Sandra Keyser, Ph.D.
2024 North Jersey ACS Chair
See page 5
The contributions of the Muslim world in the 9th and 10th Centuries to the advancement of the sciences are, I believe, greatly underappreciated by most of us. They begin with the establishment of schools of translation from Greek or Syriac manuscripts into Arabic. The caliph Haroun-ar-Rashid – yes he of the Arabian Nights tales – established the House of Wisdom in the late 9th Century in Baghdad and sent out agents to Constantinople to buy manuscripts to be translated. The main translators were Hunayn Ibn Ishaq, a Christian Arab, and his son.

The majority of the translations were of medical works including Hippocrates and Galen. These works included some chemical (alchemical?) remedies, mostly plant-based; the beginnings of a pharmacopeia. Because of differences in the available manuscripts there were multiple versions of the translations. For example, there were 15 Hippocratic works and 90 works by Galen, many of which were almost duplicates. By about 1000 ACE most of the available works of the Greek natural philosophers were available in Arabic. It is noteworthy that in the succeeding centuries these works were translated into Latin by Western scholars who traveled to the Iberian peninsula to learn Arabic in order to make these priceless ancient Greek works available in Latin, the common language of the Christian church in Europe.

Although there are ongoing disputes among scholars as to the impact of the accession to a large body of early scientific thought, it is my opinion that a substantial number of Islamic scholars accepted this new knowledge and decided to build on it – to take it as a starting point from which to move forward with their own studies. Some of the most impressive advances were in areas outside the scope of my columns, notably in optics, astronomy, and mathematics. So I will confine my discussion to alchemy, a (pseudo?) science that flourished in Islam, building on the foundations of Alexandrine alchemy. By the period I am discussing it had become clear that there were two alchemies: practical, and theoretical. Theoretical alchemy derives from the Aristotelian view that there was one primal material, expressed terrestrially as four elements: earth, air, fire, and water. Since all were made from the same primal matter, transmutation was possible. Transmutation was the domain of practical alchemy. The Islamic alchemist Jabir (9th. To 10th. Century) added a new twist. Believing that metals grew in the ground, just like plants, he added salt and mercury from which metals were formed, to the four elements of Aristotle. The “salt” and “mercury” of Jabir are not the common substances we know by those names; they are principles or essences of saltiness and mercury-ness.

There were many important Islamic alchemists who added to both the theory and practice of the field. Among the most significant are Razi and Avicenna, the latter being an important physician as well, whose Canon of Medicine became a standard text in European medical schools for centuries. This all goes to show that Islamic scientists continued the work of the Greeks that preceded them and set the stage for the steady progress of the European science of the Middle Ages.
THE MONTHLY NEWSLETTER OF THE NEW YORK & NORTH JERSEY LOCAL SECTIONS OF THE AMERICAN CHEMICAL SOCIETY.

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December Calendar

NORTH JERSEY SECTION

Friday, December 15, 2023
US National Chemistry Olympiad Registration Deadline
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Saturday, December 16, 2023
Executive Committee Planning Meeting

NEW YORK SECTION

Wednesday, December 6, 2023
Science Café
See page 12

Thursday, December 7, 2023
Long Island Subsection
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Friday, December 15, 2023
US National Chemistry Olympiad Registration Deadline
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SAVE THE DATE

Saturday, January 20, 2024
NYACS Sectionwide Conference
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NORTH JERSEY CHAIR’S MESSAGE

I am honored to be the Chair of the North Jersey Local Section! Our section is rich with opportunities to become an active member: our vibrant topical groups, including Mass Spectrometry, NMR, Drug Metabolism, Teacher Affiliates, and Organic topical groups; committees, such as our Women Chemists, Younger Chemists, and Communications Committees; and outreach opportunities between Chemists Celebrate Earth Week, National Chemistry Week, Chemistry Olympiad, NJ Chemistry Olympics (NJCO), and Edison Day. The symposia, activities, lectures, poster sessions, outreach events, and meetings are all opportunities to network, learn, and engage with our scientific and non-scientific community. The success of our local section can be attributed to Justyna Sikorska, NJACS 2023 Chair and fearless leader, as well as our Executive Board! Thank you all for your hard work, your dedication, and amazing efforts!

Evidence of our success was supported by our several ChemLuminary nominations in 2023. NJACS was a finalist for 6 separate categories, including Best Activity or Program Stimulating Member Involvement, Outstanding AACT Support Award, Outstanding Engagement with K-8 Students, Outstanding Ongoing NCW event, Outstanding Project SEED Program Award, and Outstanding Performance by a Local Section. We were awarded the Outstanding AACT Support Award, and I'm looking forward to making our case for winning additional awards in the upcoming year!

As chair, I will continue to support and promote our topical groups and committees, as well as run the Baekeland Symposium in April 2024. I would also like to focus on the following goals in the upcoming year:

- Promote membership and engagement in NJACS – with a new and elegant NJACS website that has been facilitated by Justyna and the Website Committee as well as Kathleen Gilbert’s excellent monthly newsletter, we have a platform for better communication with our membership. I look forward to supporting science cafes and new events to engross and deeply engage the ACS members who might not be involved at the local level.
- Enhance the leadership pool across NJACS – the NJACS Executive Board meetings are open to the public, and we've brought in a significant number of fresh faces to our meetings in 2023. I'd like to continue to facilitate that new involvement, while also creating additional opportunities within the Executive Board for interested members. This can help develop a pipeline of leadership that will enrich our organization.
- Collaborate and partner with other local sections – 7 different local sections divide up the state of New Jersey, and the opportunities to work with these other local sections are enhanced by our proximity. We should capitalize that geographic accessibility!

Submit your articles for the January 2024 issue by December 16th
http://www.theindicator.org/
A decade ago, I was a non-tenure-track professor and volunteered for our section’s National Chemistry Week Event, ChemExpo. During the event, Marilyn “Bobbi” Gorman asked if I’d be interested in being more involved at the local section level – that question was a turning point and has since led to an abundance of committee work, judging students and events, and serving as an NJACS Councilor (thanks, Bobbi!). In 2020, I changed careers to become a safety professional in academia then industry. I have recently joined EHS at Merck, and the success of my career transition is due in no small part to this local section. The networking and leadership opportunities as well as the support and encouragement of my fellow NJACS Executive Board members catalyzed these momentous changes in my life. NJACS has changed my life for the better, and I’m grateful for the opportunity to work with and lead such an amazing community.

Looking back on this decade, I want to emphasize the myriad opportunities to volunteer and lead within NJACS. Our volunteers bring passion, depth of knowledge, and diverse perspectives our symposia, outreach activities, meetings, colloquia, and our executive board meetings. The richness of our local section is truly inspiring – if you aren’t already, I urge you to become an active member within our local section and you’ll find that there is much to engage and stimulate you as a volunteer! Please visit our website (www.njacs.org) or contact me at skeyser@njacs.org to find out more!

I wish you all a joyful and fulfilling 2024!

Sandra Keyser, Ph.D.
2024 Chair, North Jersey Local Section of ACS

NORTH JERSEY SECTION ACS ELECTION RESULTS

The North Jersey Section is pleased to announce the 2024 election results!

Chair-Elect: Robert Menger
Secretary: Elizabeth (Bettyann) Howson
2024-2026 Councilors: Alan Cooper, Sandra Keyser, Amanda Peterson Mann
2024-2026 Alternate Councilors: Cecilia Marzabadi, Justyna Sikorska, Jasmine Lu

Congratulations to our newly elected leaders for 2024!

Interested in running for a 2025 North Jersey ACS section leadership position?

✓ Attend the Executive Board meetings each month - they’re open to all Section members! Contact our Communications Chair for details!
✓ Read the Indicator and check out our website to stay current with our events
✓ Volunteer for events and activities by contacting an Executive Board member or filling out this interest form
2023 BAEKELAND AWARD ANNOUNCED

The North Jersey section of the ACS and the Baekeland Award Jury are pleased to announce that the 2023 Leo Hendrik Baekeland Award winner is Prof. Keary Engle of The Scripps Research Institute. Prof. Engle is being honored for his work in the catalyzed functionalization of alkenes and alkynes. The Baekeland Award will be presented at the Distinguished Symposium in his honor, Prof. Engle earned his B.S. in Chemistry, Economics, Mathematics, and Statistics from the University of Michigan in 2007, and his Ph.D. in chemistry from The Scripps Research Institute along with a D.Phil. in biochemistry from the University of Oxford in 2013. After working as an NIH postdoctoral research fellow at California Institute of Technology, Prof. Engle returned to Scripps as an Assistant Professor in 2015. He was promoted to full professor in 2020.

Prof. Engle has advanced the field of C–H activation using mono-N-protected amino acids with palladium(II), developing stable fluoride reagents that are modulated using hydrogen-bond donors, and rationalizing the reactivity of ruthenium catalysts for olefin metathesis based on the Ru–O bond strength. His independent research work that has focused on the introduction of functional groups to any alkene reagent with complete chemo-, regio-, stereo-, and enantioselectivity is impressive and exemplifies the Leo Hendrik Baekeland Award for advancements of the chemistry field.

His collective work has been published in over 100 papers and cited over 19,000 times. Keary has received numerous awards and fellowships including a National Academy of Sciences Kavli Frontiers in Science Fellow, NSF CAREER Award, and an Alfred P. Sloan Research Fellowship.

Further details about the Baekeland Symposium in 2024 will be featured in upcoming editions of the Indicator and on the NJACS website.
Dear North Jersey Colleagues,

On behalf of the North Jersey Section of the American Chemical Society, I invite your school to participate in the 2024 U.S. National Chemistry Olympiad (USNCO). This program is a multi-tiered competition at the local, national, and international levels that promotes excellence in high school chemistry. In the past 19 years, nine students from NJ ACS have been selected to represent the United States at the International Chemistry Olympiad (IChO). In 2022, we had two students reaching the top 50 nationally, and five others finishing in the top 150. The next IChO will be held in Riyadh, Saudi Arabia from July 21 to July 31, 2024.

Interested students are invited to take the Local Qualifying Exam at participating schools, and teachers may schedule a single testing date at their convenience between March 1 and March 15, 2023. Due to the security breach of the local exam this year (2023), there will be significant changes to the administration of the Local Exam in 2024.

1. All tests will be on paper. The on-line test option will no longer be available.
2. Every student must register at the USNCO website by December 15, 2023. They will be asked to fill in their school's name. Please ask them to use exactly the same spelling for your school (e.g. High School vs HS). Different spellings of the same school create logistical challenges for us.
3. Please register your school with North Jersey ACS by Dec 8, 2023 at 2024 USNCO participation form

More information about the competition is on the USNCO exam preparation page. There is also a promotional video by an IChO gold medalist.

There is no cost to the schools for participating in the competition. All students at an individual school should take the test at the same time. Top scoring students will be invited to take the National Exam in April 2024.

Thank you for promoting the study of chemistry in New Jersey.

Sincerely,
Bettyann Howson
Chemistry Olympiad Coordinator, NJACS
Hi Chemistry Teachers,

It is my pleasure to invite you to register students to participate in the 2024 U.S. National Chemistry Olympiad (USNCO). The Olympiad is a multi-tiered event. The first tier, the Local Exam, is open to all high school students. Participation in the second and third tiers, the National Exam and the Study Camp, is based on student performance at the previous level. Finally, a team will be chosen to participate in the International Chemistry Olympiad. Below you will find information about the fee waiver we are offering to encourage broad participation in the Olympiad as well as detailed information as to how to register students to participate. The relevant materials needed to register students are attached to this message. Additionally, the information provided below and access to all the necessary forms can be found at our website. I encourage you to register students and provide them with the opportunity to participate in this exciting event.

Sincerely,
Stephen Z. Goldberg
Chair, NYACS Olympiad Committee
goldberg@adelphi.edu or olympiad@newyorkacs.org

FEE WAIVERS AVAILABLE FOR 2024
Schools that have never participated in the Olympiad or have not participated more recently than 2018 may apply for a waiver of the registration fee. Applications will be reviewed in the order received.

REGISTRATION INSTRUCTIONS FOR THE 2024 CHEMISTRY OLYMPIAD

The local exam of the 2024 Chemistry Olympiad will be offered at 10:00 a.m. on Saturday, March 9 and Sunday, March 10. The exam is a 60 question multiple choice exam lasting 110 minutes. The exam will be offered in an online format and students planning to take the exam should have access to two internet accessible devices during the exam period.

As was the case in previous years, students will need to register with both the New York Section and at the ACS Learning Center in order to access the online exam. The national office of the ACS has implemented a new deadline for registering with the Learning Center. The deadline for registering at the Learning Center is December 15. Students can register at the Learning Center here.

We recognize that this may present some difficulties and have tried to have the deadline changed. Unfortunately, we have been informed by the national office that the December 14 deadline should be considered a firm deadline.

If you have any questions or need assistance please contact Stephen Z. Goldberg, Chair, NY-ACS Olympiad Committee, at olympiad@newyorkacs.org.
http://www.newyorkacs.online

NEW YORK SECTION MEETINGS

BOARD MEETING DATES FOR 2024

The New York ACS Board Meeting dates are given below. The meetings will be held at the US Merchant Marine Academy Library Crabtree Conference Room and are open to all. However, 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. Prof. Ping Furlan will Chair all meetings. The meetings will start at precisely 6:30 PM.

The board meeting dates are, as follows:

- **Saturday, January 20, 2024** (in person)
  Sectionwide Conference
- **Monday, February 12, 2024** (virtual)
- **Monday, March 11, 2024** (hybrid)
- **Friday, April 12, 2024** (in person)
  William H. Nichols Symposium and Medal Award Dinner at the Sonesta Hotel, White Plains, NY.
- **Monday, June 10, 2024** (hybrid)
- **Monday, September 16, 2024** (hybrid)
- **Monday, November 25, 2024** (hybrid)

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

2024 SECTIONWIDE CONFERENCE

KEYNOTE SPEAKER

DR. RAYCHELLE BURKS

After working in a crime lab, Dr. Burks returned to academia, teaching, and forensic science research. Her research team is focused on the development of field portable colorimetric and luminescent sensor arrays for the detection of analytes of mainly forensic interest such as explosives, chemical weapons, controlled substances, and latent prints. She writes a science-meets-true crime column called “Trace Analysis” for *Chemistry World*. Beyond forensics, Dr. Burks collaborates with colleagues in a variety of fields where low cost and reliable rapid screening methods are needed. An in-demand science communicator, Dr. Burks regularly appears on TV, in podcasts, at large genre cons such as DragonCon and GeekGirlCon, and other venues to converse on chemistry, forensic science, and STEM meets pop culture. She is the 2020 recipient of American Chemical Society’s Grady-Stack Award for Interpreting Chemistry for the Public. She is a member of several local, national, and international committees, task forces, and projects focused on social justice and STEM. In 2021, Dr. Burks was listed as one of the “6 women who are changing chemistry as we know it” by BBC Science Focus Magazine.
2024 SECTION-WIDE CONFERENCE
SATURDAY, JANUARY 20, 2024, 10:00am – 1:00pm
Ballroom DAC-416A at St. John’s University, Jamaica, NY

Registration is free for this In-Person Event! Click here to register

PROGRAM

09:30 AM  Continental breakfast will be available
10:00 AM  ACS, NEW YORK SECTION COMMITTEE PLANNING SESSIONS FOR 2024.

Educational Activities: Chair: Dr. Alison G. Hyslop
Chemagination, Chemists Celebrate Earth Day, Continuing Education, High School Chemistry Olympiad, National Chemistry Week, Nichols Foundation High School Teacher Award, Project SEED, Student Membership, Student Award Recognition

Member Affairs: Chair: Dr. Joseph M. Serafin
ACS Fellows, Awards, Employment and Professional Relations, History of the New York Section, Indictor, Membership, Outstanding Service Award, Minority Affairs

Program Review: Chair: Dr. Anne T. O’Brien; Dr. Rolande Hodel, Westchester Subsection Chair, presiding
Subsection and Topical Discussion Group Chairs

Public Affairs: Chair: Dr. Robert P. Nolan
Academc and Industrial Relations, Environmental Chemistry, Fund Raising, Government Affairs, Information Technology, Public Relations, Speakers Bureau

10:40 AM  REPORTS FROM THE CHAIRS OF THE COMMITTEE PLANNING SESSIONS

10:50 AM  GREETINGS FROM THE ACS NEW YORK SECTION 2024 CHAIR  Dr. Ping Furlan
Dr. Ping Furlan
US Merchant Marine Academy

11:00 AM  AWARD PRESENTATIONS

Service Plaque and Pin to the 2023 ACS New York Section Chair  Dr. Mary Virginia Orna
Dr. Mary Virginia Orna
ChemSource, Inc.

ACS New York Section Outstanding Service Award  Dr. Joseph Serafin
Dr. Joseph Serafin
St. John’s University

Outstanding Four-Year University with Graduate School Chemistry Faculty Teaching Award  To be announced

Outstanding Four-Year Undergraduate College and University Chemistry Faculty Teaching Award  To be announced

Outstanding Two-Year College Chemistry Teaching Award  To be announced

Nichols Foundation High School Chemistry Teacher Award  Xue Qing Liang
Xue Qing Liang
New Utrecht High School

11:35 AM  PRESENTATION OF CANDIDATES FOR THE 2024 ELECTIONS  Dr. Eric Chang
Dr. Eric Chang
Pace University
2024 Chair Elect ACS NY Section

11:45 AM  Break There will be poster presentations by New York Section Project SEED Students

12:00 AM  KEYNOTE SPEAKER:  Dr. Raychelle Burks
Title:
Abstract:

American University

1:00 PM  CONCLUSION OF THE MEETING: Join with colleagues for lunch at a local restaurant.
**SCIENCE CAFÉ**

**Opportunities and Challenges with AI**

**Speaker:** Wendy Cornell, Ph.D.  
Manager and Strategy Lead  
IBM Research Accelerated Discovery

**Date:** Wednesday, December 6, 2023  
**Place:** Gianfranco Pizzeria and Restaurant  
88 Virginia Road  
North White Plains, NY 10603  
914-682-5655

**Time:**  
5:30 PM Social and Snacks  
6:00 PM Talk and Discussion  
7:30 PM Option to Order Dinner

**RSVP:** By December 4th via Email

**Biography:** Wendy Cornell is a manager and strategy lead in the IBM Research Accelerated Discovery pillar where her team is developing AI foundation models to support molecular- and target-based drug discovery. Prior to joining IBM, Wendy led teams at Merck and Novartis in developing and applying natural language processing, machine learning, and physics-based models to support key discovery decision stagegates. Wendy received her PhD from the University of California at San Francisco (UCSF). An ACS Fellow, she is a past Program Chair and Chair of the ACS Computers in Chemistry (COMP) technical division.

**LONG ISLAND SUBSECTION**

**Holiday Party & Seminar**

**Speaker:** Dr. Paris Svoronos  
Professor Emeritus  
Queensborough Community College

**Date:** Thursday, December 7, 2023  
**Place:** Nassau Community College  
CCB Building Room 252  
One Education Drive  
Garden City, NY 11530

**Time:**  
6:00 PM

**RSVP here by December 4th**

**Abstract:** The history of alcohol- its production, consumption and impact on the human civilization through the centuries will be discussed. The historic period will cover the various antiquity civilizations and will continue until modern times. Its isolation via fermentation as well as industrial applications will be presented. Finally, a short description of the metabolic pathway and side effects will be highlighted.

**Details:** This is a free event. Dinner will be served at 6:00 p.m. The seminar will start at 6:45 p.m. Registration is required and is limited to 100 people. Campus safety will not ticket cars in student lots from 5:00 p.m. until the conclusion of the event. Questions can be emailed to Terrence Black.
In partnership with Liberty Science Center, the North Jersey chapter of ACS hosted the 29th annual ChemExpo on October 21, 2023 in celebration of National Chemistry Week. Over 2500 visitors came to the Liberty Science Center in Jersey City, NJ to engage in demonstrations centered on this year’s theme of “the Healing Power of Chemistry” with student volunteers from colleges and high schools from all across New Jersey. Over 90 student volunteers represented their schools: Caldwell College, Drew University, New Jersey City University (NJCU), Ramapo College, Seton Hall University, and St. Peter’s University, as well as Immaculata High School, JP Stevens High School, and Princeton International School of Mathematics and Sciences (PRISMS).

Caldwell College (right) provided a hands-on “poly-glue” demonstration to teach kids about polymers. They compared rigid polymers, as would be used in an arm cast, with, soft, slime-like polymers, by using different combinations of Elmer’s glue, Borax and laundry detergent. Children of all ages learned how detergents can be used to cross-link long molecular chains to tailor polymer stiffness, and as an added bonus, created and personalized their own colorful polymers and took them home in a Ziploc bag.

Drew University (left) put on a comprehensive demonstration about vaccines, teaching kids about how our bodies use Y-shaped proteins called antibodies carrying virus-recognizing fragments that target antigens on the virus cell’s surface. Kids added food coloring drops to water bottles to compare how our body’s response to infection differs with and without vaccination.

Contributed by Lucas Koziol
NJCU came out in full force with three full tables of demonstrations. They heroically tackled the notoriously-difficult concept of chirality, providing chemical ball-and-stick models of ibuprofen and thalidomide as examples. They also tried to overlay their right and left hands to explain R- and S- stereochemistry to kids and adults alike. In a more sensory exhibit, they showed that different skin creams, containing as active molecule either capsaicin or menthol, can produce distinct heating and cooling sensations on our skin.

Students at Ramapo College had one table dedicated to “digestion” and a second table dedicated to “indigestion.” The digestion team exhibited a row of bottles containing different common foods that had been dissolved for several days in vinegar (mimicking the acidic environment of our stomachs). These “digested” foods (including milk, strawberries, and gummy bears) were closely scrutinized by kids to analyze the different nutritional contents floating around in the bottles. Fascinating and slightly icky. Not to be outdone, the indigestion team taught children the chemical reaction behind burping.

Seton Hall University provided a series of exhibits visually showing how antacids function when mixed with different foods all containing different pH. Children could see the more vigorous bubbling action of the antacid as the food increased in acidity. They also gave a visual demonstration of the effects of sunscreen under UV light.
NORTH JERSEY HOSTS SUCCESSFUL CHEMEXPO IN CELEBRATION OF NATIONAL CHEMISTRY WEEK 2023 (continued)

St. Peter’s University demonstrated the decomposition of hydrogen peroxide into hydrogen and oxygen using an enzyme catalyst, showing the liberated oxygen gas bubbling through colored liquid and explaining its health benefits (such as its oxidating effect against microbes). Children were also able to create their own brightly-colored take-home bath-bombs. The author is pleased to report that his own children gave their bath bombs an A+.

Not to be outdone, three high schools also presented at this year’s ChemExpo, and their chemistry knowledge was top-notch. Immaculata High School students were kept busy with their very popular exhibit on hand sanitizers. Children first learned about the chemistry of each of the components in hand sanitizer. Then, they added each component themselves to make their own bottle of hand sanitizer from scratch. JP Stevens High School came with a large turnout. One experiment was directed to the benefits of tooth brushing. Children were handed toothbrushes pre-loaded with toothpaste, and diligently scraped hard-boiled eggs to explore the whitening action of a key toothpaste ingredient, sodium bicarbonate. The egg-shells, which had been stained with an acid, grew whiter upon scrubbing, demonstrating this cleansing acid-base reaction that happens each time we brush our teeth.
NORTH JERSEY HOSTS SUCCESSFUL CHEMEXPO IN CELEBRATION OF NATIONAL CHEMISTRY WEEK 2023 (continued)

The author can only hope his kids were paying attention. Another JP Stevens exhibit was dedicated to understanding the different parts of the electromagnetic spectrum of sunlight, and the role of titanium dioxide as a sunscreen ingredient in absorbing harmful UV components. Volunteers dabbed sunscreen onto silica plates, placed them inside a dark box, and then shined UV light onto them to visually demonstrate the absorption effect of sunscreen. PRISM, coming all the way from Princeton, NJ, also had a strong showing with multiple exhibits to share. In one, they discussed the chemical structure of the chemotherapy drug cis-platin. Using 3D drawings and ball-and-stick-models, they showed how one isomer of the drug is able to fit snugly into the DNA double-helix to prevent tumor cells from replicating, while the other isomer would not have the right 3D geometry. Children were intrigued by this understandable, real-world example of cis- and trans- isomerism. In another exhibit, PRISMS students compared a few different types of face masks commonly used to protect against Covid. They also dissected the ubiquitous surgical mask that we are all familiar with into its three layers. They reported their results from a literature search into each layer and made their own hypotheses about the functions. The author learned that the innermost layer is used mostly to adsorb the moisture from exhaling. It was a great example of the deeper chemistry behind a common everyday object.

Judges Keisha Stephen, Debra Sweet, Susanne Lepore, Mirlinda Biba, Derrick Swinton, and Lucas Koziol evaluated all of the demonstrations and selected the winners in the college competition, while all three teams in the high school category received equal prizes for their excellent work. The first-place prize for the college category went to Ramapo College for their presentation on digestion and indigestion. The runner-up prize went to NJCU for their presentations on chirality, the chemical action of painkillers vs. vaccines, and the heating and cooling effects of cremes on the skin. The third-place prize went to Drew University, for their presentation on the mechanism of action of vaccines in the human body. The prizes were awarded based on the depth of chemical knowledge demonstrated, ability to explain the science in an engaging manner to a broad audience, and overall creativity of the presentations. Congratulations and a big thank-you to all the teams who participated this year!

Financial support from NJACS made this event possible. The event was also made possible by the support and enthusiasm of all the student volunteers, their chemistry teachers and professors, the Liberty Science Center, and the ChemExpo 2023 Steering Committee: Sandra Keyser, Kathleen Gilbert, Marilyn Gorman, and Miriam Gulotta.

NJACS looks forward to another exciting event next year!
Congratulations to the winners of the NCW Illustrated Poem contest. Thank you to all the student participants, the judges and the teachers for their encouragement.

**Middle School:**

1st Place  
**Black Death**  
Aadya Kumar  
Gr. 6  
Kent Place School  
Summit, NJ

2nd Place  
**Zoopharmacognesy**  
Cate Collins  
Gr. 8  
Gr. 8  
Summit, NJ

---

No doctor in the wild  
He's not cared for like a child  
A forest elephant eats clay  
which absorbs bacteria and makes toxins float away.

---

From pills and prescriptions to  
yapses and arteries,  
Chemistry can fulfill our  
finest dreams.  
Defying diseases, it definitely succeeds,  
In chemistry’s arms, new hope it brings.
3rd Place (tie)

**Two Haikus**

Venus Singana  
Gr. 7  
Lake Riviera Middle School  
Brick, NJ

Ananya Mittal  
Gr. 7  
Kent Place School  
Summit, NJ

---

**Power of Mercury**

*Images of winning illustrations*
High School:

1st Place
Science and Fairytales
Leyla Tiryaki
Gr. 12
Thomas Edison Energysmart Charter School
Somerset, NJ

2nd Place
In Cells So Small
Nada Nassar
Gr. 10
Fair Lawn High School
Fair Lawn, NJ

3rd Place
Antibiotics
Maleeha Noor Chaudhry
Gr. 10
Noor-Ul-Iman School
Monmouth Junction, NJ
2023 NATIONAL CHEMISTRY WEEK ILLUSTRATED POEM CONTEST
NEW YORK LOCAL SECTION WINNERS

CONGRATULATIONS!

The New York Local Section congratulates the 82 middle and high school students that participated in this year’s Illustrated Poem contest for National Chemistry Week. The first-place winners are shown below. Jolene Cao’s illustrated poem won 2nd place in the national contest!

Middle School
1st Place
Skin Anatomy
Olivia Logozza
Gr. 8
St. Luke School
Whitestone, NY

High School
1st Place (local) & 2nd Place (Nationally)
Antibiotics
Jolene Cao
Gr. 11
Smithtown East
St. James, NY

Nanoparticles, delivering drug encapsulation,
Journeys to acidic destination,
Controlled degradation of polymer shell,
Unleashes cargo for the cell.

Chiral anticancer soldiers,
Perfectly shaped healers.

Fluorophores conjugated with antibodies,
Illuminating a brilliant realm of therapeutic molecules.
2023 NATIONAL CHEMISTRY WEEK ILLUSTRATED POEM CONTEST
NEW YORK LOCAL SECTION WINNERS (continued)

Middle School
2nd – 4th Place

Martina Rivera
St. Luke School
Whitestone, NY

Madelyn Fernadez
St. Luke School
Whitestone, NY

James Ben-Jacob
St. Luke School
Whitestone, NY

Do you know how your body protects us
from all the diseases
The immune system develops cells to prevent
these reasons
Sometimes we may get diseases from the
Seasons
When sick the immune system sends
messages for your Sneezes.

When you start to feel the sick
And think that you are getting sick,
I know something that can do the trick.

Take your medicine every day
To keep the viruses far away.
Soon you will be well enough to play.
2023 NATIONAL CHEMISTRY WEEK ILLUSTRATED POEM CONTEST
NEW YORK LOCAL SECTION WINNERS (continued)

High School
2nd – 5th Place

Dylan Shen
Smithtown East
St. James, NY

Sophia Gavaris
Smithtown East
St. James, NY

Sanjivani Singh
Smithtown East
St. James, NY

Renee Aquino
General Douglas MacArthur High School
Levittown, NY

Artificial skin, a beacon of hope.
In healing journeys, helping one cope.

Polymers made, patterns spun,
New skin formed, healing has begun.

The realm of skin, where scars do mar,
Chemistry weaves its magic, like a healing star.
CALL FOR NOMINATIONS

WESTCHESTER CHEMICAL SOCIETY
DISTINGUISHED SCIENTIST AWARD
2024 – CALL FOR NOMINATIONS

The Westchester Chemical Society is now accepting nominations for the “WCS Distinguished Scientist Award 2024”. 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, 2024 to Dr. Peter Corfield at pwrc@earthlink.net.

GLOBAL INNOVATION IMPERATIVES
(GII) GRANT

Up to $25,000 to provide funding for a multi-day forum/conference that contributes to the resolution of global sustainability issues.

DUE DECEMBER 22, 2023

Learn more

LOCAL SECTION INNOVATIVE
PROJECT GRANT

$3,500 for a Local Section to conceive and implement innovative projects as well as maintain growth.

DUE JANUARY 15, 2024

Learn more

CORPORATION ASSOCIATES SEED GRANT

Supporting chemical sciences education, public education, and enhanced professionalism in chemistry. Grants up to $5,000 are awarded.

DUE FEBRUARY 1, 2024

Learn more
OPPORTUNITIES

For High School Students & Teachers

Presidential Awards for Excellence in Mathematics and Science Teaching (K-6 Teachers)
Nominations due January 8, 2024

For Undergraduates

How To Land Your First Job: An Email Guide
Available now

For Graduate Students / Postdocs

Japan Society for the Promotion of Science Summer Program
Apply by January 4, 2024

Merck Research Award for Underrepresented Chemists of Color
Due January 15, 2024

Burroughs Wellcome Fund Postdoctoral Diversity Enrichment Program
Due January 18, 2024

For Professionals

EPA Green Challenge Awards
Due December 8

2YC Community of Practice for 2-Yr College Faculty
Due December 15

Camille Dreyfus Teacher-Scholar Awards
Due February 1, 2024

SEMINAR SPEAKERS WANTED

The New York Section wants 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!
FROM OUR PARTNERS

Chemistry Teachers and Physics Clubs of New York

The School of Science at Manhattan College and the Chemistry Teachers and Physics Clubs of NY are proud to present a lecture entitled, as follows: Bionanotechnological and Biocomputational Approaches to Developing Tailored Peptide-Based Materials.

Speaker: Prof. Ipsita Banerjee  
Department of Chemistry  
Fordham University  
Date: Friday, December 8, 2023  
Place: via Zoom  
Time: 8:00 PM  

Email for Zoom login

Royal Society of Chemistry

Join our colleagues in the Royal Society of Chemistry on December 5th at 2:00 PM ET for a conversation with Bonnie Garmus about her debut novel, the NY Times best-seller Lessons in Chemistry which is now a movie on Apple TV+. Explore the character of Elizabeth Zott’s trials and tribulations as a female chemist in the 1960s that is unceremoniously sidelined by male colleagues.

Register here
Starting your career or looking for the next challenge? Review these and other postings at the New York ACS Job Board. Email your job postings to Jobs@NewYorkACS.org for inclusion.

Assistant Professor of Biochemistry – Iona College
Adjunct Professor, Instrumental Analysis – Iona College
Lecturer, Chemistry – Barnard College
Pre-Health Programs Advisor - SUNY Old Westbury
Postdoctoral Researcher/Scientist, Protein / Biomaterials Engineer – ProViZiGen
Program Manager, Awards – New York Academy of Sciences
Division of Research Capacity Building Director – National Institutes of Health
QC Chemist III – Amneal
PET Radiochemist – PharmaLogic
Synthetic Chemist, Director – Osmo
Senior Scientist – Merck
Senior Chemist II, Fast innovation Makeup Development – L’Oréal