

Qi Gao, Ph.D.  
2022 North Jersey ACS Chair  
*See page 5*



ACS Local Section  
New York



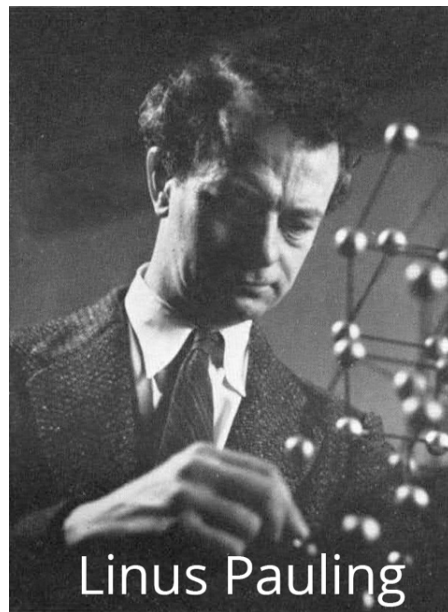
ACS Local Section  
North Jersey

## THIS MONTH IN CHEMICAL HISTORY

Harold Goldwhite, California State University, Los Angeles • [hgoldwh@calstatela.edu](mailto:hgoldwh@calstatela.edu)

In recent columns I examined a series of works that I consider Great Books in Chemistry. I covered the period from Ancient Greece through the 19<sup>th</sup> Century and have solicited ideas from my readers about nominations for Great Books in Chemistry in the 20<sup>th</sup>. Century. So far there have been only 2 nominations, but I live in hope. Meanwhile I make my own choices. This series will not be chronological and will draw heavily on books in my own collection.

“The Nature of the Chemical Bond: and the structure of molecules and crystals” by Linus Pauling was first published in 1939 and was based on a series of Baker Lectures given by Pauling at Cornell University in 1937-38. (Incidentally this lecture series has produced a number of Great Books in Chemistry that I will be commenting on in later columns.) My own copy of this important book is the third edition, considerably revised and updated, published in 1960, and dedicated to G. N. Lewis.



This third edition is quite inclusive and in its over 600 pages uses extensively Pauling's important contribution to bonding theory, namely the concept of resonance. The first section of the book is titled “Resonance and the Chemical Bond”. In this section Pauling describes formally, in terms of wave functions, the concept of an actual molecular structure being, in certain cases, a resonance hybrid of alternative structures. He applies the idea of resonance in this section to the simplest of all molecules, the hydrogen molecule-ion  $H_2^+$ . This is just for starters!

Pauling's scope in this book is very wide. He moves from the electronic structures of atoms and the rules for the formation of covalent bonds to electronegativity and the “Pauling Scale” and the partially ionic character of covalent bonds. Commentaries on bond angles are followed by bonding in coordination compounds and a brief discussion of ligand field theory.

Two chapters give accounts of resonance of molecules among different valence bond structures; and different types of resonance in simple molecules and ions. Sandwiched between these chapters is an introduction to interatomic distances and structures of molecules and crystals. In a subsequent chapter Pauling discusses one-electron and three-electron bonds and electron-deficient compounds including the boranes.

One of the most interesting sections for me is the chapter on the metallic bond, and I can't resist including a couple of personal reminiscences here. I was an undergraduate at Cambridge University in the early 1950s and we had a short course in our inorganic chemistry class on metallic structure, illustrated by bubble tray models. The course was given by Professor Lawrence Bragg, then at the Royal Institution in London. Yes, the Bragg of Bragg's Law, who along with his father won the Nobel Prize in physics in 1915 when he was 25 years old. In the 1980s I had the pleasure of attending a lecture by Pauling at Cal. State, Los Angeles, in the Leon Pape lecture series, and he discussed metallic structures.

The structures of ionic crystals and the sizes of ions includes examples of many crystal types. And the concluding chapter includes a summary of the nature of resonance; the difference between resonance and tautomerism; and the future of the application of the resonance concept. This important book certainly earns its place among the Great Books in Chemistry of the 20<sup>th</sup>. Century.

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# THE Indicator

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

The monthly newsletter of the New York & North Jersey  
 Local Sections of the American Chemical Society.  
 Published jointly by the two sections.

**CONTENTS**

|   |    |
|---|----|
| January 2022 Calendar                                   | 4  |
| Advertisers' Index                                      | 4  |
| North Jersey Chair's Message                            | 5  |
| New York ACS Sectionwide Conference                     | 6  |
| Chemistry of Love                                       | 7  |
| Long Island Subsection                                  | 8  |
| Westchester Chemical Society                            | 9  |
| North Jersey Section Meetings                           | 11 |
| ChemExpo! Report  | 12 |
| Award for Creativity in Molecular Design<br>& Synthesis | 14 |
| For Students  | 15 |
| News from our Partners                                  | 19 |
| Job Board   | 20 |

**EDITORIAL DEADLINES**

|               |                   |
|---------------|-------------------|
| December 2021 | November 16, 2021 |
| January 2022  | December 16, 2021 |
| February 2022 | January 16, 2022  |
| March 2022    | February 16, 2022 |
| April 2022    | March 16, 2022    |
| May 2022      | April 16, 2022    |

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## December Calendar

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### NEW YORK SECTION

**Thursday, December 2, 2021**

Long Island Subsection

See page 8

**Thursday, December 16, 2021**

Westchester Chemical Society

See page 9

*also*

#### Save the Date

**Saturday, January 29, 2022**

New York ACS Section-wide Conference

See page 6

**Saturday, February 12, 2022**

The Chemistry of Love

See page 7

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### Ad Index

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|                           |    |
|---------------------------|----|
| Robertson - Microlit..... | 8  |
| Eastern Scientific.....   | 14 |
| Micron.....               | 17 |

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### NORTH JERSEY SECTION

**Monday, December 13, 2021**

North Jersey Executive Meeting

See page 11

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### CONTRIBUTE TO YOUR INDICATOR



The Indicator is YOUR publication. We invite all interested parties to submit items for publication by emailing the [Editor](#). These may include, the following:

- announcements of upcoming events
- reports from past events
- items of interest
- career/educational advice

Writing an article for your peers is both a personally and professionally rewarding experience. You may choose any topic that you feel would be of interest to your fellow North Jersey and New York ACS members.

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## 2022 NORTH JERSEY SECTION CHAIR'S MESSAGE

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Dear members of the North Jersey Section,

Happy New Year! My heartfelt greetings to all the members of North Jersey Section of the American Chemical Society on the start of a promising 2022. It's my great honor to serve as the Chair of this distinguished section this year. I wish to thank all the section members for providing me this opportunity to represent you as the Chair, and I wish to thank Mirlinda Biba for her excellent leadership in the past year.

I joined NJACS Section in the year of 2017, and over the past 5 years I have come to know the committee members, topical group organizers, as well as our volunteers through seminars, committee meetings and outreach activities. The NJACS Section consists of a group of hardworking individuals who are truly devoted to serve the Section and the community. My goal is to work with you all to make the NJACS Section develop with significant accomplishments in this year. I will seek to engage in topical group growth as well as members' career development; to increase interactions with other local sections, educational institutes, and industry partners to promote education support, network connections, and membership; and to expand efforts for public outreach programs to foster our community mission.

Our Section is lucky to have 10 Topical Groups that focus on various disciplines. They include: Mass Spectrometry, Chromatography, NMR Spectroscopy, Organic Chemistry, Drug Metabolism, Minority Affairs, Women Chemists Committee, Senior Chemists, Younger Chemists and Teacher Affiliates. I encourage you to take advantage of the many activities that are planned by these groups throughout the year, and to network and to share continued education in the region. Bookmark the section website ([North Jersey Section - American Chemical Society \(njacs.org\)](http://North Jersey Section - American Chemical Society (njacs.org))), follow us on social media (LinkedIn: [NJACS - North Jersey Section, American Chemical Society | LinkedIn](https://www.linkedin.com/company/njacs-north-jersey-section-american-chemical-society/)), or join the Newsletter and Topical Group mailing list to get the up-to-date information on all kinds of activities planned by the section and the topical groups.

In addition to the topical group activities, multiple other events may be of your interests. Baekeland Award Symposium, MARM, Project SEED, National Chemistry Week, Chemistry Olympiad, Earth Day, Community Nights at Liberty Science Center, Science Cafes, and partnership with Students 2 Science etc. We welcome everyone, no matter who you are – new to the Section, students, postdoctoral fellows, and professionals – with interests to participate and/or volunteer in these events.

We are exiting a year where the global pandemic has affected everyone's normal life. I hope you and your beloved ones stays well and healthy. With the dedication, creativity and optimism of our membership, we look forward to continuing the excellence that our Section is known for throughout the year!

Qi Gao  
2022 Chair, NJACS Section



## 2022 VIRTUAL SECTION-WIDE CONFERENCE

*Registration is free*

SATURDAY, JANUARY 29, 2022

10:30AM – 1:30PM

### PROGRAM

- 10:30 AM GREETINGS FROM THE ACS NEW YORK SECTION 2022 CHAIR.** **Dr. Kathleen Kristian**  
Iona College
- 10:40 AM AWARD PRESENTATIONS.**
- Service Plaque and Pin to the 2021 ACS New York Section Chair **Dr. Rita Upmancis**  
Pace University
- ACS New York Section Outstanding Service Award for 2021 **Dr. Alison Hyslop**  
St. John's University
- Outstanding Four-Year University with Graduate School Chemistry Faculty Teaching Award **Dr. Aaron Moment**  
Columbia University
- Outstanding Four-Year Undergraduate College and University Chemistry Faculty Teaching Award **Dr. Ipsita Banerjee**  
Fordham University
- Outstanding Two-Year College Chemistry Teaching Award **Dr. Kevin Kolack**  
Queensborough Community College
- 11:00 AM PRESENTATION OF CANDIDATES FOR THE 2022 ELECTIONS** **Dr. Mary Virginia Orna**  
College of New Rochelle  
2022 Chair Elect ACS NY Section
- 11:15 AM KEYNOTE SPEAKER: Dr. Matt Gunsch**  
**Senior Scientist, Analytical Research & Development**  
**Merck Research Laboratories**
- Presentation Title TBA*
- 12:15 PM PROJECT SEED** Presentation by New York Section Project SEED Students.
- 12:30 PM ACS, NEW YORK SECTION COMMITTEE PLANNING SESSIONS FOR 2021.**
- Educational Activities:** (Chemagination, Chemists Celebrate Earth Day, Continuing Education, High School Chemistry Olympiad, National Chemistry Week, Nichols Foundation Teacher Award, Project Seed, Student Membership)  
Chair: Dr. Alison G. Hyslop
- Member Affairs:** (ACS Fellows, Awards, Employment and Professional Relations, History of the New York Section, Indicator, Membership, Outstanding Service Award)  
Chair: Dr. Joseph M. Serafin
- Program Review:** (Subsection and Topical Discussion Group Chairs)  
Chair: Dr. Anne T. O'Brien
- Public Affairs:** (Academe and Industrial Relations, Environmental Chemistry, Fund Raising, Government Affairs, Information Technology, Public Relations, Speakers Bureau)  
Chair: Dr. Robert P. Nolan
- 1:00 PM REPORTS FROM THE CHAIRS OF THE COMMITTEE PLANNING SESSIONS.**
- 1:15 PM CONCLUSION OF THE MEETING**

## NEW YORK SECTION MEETINGS

### BOARD MEETING DATES FOR 2022

The dates for the Board Meetings of the ACS New York Section for 2022 have been selected and approved. Please note, the meeting date has changed to Monday and all meetings may be joined virtually except for the Nichols Symposium.

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.

All 2022 Board Meetings will be held as hybrid meetings from the Iona College campus ([directions](#)). Prof. Kathleen Kristian will Chair all meetings. The meetings will start at exactly 6:30 PM.

The board meetings dates are, as follows:

- Saturday, January 29, 2022** (virtual only)  
New York ACS Section-wide Conference
- Monday, February 28, 2022** (virtual only)
- Monday, March 28, 2017** (hybrid)
- Friday, April 8, 2022** (in person only)  
William H. Nichols Symposium and  
Medal Award Dinner at the Sonesta  
Hotel, White Plains, NY.
- Monday, June 13, 2022** (hybrid)
- Monday, September 19, 2022** (hybrid)
- Monday, November 21, 2022** (hybrid)

Please note that there will also be a virtual meeting of the Finance Committee on Thursday, **November 10, 2022**.

More information will be posted in future monthly issues of *The Indicator* and on the New York ACS website.

### THE CHEMISTRY OF LOVE

Join the New York ACS in celebrating Valentine's Day virtually this year. Learn about the chemical and biochemical aspects of love including the impact of endorphins and how fragrances and flavors play a role. [Registration](#) is \$5 per person for this in-person event, **seats are limited** so [register](#) early.

**Speaker:** Dr. Eric Chang  
Pace University

**Date:** **Saturday, February 12, 2022**

**Place:** Bianco Room, Pace University

**Time:** 11:00 AM – 2:00 PM in person  
[Registration](#) is \$5 and required

ACS Local Section  
New York  
The Chemistry of Love

The Chemistry of Love  
Pace University  
February 12, 2022 11:00 am - 2:00 pm  
Bianco Room

There is a holiday dedicated to it, millions of poems about it, industries built around it, and no other word to perfectly describe it: LOVE. This four-letter word is the most fundamental human need.

What are the chemical aspects of "love"?  
Learn and discuss endorphins and how to increase this important hormone, foods that release endorphins and the biochemical process involved, flavors and scents associated with "LOVE" and the chemical components of such, and the beautiful and complex human heart.

Keynote Speaker  
Dr. Eric Chang

For more information, contact:  
Dr. JaimeLee Rizzo  
Coordinator, "Chemistry of Love"  
jrizzo@pace.edu

Supported in part by an Innovative Project Grant  
from the Local Section Activities Committee

**LONG ISLAND SUBSECTION****Dynamics and Potential Energy Surfaces of Singlet Oxygen Oxidation of 8-Oxo-2'-deoxyguanosine and its Methyl Analogue: Elucidated by Guided-Ion-Beam Experiment and Multi-reference Electronic Structure Computation**

**Speaker:** Ms. May Myat Moe  
Queen College – CUNY  
The CUNY Graduate Center

**Date:** Thursday, December 2, 2021  
**Time:** 6:00 PM via [Zoom](#)  
Registration is free and required



**Abstract:** 8-Oxo-2'-deoxyguanosine (OG) is a common DNA lesion resulting from oxidatively generated damage. The formation of OG and its secondary reaction with electronically excited singlet oxygen ( $^1\text{O}_2$  is a reactive oxygen species generated *in vivo*) are involved in mutagenesis, apoptosis and photodynamic therapy for cancer. This work focuses on reaction of the radical cation of OG with singlet oxygen, aims to provide a molecular-level description for the concurrent ionization radiation damage and singlet oxygen oxidation of DNA nucleobases. The formation of radical cations of 8-Oxo-2'-deoxyguanosine ( $\text{OG}^{+\bullet}$ ), and their 9-methyl analogues are realized in the gas phase by electrospray ionization (ESI) guided-ion-beam tandem mass spectrometry. Their reactions are examined by the measurement of reaction product ions and cross sections as a function of collision energy ( $E_{\text{col}}$ ) from which reaction thermodynamics is measured. One unique feature of this reaction is its multiconfiguration potential energy surface arising from the mixed open- and closed-shell character of the singlet oxygen reactant. Guided by thermodynamics measures in the experiment, this project benchmarks various single- and multi-reference electronic structure theories for tackling this unique reaction system.

🍷🍷🍷🍷🍷🍷🍷 Happy Kwanzaa! 🍷🍷🍷🍷🍷🍷🍷



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**WESTCHESTER CHEMICAL SOCIETY****SPECIAL SEMINAR*****Recent Advancements on Intelligence Analysis  
Using Chemistry Knowledge to Combat against  
Modern-Day Drug Crime***

Speaker: Kulendran Anushan  
Scientific Officer,  
The National Narcotics  
Laboratory (NNL)  
National Dangerous Drugs  
Control Board (NDDCB),  
State Ministry of Public Security  
and Disaster Management, Sri Lanka



**Abstract:** This talk is an introductory talk about an emerging field of chemistry within the forensic science discipline. Combating against illicit drug trafficking is a collaborative effort of police agencies and judicial professionals to enforce the sanctions, legal punishments, etc., The Laboratory testing on illicit seizures is a well-known practice for analysts and a lab report is commonly used for court purposes as evidence on bar trials against convicted individuals. In this process, only a few percentages (< 5%) of scientific data/information are being communicated with magistrates. Chemists can generate a set of systematic scientific data using analytical techniques by detailed physical and chemical characterization of illicit drug seizures which may be a useful tool to prevent the emerging drug related crimes by providing timely and pertinent information relative to drug crime patterns and trend correlations to assist intelligence agencies to trace a crime scene as well as operational and administrative personnel in planning the deployment of resources for the prevention and suppression of criminal activities and aiding the investigative process. The lecture will also emphasize the importance of structured scientific analytical techniques within the intelligence analysis for effective operations at tactical, strategical and administrative levels to combat against emerging drug related crimes and discuss the recent advancements on Intelligence analysis using chemistry knowledge using few examples.

**Bio:** Kulendran Anushan is an accomplished and driven scientific professional with more than ten years of experience in chemistry as an Honours Bachelors of Science in Chemistry in 2010. He worked as a Demonstrator, Assistant Lecturer and Research Scholar in academia. Eventually, He joined as Scientific Officer at the National Dangerous Drugs Control Board, Sri Lanka, focusing on chemistry and fundamental understandings of key concepts to play a catalytic role to promote science to introduce scientific-evidence based strategies to address the drug problem within Sri Lanka. His knack for disassembling a problem into its component parts, and tackling parts in a rigorous, quantitative manner leads to introduce sustainable scientific & innovative solutions for drug law enforcement agencies to combat against illicit drug trafficking. Anushan is a member of Illicit Drug Workgroup of Asia Forensic Science Network (AFSN) and International Association of Law Enforcement Intelligence Analysts (IALEIA). Anushan holds professional membership with Royal Society of Chemistry and American Association for the Advancement of Science (AAAS).

**Date:** Thursday, December 16, 2021  
**Time:** 7:00 PM via [Zoom](#)  
**Passcode:** 402948  
**Cost:** Complementary

### *In Memoriam : Paul Walker Dillon, Ph.D.*

The Indicator joins the New York Section and the Westchester Chemical Society in celebrating the life of our friend and colleague Dr. Paul Dillon. Paul was a precocious student and graduated from Brooklyn Tech HS at the age of 16, where he earned the President's scholarship to attend the Polytechnic Institute of Brooklyn, now NYU Tandon School of Engineering. Subsequently, he earned a PhD in chemistry from New York University.

Paul spent most of his early career as a research chemist for Union Carbide, where he won worldwide recognition for his work in latex coatings. He later worked in biostatistics for several diagnostics companies, including Bayer and Siemens.

Paul was active the American Chemical Society as Program Director and the Co-Chair of the Westchester Chemical Society and was a invaluable contributor to The Indicator.

Paul's active retirement also included service on the Advisory Board of the Center for Sustainable Energy at Bronx Community College, and the Industrial Advisory Board of the Polytechnic Institute of NYU. He was also a patient advisor for the Interstitial Lung Disease Cooperative.

#### Obituary

In lieu of flowers, the family asks that you consider a donation to the [Interstitial Lung Disease Collaborative](#).





### **WESTCHESTER CHEMICAL SOCIETY DISTINGUISHED SCIENTIST AWARD CALL FOR NOMINATIONS**

The Westchester Chemical Society is accepting nominations for the "WCS Distinguished Scientist Award 2022". Scientists who live or work in Westchester or the Bronx qualify. The awardee is expected to attend the Awards Dinner (April/May time-frame) and to present aspects of his or her work. Self-nominations are acceptable. Nominations are not carried over from previous years. New and possibly updated nominations should be submitted. Please send a cover letter stating why your nominee should receive the award along with the nominee's resume **by January 15, 2022** to


[Dr. Peter Corfield](#).

Project ECHO for Interstitial Lung Disease







ILD patients need access to specialty care for their complex health conditions.



Patients do not have easy access to ILD specialists, especially in non-urban or underserved communities.



ILD ECHO trains primary care physicians and community pulmonologists to provide specialty ILD care services.



ILD patients get proper care, in the right place, at the right time.

## NORTH JERSEY SECTION MEETINGS

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

### 2021 NORTH JERSEY EXECUTIVE COMMITTEE MEETINGS

Section officers, councilors, committee chairs, topical group chairs, and section event organizers meet regularly at the Executive Committee Meetings to discuss topics of importance to running the section and representing the membership. The team is scheduling monthly virtual meetings on Monday evenings at 7 – 9 PM (EST). See the table at right for the final 2021 meeting date.

All members are welcome to attend these meetings and become more involved in section activities. For any additional information, please contact Mirlinda Biba (NJACS 2021 Chair) at [mbiba@njacs.org](mailto:mbiba@njacs.org).

### 2021 ACS North Jersey Local Section Executive Committee Meetings Schedule (all meetings are virtual)

| Month    | Meeting Date<br>Time : 7:00 – 9:00 PM EST |
|----------|---|
| December | Monday, December 13, 2021                 |

### NORTH JERSEY SECTION ELECTION RESULTS

The North Jersey Section 2022 officer election results are provided below.

|                                |   |
|--------------------------------|---|
| Chair-Elect                    | Justyna Sikorska                            |
| Treasurer                      | Miriam Gulotta                              |
| 2022-2024 Councilors           | Monica Sekharan, Diane Krone, Robert Menger |
| 2022 Councilor                 | Michael Peddicord                           |
| 2022-2024 Alternate Councilors | Miriam Gulotta, Yalan Xing, Lynda Box       |

The North Jersey ACS sincerely thanks all the candidates and expresses its gratitude for their time and effort in preparing for the election. Congratulations to all.

### FAIR FOR EMERGING RESEARCHERS (FER) IS STILL ACCEPTING STUDENTS FOR THE 2021-2022 ACADEMIC YEAR

We are a year-long research mentorship and training program for students in 5 thru 8 grade from socioeconomically diverse populations from Maryland, New York and New Jersey that culminates in a multi-state virtual science fair. Our program's main goal is to foster scientific critical thinking and original project ideas through a longitudinal research project. Students benefit from STEM college mentors, online modules with professionally animated videos, and an opportunity to present and win prizes at a multi-state virtual fair! If you may be interested and want to learn more, please email us at [info@scienceFER.org](mailto:info@scienceFER.org).

### Attention middle-school parents and teachers!

Join us for our 6th annual science fair! Participating students will receive mentorship from college students and a chance to win prizes!

**Who:** Middle-school students in 5th thru 8th grade  
**When:** April 2022

✉ [info@scienceFER.org](mailto:info@scienceFER.org)

🌐 [scienceFER.org](http://scienceFER.org)



## ***NJACS' CHEMEXPO SUCCESSFUL IN CELEBRATING NATIONAL CHEMISTRY WEEK***

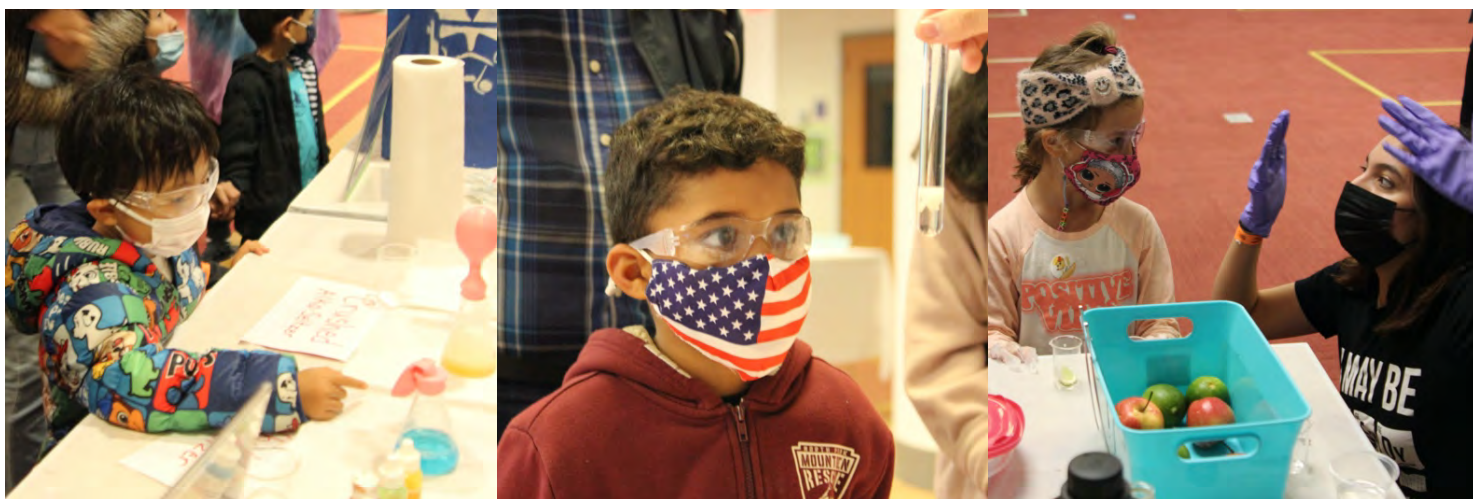
Contributed by Sandra Keyser

In partnership with Liberty Science Center, North Jersey ACS hosted the 27<sup>th</sup> annual ChemExpo on Mole Day, October 23, 2021 in celebration of National Chemistry Week. Over 1400 visitors to the Liberty Science Center in Jersey City, NJ had the opportunity to engage in demonstrations related to the theme of “Fast or Slow, Chemistry Makes It Go” with students from New Jersey City University (NJCU), Essex County College, J.P. Stevens High School and Bergen County Technical High School.



*It was great to see how eager the high school and college students were to show chemistry to kids of all ages!*

*~ Kathleen Gilbert, first-time ChemExpo judge*



Through balloon races at the J.P. Stevens tables (above on left), the children developed hypotheses regarding which would have a faster rate of effervescence: whole Alka Seltzer tablets or the pulverized Alka Seltzer powder. They also made observations about glow sticks' fluorescence as it relates to temperature. Bergen County Technical High school students engaged children with the oxidation of vegetables and how vinegar impacts the browning process (center photo above). NJCU gave the children an opportunity to make playdough and compared the rates of chemical reactions between different fruits, explaining the role of enzymes in the fruits (photo at right above). The children gladly watched hydrogen peroxide, yeast, and dish soap foam out of a flask in the elephant toothpaste demo and observed how to make a chemical lava lamp at the Essex County Community College tables (photos at left on following page). Volunteer Sara Ali provided National Chemistry Week tattoos and stickers to the children (photo at right on the following page).

## ***NJACS' CHEMEXPO SUCCESSFUL IN CELEBRATING NATIONAL CHEMISTRY WEEK*** ***continued***

Judges Mirlinda Biba, Kathleen Gilbert, Debra Hazard-Sweet, Bettyann Howson, and Amjad Ali evaluated the demonstrations and selected the winners in the college and high school competitions, while Miriam Gulotta coordinated the judging during the event. Both J.P. Stevens and Bergen County Technical High Schools jointly secured the first place for the high school demonstration competition, based on the interactivity and engaging nature of the demonstrations. The two colleges competed in the *Sister Marian José Smith Undergraduate Public Outreach Award*, which was awarded to NJCU.

Kathleen Gilbert said "As a first-time judge, I was very impressed with the quality and variety of demonstrations. It was great to see how eager the high school and college students were to show chemistry to kids of all ages! All the teams did incredibly well and the judges were very proud of how they represented the chemistry of reactions to the chemists of tomorrow!"

Financial support from the NJACS and corporate sponsor, BASF, made the event possible. The event was also successful due to the support of the volunteers, NJACS members, chemistry teachers at the participating school, leadership at Liberty Science Center, and the ChemExpo 2021 Steering Committee: Monica Sekharan, Mita Chaki, Miriam Gulotta, and Sandra Keyser.



## ***LOCAL POET WINS NATIONAL ACS ILLUSTRATED POEM CONTEST!***

The North Jersey Section is proud to announce that **Janie Lee** of Biotechnology High School in Freehold won first place in the 9 – 12 grade category of the National Chemistry Week (NCW) Illustrated Poem Contest both for our local section AND the National award! The national award includes a cash prize, a certificate, and a letter of congratulations from National ACS. In addition, Janie's teacher at Biotech, Courtney Amster, received an Amazon gift card to celebrate Janie's win. We hope this win will encourage other students and teachers to participate in our NCW Illustrated Poem contest planned for October 2022!

[See Janie Lee's winning illustrated poem here](#)

## 2021 NJACS AWARD FOR CREATIVITY IN MOLECULAR DESIGN & SYNTHESIS

On Thursday, November 18<sup>th</sup>, the North Jersey ACS Organic Topical Group hosted the 2021 ACS Award for Creativity in Molecular Design and Synthesis via virtual Zoom platform. Stephen L. Buchwald, the Camille Dreyfus Professor of Chemistry at MIT, was recognized for his pioneering work in catalysis, notably the development of palladium catalysts to form carbon-heteroatom and carbon-carbon bonds. The symposium featured seminars from Dr. Jingjun Yin of Merck Research Labs, Professor Tianning Diao of NYU, Professor Marisa Kozlowski of UPenn, 2021 Nobel Laureate and Professor David MacMillan of Princeton University, Dr. Seble Wagaw of AbbVie, as well as a keynote address by Professor Buchwald. There was also a poster session featuring 17 students and postdocs across 10 local schools. The event sold out with 500 attendees. The Organic Topical Group would like to congratulate Professor Buchwald and thank the speakers and attendees for a wonderful day of science.



Above, Dr. Sue Zultanski, Chair of the Organic Topical Group, presents the 2021 ACS Award for Creativity in Molecular Design and Synthesis to Professor Stephen L. Buchwald (and cats).

🧪🧪🧪🧪🧪🧪 Happy Hanukkah! 🧪🧪🧪🧪🧪🧪

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## 2021 NJACS AWARD FOR CREATIVITY IN MOLECULAR DESIGN & SYNTHESIS *continued*



The Organic Topical Group (OTG) committee members and speakers after the award symposium. Pictured from top, left to right: Prof. Stephen L. Buchwald (MIT), Dr. Sue Zultanski (Merck/OTG), Prof. Joe Badillo (Seton Hall/OTG), Prof. Yalan Xing (William Paterson/OTG), Prof. David MacMillan (Princeton), Prof. Marisa Kozlowski (UPenn), Dr. Chunrui Sun (Merck/OTG), Dr. Seble Wagaw (AbbVie), Dr. Jingjun Yin (Merck), Prof. Tianning Diao (NYU), Leslie Trigoura (Cornell/OTG), Dr. Mike Smith (BMS, OTG), Dr. Saurin Raval (BMS, OTG), Mary Chioma Okorie (Seton Hall/OTG) and Usha Kalra (Seton Hall/OTG).

### CALL FOR NOMINATIONS FOR THE 2022 AWARD FOR CREATIVITY IN MOLECULAR DESIGN & SYNTHESIS

The ACS North Jersey Section is soliciting nominations for the *2022 Award for Creativity in Molecular Design & Synthesis*. The award recognizes initiative, creativity, leadership, and perseverance in pure and/or applied chemistry. Nominees must have had broad impact in the areas of chemical synthesis, method development, bioorganic/medicinal chemistry, pharmaceutical sciences, and/or molecular recognition.

Nominations should include a letter describing the nominee's achievements, a brief biography and curriculum vitae, and a list of the nominee's important published works. Supporting letters are strongly encouraged.

Please submit materials by **January 31, 2022** to [XINGY@wpunj.edu](mailto:XINGY@wpunj.edu). The award is presented by the section every two years, and the prize consists of a crystal plaque and a \$5,000 honorarium.

## FOR UNDERGRADUATES - GAIN RESEARCH EXPERIENCE THIS SUMMER

Whether you are considering a career in industry or pursuing advanced degree in chemistry, biochemistry or materials science, an authentic research experience is a great way to:

- Learn new laboratory skills
- Hone your problem-solving abilities
- Apply your chemistry knowledge
- Determine your research interests

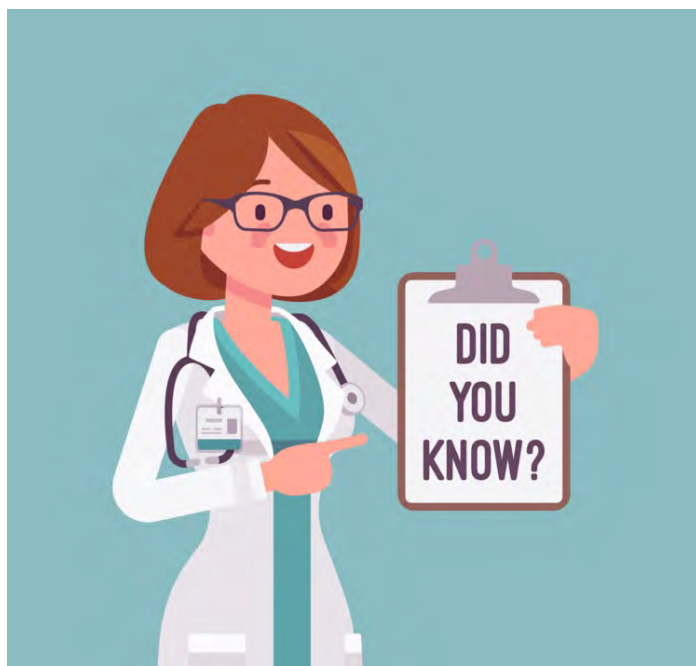
as you network, develop professionally and earn a strong letter of recommendation..

Consider applying for Summer research opportunities at your home institution, at a national lab, or at another University. Extramural programs are usually 8-10 weeks in length, provide a stipend and housing (if needed), and go by names like National Science Foundation-funded Research Experience for Undergraduates ([NSF-REU](#)), the National Institutes of Health-funded Summer Undergraduate Research Fellowship ([NIH-SURF](#)), and the National Institute of Standards and Technology Summer Undergraduate Research Fellowship ([NIST-SURF](#)).

These programs' websites are now being updated for 2022. Application deadlines vary, but most are in February.



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## ACS SCHOLARS PROGRAM CALL FOR APPLICATIONS

ONLINE APPLICATION NOW OPEN!

### ACS Scholars Program

Renewable Scholarship, ACS student membership, Networking, Corporate Sponsorship, Travel Awards, Mentoring.

APPLY ONLINE TODAY  
[WWW.ACS.ORG/SCHOLARS](http://WWW.ACS.ORG/SCHOLARS)

Deadline is March 1st, 2022

The ACS Scholars Program awards renewable scholarships to **undergraduate students from historically underrepresented groups** in the chemical sciences, majoring in chemistry-related disciplines, and intending to pursue chemistry-related careers. Selected recipients are awarded up to \$5,000 per academic year. To date, over 3,500 students have received funding from the ACS Scholars Program.

[Applications being accepted](#)  
**Deadline is March 1, 2022**



## FOR POST-DOCTORAL FELLOWS

The New York Academy of Sciences calls for nominations for the 2022 Blavatnik Regional Awards for Young Scientists. The Blavatnik Regional Awards acknowledge and celebrate the excellence of outstanding postdoctoral scientists from institutions in New York, New Jersey, and Connecticut working in the three disciplinary categories of Life Sciences, Physical Sciences & Engineering, and Chemistry. Winners are awarded \$30,000 with two finalists each receive \$10,000 in unrestricted funds.



[Applications being accepted](#)  
**Deadline is January 26, 2022**



Merry Christmas!



## 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!

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## Call for Nominations

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### ACS Fellows

The [American Chemical Society Fellows Program](#) recognizes ACS members for outstanding achievements in and contributions to science, the profession, and the Society. Both the North Jersey ACS and the New York ACS are seeking candidates to nominate for ACS Fellow honors. Please email the respective Section representative for more info.

[North Jersey ACS](#)  
[New York ACS](#)

**DUE January 1, 2022**



**January issue Submissions are due on December 16<sup>th</sup>.**

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

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**Save the Date – MARM June 1-4, 2022**

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The poster for MARM 2022 is titled 'OUR CHEMICAL Revolution'. It features a central illustration of a diverse group of people in a wooden boat, rowing on a blue sea. One person in the back of the boat holds a white flag with the word 'Element' and a periodic table. The background is dark blue and filled with various chemical structures, including a benzene ring, a DNA helix, a ball-and-stick model, and a complex organic molecule. The text 'MARM 2022:' is in red, 'OUR' is in light blue, 'CHEMICAL' is in large yellow block letters, and 'Revolution' is in white cursive. At the bottom left, it says 'The 50th Middle Atlantic Regional Meeting of the American Chemical Society' and 'SAVE THE DATE: June 1-4, 2022'.

MARM 2022:  
OUR  
**CHEMICAL**  
Revolution

The 50th Middle Atlantic Regional Meeting  
of the American Chemical Society

SAVE THE DATE:  
June 1-4, 2022

## NEWS FROM OUR PARTNERS

### Forensic Genetic Genealogy

The [New Jersey Association of Forensic Science](#) presents a lunchtime discussion with Dr. Colleen Fitzpatrick as she speaks on Practical Aspects of Forensic Genetic Genealogy & What It's Revealing about the Criminal Justice System.

**December 8, 2021**  
12:00 PM – 1:30 PM EST  
[Register here](#)



### 75<sup>th</sup> Anniversary Meeting

The Society of Cosmetic Chemists' Annual Meeting is the premier conference for cosmetic science education with over 1,000 attendees. In this, its 75<sup>th</sup> year, the meeting will feature 35 podium lectures covering the latest research and innovation in: Diversity in Beauty; New Discoveries in CBDs and Microbiome; Skincare at the Forefront; 75 Years of Beauty & Beyond.

**December 13-15, 2021**  
Onsite and online  
[More info online](#)

### Pacifichem 2021: A Creative Vision for the Future

**December 16-21, 2021**

Register now to attend the virtual-only Pacifichem 2021 conference that is focused on chemistry as a creative enterprise.

[More info online](#)



### ACS Committee on Ethics: Call for ChemLuminary Award Nominations

The [ACS Committee on Ethics](#) reminds local sections of the Ethics ChemLuminary Award. All ChemLuminary award nominations are due **February 15<sup>th</sup>** as part of the annual report. The self-nomination must demonstrate the innovative aspects of the ethics-related activity. Information about the ethics event/activity must include the following in the self-nomination process: attendance, impact on the local ACS members, joint planning with other groups (if any) and the overall success of the event. Examples can be found on their [webpage](#).



### ***FINDING A JOB WITH ATS***

Companies are increasingly using applicant tracking systems (ATS) to recruit and hire new employees. An ATS centralizes the various tasks of the recruitment process into one location: effectively distributes the job posting, extracts applications from job boards, social sites, emails, organizes the applicant pool (we'll come back to this!), and automates email contact to all applicants when a job offer is accepted.

To expedite the process of recruitment, an ATS can allow the employer to search resumes by keywords or phrases, to compare the job description with an applicant's resume, and to prioritize and rank applicants based on that match. Your rank may determine whether or not the hiring manager even sees your application!

As you're applying for jobs, keep in mind that the company may be using an ATS to streamline their recruitment process.

1. Customize your resume to better match the job description, incorporating relevant keywords and phrases.
2. Use standard formatting in your resume: avoid tables, images, and graphics, while using typical fonts. Standard headers with experience in chronological order are important.
3. Try out an ATS website for job seekers like [jobscan.co](http://jobscan.co) or [skillsyncer.com](http://skillsyncer.com) that can highlight improvements to your resume.

### ***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](mailto:jobs@NewYorkACS.org) for inclusion.

**Analytical Chemist – Chemetall/BASF**

[Apply here](#)

**Chemist II – Appco Pharma LLC**

[More info](#)

**Senior Research Chemist – Church & Dwight Co., Inc.**

[More info](#)

**Assistant Professor (Biochemistry) – Adelphi University**

[Apply here](#)

**Assistant Professor (Organic/Biochemistry)– Fairleigh Dickinson University**

[Apply here](#)