) – mentored by Prof. Aaron Moment, Columbia University (right, rear in photo) and James Pelaez (senior, second from left in photo) – mentored by Prof. Ged Parkin, Columbia University (center). Ms. Nadia Makar (center-right in photo) was thanked for her tireless efforts in bringing Project SEED to our students. We wish all the Project SEED students the best of luck with their future scientific endeavors. [Applications are now being accepted for Summer 2023.](#)



PLANNING SESSION

The annual planning session work of the New York Section was held during the last portion of the conference where goals and activities for 2023 were discussed. The Educational Activities Committee discussed plans for Chemagination, National Chemistry Week, and educational programming at MARM2023. The History of the New York Section committee focused their planning efforts on the May 19th Dr. Marie Maynard Daly ACS Historic Chemical Landmark dedication ceremony at Columbia University. Each committee chair gave a recap prior to close the Sectionwide Conference. Thank you to all who attended the meeting and we look forward to seeing you at future events.

NEW YORK ACS PARTNERED WITH THE NEW YORK HALL OF SCIENCE AND PEPSICO FOR THE 2022 NATIONAL CHEMISTRY WEEK CELEBRATION

The New York ACS celebrated National Chemistry Week (NCW) 2022 with our partners at The New York Hall of Science (NYSCI). This year's theme of "Fabulous Fibers: The Chemistry of Fabrics" was highlighted throughout the events. The festivities began with a virtual kickoff on October 16, 2022 from 11:00 am to 12:30 pm which was tied to the grand public reopening of New York Hall of Science (NYSCI) that took place on October 15, 2022.



PepsiCo volunteers help the visitors make their favorite drinks.

Dr. Jennifer Albert helps the visitors create their artful bookmarks by paper chromatography.

The NYSCI has experienced several difficult closures due to pandemic and extensive hurricane damages since spring 2020. This kick-off on Zoom and Facebook Live included remarks by Dr. Kathleen Kristian, the NYACS Chair, and Ms. Kiryn Hoffman, the NYACS' Chief Advancement Officer, who restated the common mission of the ACS and NYSCI about STEM learning and inclusion, and the shared desire of continued partnership from both organizations. This was followed by the keynote address by Professor Margaret Frey of Cornell University, an expert in the field of polymers and fabrics, who enlightened the event attendees with her "3000 Years of Chemistry in Our Clothes" presentation. The Committee Co-Chairs Mr. Joseph Wiener and Dr. Ping Furlan moderated the event and introduced the speakers, respectively. [Watch the YouTube video here.](#)



Volunteers from the United States of Merchant Marine Academy celebrate the fabulous fibers.



Volunteers from Columbia University demonstrate "too cool for color".

NEW YORK ACS PARTNERED WITH NYSCI AND PEPSICO FOR THE 2022 NATIONAL CHEMISTRY WEEK CELEBRATION (continued)

The following Saturday, October 22, New York ACS hosted a live in-person celebration at the NYSCI. After being virtual for two years, volunteers from local colleges, universities, and companies were excited to return back to NYSCI and put on live chemistry demonstrations to hundreds of community youths and their families. On the day, a large, eye-catching, and inviting NCW banner was displayed outside the NYSCI near the main entrance. Inside the main entrance, a welcome table was set up where volunteers greeted visitors with program brochures, chemistry demo passport cards, and guided them to the activity sites.



Dr. Paul Sideris, the NCW Committee Co-Chair, helps ensure that all youth visitors performing the activities are provided with safety glasses and receive the NCW gifts with all stamped chemistry demo passports.

This year, the NYSCI partnered with the NYACS with five mobile activity stations that could be seen throughout the museum. During the day, PepsiCo along with eight student chapters hosted their theme-related, colorful, and fun-filled activity tables inside the Viscusi Gallery which were crowded by the inquisitive youngsters who obviously loved their experience and the chance to interact with their “role-models”. A second welcome table was set up near the Viscusi Gallery where youngsters were provided with safety glasses upon entering and given NCW gifts upon leaving when they proudly presented their all stamped passport cards. It was a great day for all who were involved! In addition, the New York ACS sponsored an illustrated poem contest with the winners being submitted to national competition.



Volunteers from the New York University explore how structure affects the properties of various fabulous fibers.



NY ACS Chair Kathleen Kristian greets the visitors with Mr. Joseph Wiener, the NCW Committee Co-Chair

NEW YORK ACS PARTNERED WITH NYSCI AND PEPSICO FOR THE 2022 NATIONAL CHEMISTRY WEEK CELEBRATION (continued)



Volunteers from St. John's University show how beautiful art work can be created on fabric by pounding flowers.

Volunteers from Iona University help the visitors make colorful tie-dye t-shirts with eco-friendly dyes.

Our heartfelt thanks to the following 2022 NCW sponsoring/participating organizations and their volunteers for their support, dedication, creativity, and diligence that helped make our return to NYSCI, and this largest and popular area chemistry outreach event a spectacular success:

1. New York ACS (NCW gifts, safety glasses, giveaways, passports, photo release forms, survey forms)
2. New York Hall of Science (cool chemistry, jelly marbles, designing with fabrics, stop motion, elephant toothpaste)
3. PepsiCo (Make your own beverage, guess which beverage floats)
4. Cornell University ("3000 Years of Chemistry in Our Clothes" virtual presentation)
5. College of Mount Saint Vincent (Acid-base indicators, color-changing handkerchief)
6. Columbia University (Too cool for color)
7. Guttman Community College (Making nylon)
8. Iona University (Eco-friendly dyes)
9. New York University (Exploring fabulous fibers)



Dr. Ji Kim and her student demonstrate the chemistry of turning liquids into amazing nylon.



Volunteers from College of Mount Saint Vincent demonstrate the "magic" of color changes with household materials.

OPPORTUNITIES

GRANT OPPORTUNITIES

ACS PETROLEUM RESEARCH FUND



Grant proposals for funding fundamental research in the petroleum field are now being accepted.

DUE MARCH 10, 2023

[Learn more](#)

GLOBAL INNOVATION GRANT

Up to \$5,000 may be requested to support ACS units for internationally collaborative and innovative activities/events.

DUE APRIL 9, 2023

[Learn more](#)

SENIOR CHEMISTS COMMITTEE DIVERSITY, EQUITY, INCLUSION AND RESPECT (DEIR) GRANT

Grants of \$500 are available for projects that advanced ACS's core values of diversity, equity, inclusions and respect which are led by senior chemists.

DUE MAY 31, 2023

[Learn more](#)

SENIOR CHEMISTS MINI-GRANT

Local Sections may request \$500 to support an event or activity to increase the engagement of senior members.

DUE MAY 31, 2023

[Learn more](#)

LOCAL SECTION MEMBER ENGAGEMENT AND ENHANCEMENT(MEET) GRANT

Local Sections may request up to \$2000 to strengthen and build community by better engaging their current membership, or by recruiting new members.

DUE MAY 31, 2023

[Learn more](#)

AWARDS

[Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences](#)

Deadline: March 1, 2023

[E. Ann Nalley Middle Atlantic Regional Award for Volunteer Service to the ACS](#)

Deadline: March 8, 2023

[ACS Division of Chemical Education Middle Atlantic Region Award for Excellence in High School Teaching](#)

Deadline: March 8, 2023

[E. Emmet Reid Award in Chemistry Teaching at Small Colleges](#)

Deadline: March 8, 2023

WOMEN CHEMISTS COMMITTEE OVERCOMING CHALLENGES AWARD

Recognizes an individual undergraduate for her efforts in overcoming hardship to achieve success in chemistry

DUE APRIL 1, 2023

[Learn more](#)

TEACHER SCHOLARSHIPS

ACS HACH POST-BACCALAUREATE TEACHER SCHOLARSHIP

Provides up to \$6,000 in financial support for recent graduates and graduate students with an interest in becoming chemistry teachers.

DUE May 1, 2023

[Learn more](#)

ACS HACH SECOND-CAREER TEACHER SCHOLARSHIP

Provides up to \$6,000 in financial support for chemistry professionals to obtain their masters degree in education or teacher certification in chemistry.

DUE MAY 1, 2023

[Learn more](#)

For High School Students

Liberty Science Center's Partners in Science Program

[Due March 17](#)

ACS Project SEED

[Due March 31](#)

ChemClub Student Scholarship

[Due March 31](#)

For Undergraduates

ACS Scholars Program

[Due March 1](#)

SLAS – NOBCChe Scholarship

[Due April 1](#)

ACS Bridge Program

[Due March 15](#)

Priscilla Carney Jones Scholarship

[Due May 1](#)

Student Chapter Awards

[Due May 31](#)

Project SEED

ACS Project SEED
Chemistry for Life®

ABOUT:

Project SEED is a summer fellowship program for high school students. Students spend 8-10 weeks in a lab working on a project with a mentor and additional lab members.

BENEFITS:

- Paid fellowship (\$3,200 - \$3,800)
- Hands-on or virtual research experience in a lab
- Great addition for your resume and college application
- Scholarship opportunities for college (\$5,000 - \$20,000 in scholarships over 1-4 years)

ELIGIBILITY:

- Interest in chemistry/science
- Qualify as low-income based on the program criteria (refer to our website for more information)
- Successfully completed at least one course of high school chemistry

APPLICATION OPENS:

Early February

Website: For more info on program dates, eligibility criteria, and to apply visit www.acs.org/projectseed

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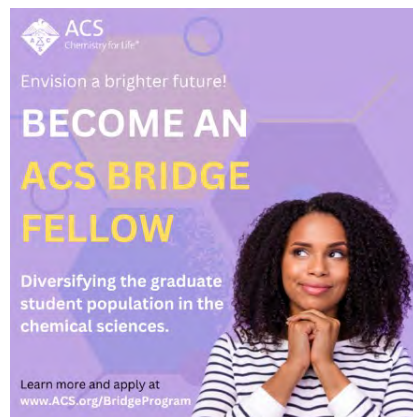
**Ongoing mentorship +
Professional networking and support**

Applications due **April 1, 2023** | Visit slas.org/nobcche to apply

FOR UNDERGRADUATES

The [ACS Bridge Program](#) is accepting applications for 2022-2023 ACS Bridge Fellows. Enroll in a 1 to 2 year Bridge Experience that provides research experience, advanced coursework, mentoring, & coaching to prepare your graduate school application. **Application Deadline is March 15, 2023**

[More info here](#)



SAFETY IS EVERYONE'S CULTURE

ACS CHAS Peer Led Workshop:  ACS Technical Division
Chemical Health & Safety (CHAS)

Empowering academic researchers to strengthen safety culture

Led by Adelina Oronova, Michigan Technological University and Christy Lynn Dyer, University Of Memphis
Sunday, March 05, 2023; 2 - 5:30 PM Eastern Time
Registration for this workshop is \$25 per participant.
This **workshop** is directed at frontline researchers in academic institutions: **graduate students, postdoctoral scholars, and undergraduate students.** Faculty and safety staff are also very much encouraged to participate.

Workshop Goals:

- Educate participants about the value of risk assessment
- Guide participants towards gaining awareness of safety culture messages from leadership at their institutions
- Empower participants to expand their safety networks and develop laboratory safety teams

<https://dchas.org>

Join the Division of Chemical Health & Safety for a 3.5-hour workshop directed at frontline researchers in academic institutions from undergraduates to faculty. Topics discussed include: risk assessment of research projects, understanding the often confusing safety hierarchies of academic institutions, and graduate student led Laboratory Safety Teams. \$25 registration fee.

[Register here by March 5](#)

FOR SOFT MATTER GRADUATE STUDENTS AND POSTDOCS

Senior graduate students and postdoctoral fellows interested academic careers in soft matter, broadly defined, are invited to apply for this two-day workshop that provides mentorship and network building. Chemists, chemical engineers, and materials scientists planning to become independent academic will learn about the application process, interviewing, negotiating, research proposals, and running a research group. Lodging, food, and reasonable travel costs will be provided.

[Apply here by April 3](#)

Call for Applications

Future Faculty Workshop 2023

To be held at the Texas A&M University, June 28-30, 2023
Application deadline: April 3rd, 2023

Overview: This two-day workshop will provide mentorship and network building to senior graduate students and postdoctoral fellows aspiring to become independent academic faculty in soft matter, broadly defined, including chemistry, chemical engineering, materials science, and related fields. Topics will center on the application process, interviewing, negotiating, research proposals, and running a research group. Lodging, food, and reasonable travel costs will be provided.

Co-Organizers:
Thomas Egpa (UTD), LaShawna Kiley (UDel), Rod Plesley (Pittsburgh), Emily Pantzer (TAMU), Hardline Ardaha (UC Irvine)

Confirmed mentors:
Craig Hawker (UCSB), Jerald Dumes (Harvard), Rachel Letten (UNH), Symone Alexander (Auburn), Melissa Grunlan (TAMU), Bekka Klausen (JHU), Marco Giles (Prairie View A&M), Jodie Lukhtantova (TAMU), Ying Yang (UN-Bonn), Karen Winkler (TAMU), Michele Calabrese (UMN), Alexa Kuestler (UIUC), Chandler Benjamin (TAMU), Phil Costanzo (Cal Poly), Adrienne Rowles (UT Austin), Jesus Velazquez (UC Davis)

2022 FFW Participants at University of Delaware

Application Process: Senior graduate students and postdoctoral fellows are encouraged to apply. Applicants will complete FFW 101 and applications will include: 1) personal statement about research interests and career goals (1 page maximum); 2) Curriculum Vitae (2 page maximum); Additionally, the applicant should arrange for one faculty mentor to send a reference letter via email. Deadline is April 3rd. Notifications will be made within 4 weeks after applications are due. Applicants from groups historically underrepresented in STEM are highly encouraged to apply. [https://www.acs.org/ffw2023](#)

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