

**Hosted by the
Maryland Section of the ACS**
May 30th – June 1st, 2019
UMBC, Baltimore, Maryland

www.MARM2019.org



M A R M • 2 0 1 9

**Both New York and
North Jersey Sections
Receive ACS Innovative
Project Grants**

See citations on pages 5 and 6.

THIS MONTH IN CHEMICAL HISTORY

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

I have just finished reading an impressive re-telling of a piece of (nuclear) chemical history, with strong technological underpinnings, that is also a real-life horror story. Alan Higginbotham's "Midnight in Chernobyl" subtitled "The Untold Story of the World's Greatest Nuclear Disaster" (Simon and Schuster, 2019) is both a detailed piece of historical writing, and a riveting read. Its 380 pages and 30 pages of notes and bibliography carry the stamp of authenticity, and explain in detail both the immediate and long-term reasons for the devastating accident at Reactor Number 4 of the Chernobyl Atomic Energy Station on April 26, 1986, that have cast a long shadow on the future of the nuclear power industry. Higginbotham carried out, over a ten-year period, hundreds of hours of interviews of survivors of the disaster, including workers in the plant and residents in the nearby community of Pripyat. (Although the station was called Chernobyl the town of that name was some ten kilometers away).

The immediate cause of the disaster that destroyed reactor 4 was, ironically, a kind of safety test: a planned simulation of what might happen if all electrical power from the Soviet grid were to be cut off from the plant. The engineers knew that power loss to the pumps that provided the water cooling the reactor would be disastrous, but of course there were emergency diesel generators to provide backup electricity for the pumps. It would take at least 40 seconds, and perhaps as long as three minutes, to get the auxiliary generators up to full power. This gap might be long enough to start a core meltdown, but the plan relied on the momentum of the generator's turbines to keep driving the pumps until the auxiliary generators kicked in. This reliance was misjudged.

As the test progressed the operators made a fatal mistake. In transferring the unit to a kind of autopilot they failed to properly set the reactor power level and the particular design of the Chernobyl reactors was such that at low power levels, somewhat surprisingly, they became increasingly unstable. The die had been cast. Xenon 135 began building up in the core, scavenging neutrons. At this point the only safe measure was to shut down the reactor completely, but this was not done. Confusion ensued. Contradictory orders were given. To restore the power level most of the boron carbide control rods were withdrawn. And then all hell broke loose. A pulse of thermal power of over 12 billion watts was followed by a catastrophic rise in steam pressure. The core temperature exceeded 4650 degrees centigrade and suddenly a violent explosion estimated to be of the order of 60 tons of TNT tore the reactor apart. Radioisotopes including iodine-131, cesium-137, strontium-90, and plutonium-239, were thrown high into the atmosphere, and some 25 tons of uranium and graphite were scattered around the site. The remaining incandescent 1300 tons of graphite in the core began burning fiercely.

Some plant operators were killed at once. Others, plus local firefighters and police, were exposed to damaging levels of radioactivity as they tried to fight the myriad of fires that had been ignited by debris from the explosion. But it proved impossible to decontaminate the area and eventually a 30- kilometer exclusion zone was established and everyone within it was evacuated. An enormous concrete shroud was built to cover the remains of Reactor 4 and recently, since that original shroud was showing signs of major deterioration, a second covering has been built and put in place.

From Higginbotham's account, based on Soviet-era and later documents, it seems as if the basic design of the reactors built at Chernobyl and many other places in the former Soviet Union was faulty. They were developed in haste to provide a rapid supply of electricity and were based on a hybrid military design that produced both power and fissile material for nuclear weapons. They became, as the disaster showed all too graphically, inherently unstable at low power levels. Three-mile Island (before Chernobyl), Chernobyl, and in recent times Fukushima have given many, perhaps most, of us considerable unease when we think of using nuclear power as a significant source of energy in the future. My personal view is that nuclear power is an essential part of our energy future on two conditions. First, and easiest, is to design inherently safer reactors. This has already been accomplished. Second, and more vexatious, is safe disposal of nuclear wastes. In principle this is also already possible, but the NIMBY syndrome makes this a politically challenging perhaps unfeasible- project. The lessons of Chernobyl, as set out in this excellent book, have been learned. Can we learn to apply them?

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

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EDITORIAL DEADLINES

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|---------------|-------------------|
| September | July 28 |
| October | August 28 |
| November | September 28 |
| December | October 28 |
| January 2020 | November 28, 2019 |
| February 2020 | December 28, 2019 |
| March 2020 | January 28, 2020 |
| April | February 28 |
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Visit Uswww.TheIndicator.org

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Address advertising correspondence to Advertising Manager. Other correspondence to the Editor.

June Calendar

NEW YORK SECTION

Tuesday, June 4, 2019

New York Nanoscience Discussion Group
See page 8.

Thursday, June 6 2019

Chemical Marketing and Economics Group
See pages 8 and 9 .

Friday, June 7, 2019

Board of Directors Meetings
See page 8.

also

Tuesday, September 24, 2019

Biochemical Topical Group
See page 10.

Friday, September 13, 2019

Friday, November 15, 2019
Board of Directors Meetings
See page 8.

Saturday, October 5, 2019

Science Café - The Periodic Table People
See page 11.



NORTH JERSEY SECTION

No Executive Meeting in June

Monday, September 23, 2019

Executive Meeting and Awards Dinner
See page 25..

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Deadline for items to be included in the September 2019 issue of *The Indicator* is

July 28, 2019

***The Indicator* is posted to the web around the 15th of the previous month at**

<https://www.TheIndicator.org>



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**Hosted by the Maryland
Section of the ACS
May 30th – June 1st, 2019
UMBC, Baltimore, Maryland**

www.MARM2019.org

Major Symposia

Combating the Opioid Crisis with Chemistry
Atmospheric and Environmental Chemistry
Nanotechnology
Spectroscopy and Homeland Security
Photonic Materials
Optimization Methods in Chemistry
Food Chemistry
Emerging Investigators: Early Career Organic Chemists

Undergraduate and Employment Programming

Career Pathways and Resume Review
Panel Discussions: Recent Chemistry Grads Share Their Experiences
Chemistry Jobs - Employers' Perspectives
Challenges for International Chemistry Students and Professionals
A Special Undergraduate Luncheon with Chemistry Trivia and Prizes

Special Women Chemist Committee Programming

Leadership Workshop: Collaborating Across Boundaries
Panel Discussion: Science Policy & Government - A Bridge Between Research and the Public, and a Path for Non-Traditional Chemists

Chemagination a competition for High School Students

Programming for Post-Secondary Educators

Technology in the Undergraduate Classroom
Humanizing Science: The Key Roles of Mentoring and Building Community

Session for Primary and Middle School Teachers

Bringing Forensic Science Back to Your Classroom

April 22, 2019



This message is sent on behalf of Jason Ritchie, Chair of the Committee on Local Section Activities (LSAC) and Betty Jo Chitester, Chair of the LSAC Subcommittee on Grants and Awards.

Dr. Amjad Ali
4 Mackenzie Ct
Freehold, NJ 07728

Dr. Amjad Ali ,

We are pleased to inform you that the North Jersey local section was awarded **\$3450** for the Local Section Innovative Project Grant (IPG). Your program entitled, 'The Art of Chemistry', impressed the review committee and was chosen for full funding. Congratulations!

To claim your section's award, the section chair should complete the [IPG Acknowledgment](#) form no later than **May 7, 2019**. Doing so will ensure your section receives its funding on-time. Additionally, a final report on the use of your section's award is due upon the completion of your project. To submit your report, please log into your [Good Done Great](#) account and submit your report. Please note that the original applicant will be the only person able to complete the final report as it is linked to the original application they submitted.

If your grant includes the purchase of equipment, you will need to complete the statement in the online acknowledgement and acceptance form that refers to consumable equipment purchased through the IPG. Non-consumable equipment purchases remain the exclusive property of the local section and must be made accessible to the local section members.

This round of IPG proposals was very competitive with limited monies available to fund, so congratulations on submitting a winning proposal! LSAC looks forward to hearing about the success of your proposed activities in your Annual Report and possibly in a [ChemLuminary Award](#) self-nomination via FORMS. Please help us document the success and impact of your activities and programs in your final report so that we might share those ideas with other local sections.

Should you have any questions regarding this grant program, please contact Ben Hall at b_hall@acs.org or email lsac@acs.org.

Sincerely,

Jason Ritchie and Betty Jo Chitester

April 22, 2019



This message is sent on behalf of Jason Ritchie, Chair of the Committee on Local Section Activities (LSAC) and Betty Jo Chitester, Chair of the LSAC Subcommittee on Grants and Awards.

Dr. Justyna Widera-Kalinowska
One South Ave
Garden City, NY 11530

Dr. Justyna Widera-Kalinowska ,

We are pleased to inform you that the New York local section was awarded **\$1825** for the Local Section Innovative Project Grant (IPG). Your program entitled, 'Creation of a Symposium Session Introducing Undergraduates to Industrial and National Lab Research', impressed the review committee and was chosen for full funding. Congratulations!

To claim your section's award, the section chair should complete the [IPG Acknowledgment](#) form no later than **May 7, 2019**. Doing so will ensure your section receives its funding on-time. Additionally, a final report on the use of your section's award is due upon the completion of your project. To submit your report, please log into your [Good Done Great](#) account and submit your report. Please note that the original applicant will be the only person able to complete the final report as it is linked to the original application they submitted.

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Should you have any questions regarding this grant program, please contact Ben Hall at b_hall@acs.org or email lsac@acs.org.

Sincerely,

Jason Ritchie and Betty Jo Chitester

New York Meetings

<https://www.newyorkacs.org>

ACS, NEW YORK SECTION BOARD OF DIRECTORS

MEETING DATES FOR 2019

There will be no Board of Directors meeting in May.

The dates for the Board of Directors Meetings of the ACS New York Section for 2019 have been selected and approved. The meetings are open to all – everybody is welcome. All non-board members who would like to attend any of the meetings should inform the New York Section office by emailing Mrs. Marilyn Jespersen at njesper1@optonline.net or by calling the Section office at (516) 883-7510.

Dates and locations of the meetings are posted below and on the New York Section website at <https://www.NewYorkACS.org>. Prof. Justyna Widera-Kalinowska will chair all meetings. Refreshments will be available starting at 6:00 PM and the board meetings will start at exactly 6:30 PM.

The Board Meeting dates and locations for 2019 are:

Friday, June 7, 2019 (Board of Directors Meeting), St. Johns University, NY

Friday, September 13, 2019 (Board of Directors Meeting), Adelphi University, NY

Friday, November 15, 2019 (Board of Directors Meeting), Adelphi University, NY

More information will be posted in future monthly issues of *The Indicator* and on the New York website at <https://www.NewYorkACS.org>

St. John's University

8000 Utopia Parkway, Queens, NY

Directions

<https://www.stjohns.edu/campuses/queens-campus/directions>

Adelphi University

1 South Avenue, Garden City, NY 11530

Directions

<https://visit.adelphi.edu/travel-info/directions>

NEW YORK NANOSCIENCE DISCUSSION GROUP

Hosted by the New York University
Department of Chemistry

Speakers to be announced

The NYNDG is an ACS Topical Group that meets in the New York University Department of Chemistry. Sessions feature three 30-minute presentations on nanoscience, one each with strong orientation in biology, chemistry, and physics/applied mathematics. Presentations will be focused on discussion of recent work, although speakers will place the work in a context understandable to a broad audience.

Date: Tuesday, June 4, 2019

Times: Refreshments at 7:00 PM
Science at 7:30 PM

Place: NYU Silver Center
31 Washington Place, between
Washington Square East and
Greene Street, Room 1003
(10th floor)
New York, NY

For more information, contact: James
Canary (james.canary@nyu.edu)

Topical Group History: <https://www.nyu.edu/projects/nanoscience>



CHEMICAL MARKETING & ECONOMICS GROUP

Economic Outlook

Speaker: Dr T. Kevin Swift
Chief Economist
American Chemistry Council
Washington, DC

Date: Thursday, June 7, 2019

Times: Registration and Networking
11: 15 AM - 12:00 noon
Luncheon 12:00 noon - 1:00 PM
Talk - Webcast 1:00 PM - 2:00 PM

Place: Penn Club
30 West 44th Street
New York, NY

Cost: Lunch: \$120 non-members
\$90 members

Check for early-bird savings
Webcast: \$30; free webcast
recording for ACS members

See flyer on page 9 for full details.



Economic Outlook

CME ACS NY Luncheon/Webcast • June 6, 2019 • Penn Club

Abstract

- Will there be a recession and what are the key factors to watch?
- What are the prospects for trade, industry and energy segments?

Dr. Kevin Swift will share his expert outlook on the major economic trends that will shape the North American chemical industry. He monitors the business of chemistry which is the building block for everything around us, supporting almost 25 percent of the US GDP. It is vital to continued expansion, job creation, and the return of a strong domestic manufacturing sector.

You are cordially invited to attend this important CME Luncheon and Live Webcast. Over the years Dr. Swift has provided us with an accurate, bird's-eye view of the evolving issues including the credit crisis, the impact of the energy and housing markets, and the growth opportunities for the chemical industry.

With the ever increasing geopolitical and economic challenges, we are looking forward to having Dr. Swift join us again in NYC to share his updated views on what the chemicals industry can expect in the coming year.

Biography



Dr. T. Kevin Swift is the Chief Economist at the American Chemistry Council (ACC) in Washington, DC, where he is responsible for economic and other analyses dealing with markets, raw materials, trade, tax, energy, and competition and innovation, as well as monitoring business conditions and identifying emerging trends for the domestic and global chemical sector. Prior to joining the ACC, Dr. Swift held executive and senior level positions at several business information/database companies. Dr. Swift started his career at Dow Chemical USA. Dr. Swift is currently vice president of the National Association for Business Economics (NABE) and is a member of NABE's panel of 40 professional forecasters and The Wall Street Journal Forecasters Survey panel. Dr. Swift received a doctorate in business administration from Anglia Polytechnic University. He also holds a BA degree from Ashland University and his MA degree in Economics from Case Western Reserve University. Dr. Swift is an adjunct professor of business economics at the University of Mary Washington.



Event Schedule

Location:
Penn Club
30 W 44th Street, NYC

Event Times: (ET)
11:15 am - 12:00 noon
Registration and
Networking
12 noon - 1 pm Luncheon
1 pm - 2 pm Talk - Webcast

Luncheon Fees
\$120 for non-members
\$90 for members
Check for Early-bird savings
Webcast : \$30. Free webcast
recording for ACS members

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EMPLOYMENT AND PROFESSIONAL RELATIONS COMMITTEE OF THE NEW YORK SECTION

To Human Resources Departments in Industry and Academia

The Employment and Professional Relations Committee maintains a roster of candidates who are ACS members seeking a position in the New York metropolitan area. If you have job openings and would like qualified candidates to contact you, please send a brief job description and educational/experience background required to hessytaft@hotmail.com.

Candidates from our roster who meet the requirements you describe will be asked to contact you.



BIOCHEMICAL TOPICAL GROUP – JOINT MEETING WITH THE NYAS BIOCHEMICAL PHARMACOLOGY DISCUSSION GROUP

Targeted Protein Degradation: From Chemical Biology to Drug Discovery

Organizers: Lynn M. Abell, PhD
Agios
Matthew Calabrese, PhD
Pfizer
Eric Fischer, PhD
Dana-Farber Cancer Center
Adam Gilbert, PhD
Pfizer
Matthew Medeiros, PhD
Agios
Claire M. Stepan, PhD
Pfizer

Keynote: James Bradner, MD
Novartis Institutes for BioMedical Research

Speakers: Paola Castaldi, PhD
AstraZeneca
Philip Chamberlain, D.Phil
Celgene
Danette Daniels, PhD
Promega

Benjamin Ebert, MD, PhD
Dana-Farber Cancer Institute
Harvard Medical School

Eric Fischer, PhD
Dana-Farber Cancer Institute
Harvard Medical School

Andreas Martin, PhD
University of California,
Berkeley

Michael Rape, PhD
University of California,
Berkeley

Shaomeng Wang, PhD
University of Michigan
Medical School

Ingrid Wertz, PhD
Genentech

Targeted protein degradation is a new therapeutic approach with potential to inhibit “undruggable” drivers of disease. This symposium will highlight the latest advances in the field of targeted protein degradation and showcase its benefits over traditional small molecule inhibitors.

Date: Tuesday, September 24, 2019

Time: 8:30 AM – 6:00 PM
(reception to follow)

Place: The New York Academy of Sciences
7 World Trade Center
250 Greenwich Street – 40th Floor
New York, NY 10007

Cost: ACS and NYAS members save \$50 or more on this event. Please select the appropriate member/non-member Registration Category and use the Priority Code “ACS”.

Early Bird Discounted Registration
Deadline: Friday, August 16, 2019.

Abstract Submission Deadline: **Friday, August 2, 2019.**

For more information and to register for the event, go to:

<https://www.nyas.org/Protacs2019>

To become a Member of the Academy, visit <https://www.nyas.org/benefits>

NEW YORK SECTION – SCIENCE CAFÉ – “THE PERIODIC TABLE PEOPLE”

FUTURE EVENT

A Science Café and Contest Celebrating the International Year of the Periodic Table

This is an early notice of a Science Café and contest being held for the NY Section of the American Chemical Society to celebrate the International Year of the Periodic Table. It is being organized by Sally Mitchell and Sr. Mary Virginia Orna, Ph.D., both board members of the Westchester Chemical Society (a local sub-section of NYACS), using grant money from the ACS.

Periodic Table People: An Invitational Essay/Interactive Skit Contest from the American Chemical Society New York Section in a Gala Celebration of the International Year of the Periodic Table.

Come One! Come All! Fun, eats, contest, grand prizes, skits, for all levels of chemistry, for teams of faculty members and students. And assemble a Cupcake Periodic Table – chemistry so good you can eat it!

What? Science Café.

When? Saturday, October 5, 2019

Time? 2:00 PM

Where? The Sullivan Hall cafeteria
St. John's University
Queens, NY

Students at any level of chemistry instruction are invited to submit a faculty-student-team-researched-and-written brief essay (1,000 words or less) describing a personality in the Periodic Table (see list below). The essay should contain biographical information, the contribution of this person to science, and a justification for his/her place in the table. At least two supporting scholarly references (not taken from the internet) should accompany the essay; they will not figure in the word count. The competing teams will perform a 5-minute (or less) skit based on the essay at the NY Section Science Café. Essays/skits will be judged on the depth and clarity of science covered, the quality of research, and historic content as evidenced in the skit. Winning teams will receive one of three Grand Prizes for their schools: a voucher for supplies selected from the Flinn Catalog (1st prize - \$300; 2nd prize - \$200;

3rd prize - \$100). **By September 10**, submit your team's (3 persons minimum, including your faculty member) intent to participate along with your preferred five Periodic Persons to chemsource.info@gmail.com; you will receive your designated "person" by return email, on a first-come first served basis to avoid duplicates. **Before September 30, 2019, please submit your essay and skit outline along with a captioned photograph of your team to the same email address.** Please include the name and location of your institution and contact information. **Essay entries and skit outlines will be judged and admitted for performance at the Science Café by October 1. Winners will be judged and announced at the American Chemical Society New York Section Science Café on October 5, 2019 being held at St. John's University, Queens, NY at 2:00 PM.** Refreshments, team prizes, camaraderie!! Come one, come all! To be eligible for one of the grand prizes, you **MUST** present your skit at the Science Café. Essays submitted by email only without a skit will be eligible for a Periodic Table-related prize only.

Periodic Table People (choose your top five and submit to chemsource.info@gmail.com with name of team leader, institution, and email address):

| At. No. | Person |
|---------|-----------------------------|
| 62 | Vassili Samar-sky-Bykhovets |
| 64 | Johan Gadolin |
| 96 | Marie Curie |
| 96 | Pierre Curie |
| 99 | Albert Einstein |
| 100 | Enrico Fermi |
| 101 | Dmitri Mendeleev |
| 102 | Alfred Nobel |
| 103 | Ernest O. Lawrence |
| 104 | Ernest Rutherford |
| 106 | Glenn Seaborg |
| 107 | Niels Bohr |
| 109 | Lise Meitner |
| 111 | Wilhelm Roentgen |
| 112 | Nicolaus Copernicus |
| 114 | Georgy Flerov |
| 118 | Yuri Oganesson |

WESTCHESTER CHEMICAL SOCIETY

On April 24, 2019 Dr. Louis Massa was presented the Westchester Chemical Society's (WCS) 2019 Distinguished Scientist Award for "The Discovery and Development of Quantum Crystallography." The award was presented at the WCS Distinguished Scientist and Student Achievement Award Dinner Meeting. This was held at Pace University, Pleasantville New York.



Joseph Krumberger Opening the Meeting
(Photo courtesy of Paul Dillon)



Louis Massa Giving His Distinguished Scientist Lecture
(Photo courtesy of Paul Dillon)

Dr. Massa is a Professor at Hunter College and the CUNY Graduate Center. He has published over 200 peer-reviewed articles in prestigious journals such as Physical Review Letters and the Proceedings of the National Academy of Sciences and has served on the editorial board for "Structural Chemistry". As Science & Technology Editor for CUNY-TV, he hosted the TV program "Science & the Written Word", and his book with that same title is based on interviews with scientists featured on the TV program. His contributions and those of his students in the field of Quantum Crystallography have been honored during recent international meetings devoted to that field, now one of rapidly rising influence. He has collaborated with three different Nobel Laureates in applications of quantum mechanics to scientific problems.



In addition to many friends and colleagues, almost the entire WCS board attended the meeting, specifically the co-chairs, Rolande Hodel, Ph.D. and Paul Dillon, Ph.D.; our Education Director and Treasurer, Peter Corfield, Ph. D., who most success-

Rolande Hodel and Paul Dillon Presenting the Distinguished Scientist Plaque to Louis Massa
(Photo courtesy of Rolande Hodel)

fully was the main driving force behind the meeting; our assistant Program Director, Joseph Krumpfer, Ph.D.; our Westchester Community College Liaison and Insurance Director, Jody Reifenberg, M.D.; our High School Liaison, Sally Mitchell; and two directors at large, Jean Delfiner and Joan Laredo-Liddell.

Following a period of registration, socializing and snacks, Dr. Krumpfer, who is also an Assistant Professor in the Department of Chemistry and Physical Sciences of the Dyson College of Arts and Sciences at Pace University, formally opened the meeting with a welcome from Pace University. Dr. Hodel announced the choice of Dr. Massa as our Distinguished Scientist 2019. She and Dr. Dillon presented Dr. Massa with a commemorative plaque.

For his lecture, Dr. Massa gave a brief description of classical X-ray crystallography noting that the X-Ray scattering patterns can be “translated” (mathematically) into the positions of the atoms in a crystal. This geometrical information gives it tremendous importance. That’s why crystallography underlies more science Nobel Prizes than any other subfield of science. Quantum Crystallography (QCr) goes a step further, enabling us to deduce the distribution of electrons throughout the crystal. The diffraction pattern can be used to determine the best linear combination of electron orbitals (atomic and/or molecular orbitals for isolated molecules). The combination of atomic geometries and electron distributions allow many physico-chemical properties to be estimated. He described the work of Huang, Massa, & Karle, which evolved from the work of Massa, & Clinton, suggesting a true quantum mechanical formalism of crystallographic X-ray scattering, i.e., QCr. He likened the addition of quantum calculations to the determination of atomic locations to ever-improving translations between X-Ray scattering patterns and properties. After the lecture, an audience member suggested that classical crystallography could be likened to translation of individual words (i.e., of atomic positions) between languages but that QCr is analogous to accurate translation also of the grammar (i.e., electron densities) holding the words together coherently. Dr. Massa also noted that, although QCr was initially limited to smaller systems, when it is combined with a fragmentation technique, called the “kernel energy method (KEM)”, QCr’s reach to larger molecules can be extended to molecules of almost “any size”. At present QCr is evolving widely with many scientists developing their own formalisms and applications, which are activities much to be desired. **(More pictures on the following 6 pages)**



**Peter Corfield
Announcing the
Student Awardees**

*(Photo courtesy of
Paul Dillon)*

In addition to the Distinguished Scientist Award, the Westchester Chemical Society also presented a number of undergraduate and high school achievement awards. These awardees were:

School

College of Mount Vincent
College of New Rochelle
Fordham University
Iona College
Manhattan College
Manhanttanville College
Pace University, Pleasantville
St. Thomas Aquinas College
Westchester Community College
Briarcliff High School
Horace Greeley High School
Ossining High School
Rye High School

Awardee

Lauren Vetoulis
Rebekah Merancy
Maja Sato
Joseph Annabi
Annabelle Chiaravelle
Melissa O’Mara
Neslihan Tabaru
Sean Leiper
Cassidy Grosz
Letitia Chan
Jack Lehrhoff
Claire Martin
Mika Mizobuchi

Faculty

Andrea Minei
Lee Warren
Jon Friedrich
Rodney Versace
John Regan
Darlene Gandolfi
Joseph Krumpfer
Paul Dent
Jody Reifenberg
Robert Saar
Christina Provenzano
Valerie Holmes
Sally Mitchell

We should like to note that the awardee from Ossining High School, Claire Martin, is the grand-daughter of WCS’s Dr. Corfield (chosen strictly by her school).

WESTCHESTER CHEMICAL SOCIETY

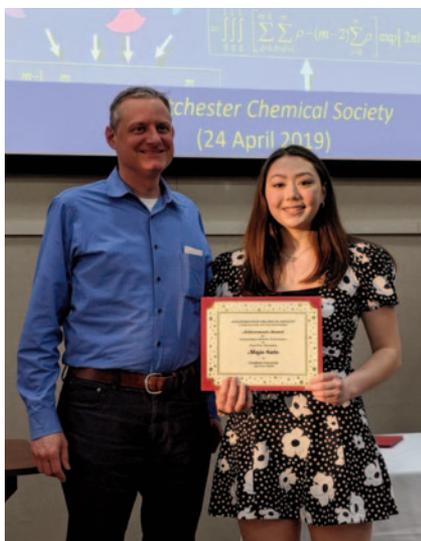
(continued from page 13)



Peter Coriell and Lauren Vetoulis
(College of Mount Saint Vincent)



Lee Warren and Rebekah Merancy
(College of New Rochelle)



Jon Friedrich and Maja Sato
(Fordham University)



Rodney Versace and Joseph Annabi
(Iona College)



Annabelle Chiarvalle (Manhattan College) with her father Nick Chiaravelle.



Joseph Krumpfer and Neslihan Tabaru (Pace University)



Paul Dent and Sean Leiper (St. Thomas Aquinas College)

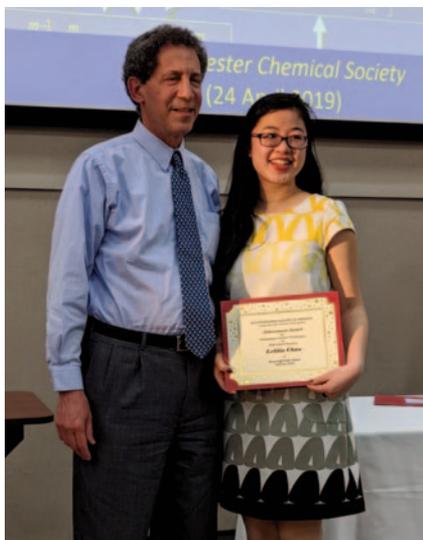


Jody Reifenberg and Cassidy Grosz (Westchester Community College)

(continued on page 16)

WESTCHESTER CHEMICAL SOCIETY

(continued from page 15)



**Robert Saar and Letitia Chan
(Briarcliff High School)**



**Sally Mitchell and Mika Mizobuchi
(Rye High School)**



**Peter Corfield, Claire Martin and
Valerie Holmes (Ossining High
School)**



**Peter Corfield and Jack Lehrhoff
(Horace Greeley High School)**

Regarding the photos of the Student Awards: Typically, the awardee's faculty advisor makes the presentation, but in some cases (Andrea Minei of The College of Mount Saint Vincent, John Regan of Manhattan College and Christina Provenzano of Horace Greeley High School) the advisor could not attend, in which case Dr. Corfield makes the presentation. Accompanying the Manhattan College awardee, Annabelle Chiarvalle, in the photo on page 15, is her father, Nick Chiaravalle. In addition, because Manhattanville College had its own award ceremony on the evening of the 24th, their awardee Melissa O'Mara and faculty advisor, Darlene Gandolfi, could not attend. We would like to thank Paul Smith, Ph.D. (of Fordham University) for supplying all of these photos (except that of Rodney Versace and Joseph Annabi, courtesy of Paul Dillon):



The Student Awardees with Paul Dillon, Peter Corfield and Rolande Hodel

(Photo courtesy of Paul Dillon)



The Ossining High School Awardee, Claire Martin, her faculty advisor, Valerie Holmes, her grandparents, Peter and Gillian Corfield, and parents, Rachel and Yves Martin, Ph.D.

(Photo courtesy of Paul Dillon)

WESTCHESTER CHEMICAL SOCIETY

(continued from page 17)

Finally are some “random” shots around the event (all courtesy of Rolande Hodel).





**Deadline for items to
be included in the
September 2019 issue
of *The Indicator* is**

July 28, 2019



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NEW YORK SECTION'S CHEMISTS CELEBRATE EARTH WEEK

8th Annual “Walk the Brooklyn Bridge” Event

It was a beautiful, clear, and sunny day on Saturday, April 27th – perfect for students and faculty, members of the New York Section of the ACS, and friends and families to come together to celebrate the 8th Annual Chemists Celebrate Earth Week’s “Walk the Brooklyn Bridge” event!

<http://www.newyorkacs.org/meetings/EarthDay/CCED.php>

The following is a list of affiliations that were represented: Adelphi, BMCC, Birch Wathen Lenox School, Brooklyn College, City College, CTI Technologies, DOE, Felix Festa Middle School, Fordham, Generation BIO, Google, Greenvale School, Guttman, Hillcrest High School, Hofstra, Hunter, Kingsborough, Montclair Kimberley Academy, New City Elementary School, NY City College of Technology, NYIT, NYPD, NYU, Pace, PepsiCo, Pfizer, Polytechnic Institute of NYU, QCC, Rye High School, Ridgeway Elementary School, Saint Joseph’s, St. John’s, St. Mark’s Evangelist School, St. Saviour High School, Stevens Institute of Technology, Stony Brook, USMMA, and WenTek Global.

There were more than 225 earth day lovers who gathered at Pace University (the host institution) at 11 am to begin the celebration. The morning started with a welcome by Dr. JaimeLee Rizzo, Assistant Chair of Chemistry, Pace and Coordinator of Chemists Celebrate Earth Day, followed by opening remarks by Dr. Justyna Widera, Chair of the ACS-NY Section. Dr. Emler Mojica announced and introduced winners of our Illustrated Poem Contest. One of the winners, Milani Gardner of St. Mark’s Evangelist School along with her family, was present to accept the award. The Keynote Speaker, Prof. Eric Brenner, Department of Biology, Pace, delivered an informative and eye-opening talk entitled, “Before the paper: the dynamic plant”. At the start of the event, each participant was provided with a light breakfast, coffee/tea and snacks. We had a “blender bar” which we used to prepare healthy fresh root turmeric shots and ginger shots to energize our guests! We then took our traditional Earth Day group photo and began to gather for our parade across the iconic and beautiful Brooklyn Bridge! We proudly displayed our Chemists Celebrate Earth Day Banner which led our enthusiastic contingency and individual schools/institutions proudly displayed their own banners and posters.

We returned to Pace where we had lunch and dessert. Our “blender bartenders” also prepared delicious and healthy fresh fruit and veggie smoothies with additional add-ins including spirulina, chlorella, wheatgrass, beet powder, match, maca, chia, flax, cocoa nibs, hemp, moringa, mushroom powder, collagen, MCT oil, coconut oil, hemp oil, and marine phytoplankton.



Generous supporters of the event included: Pfizer, Pace University, the Chem Club of Pace, St. Joseph's College, Adelphi University, Guttman College, CUNY, the U.S. Merchant Marine Academy, Hunter College, CUNY, and Kingsborough Community College, CUNY.

We were blessed with perfect weather for our gathering in an effort to bring awareness to all with issues relating to our beautiful Earth.



(Photos courtesy of JaimeLee Rizzo)

LONG ISLAND SUBSECTION

EVENTS AND PROGRAMS

The Long Island – ACS (LIACS) is a subsection of the New York Section of the ACS. Its objectives include 1) the encouragement of the interchange and sharing of scientific knowledge of chemists and chemical engineers working or residing in the counties of Queens, Nassau or Suffolk, and 2) development of interest in science on the part of all citizens of the area. Please visit our website for our programs: http://www.newyorkacs.org/sub_island.php

2019 Spring April Seminar & General Meeting

On the evening of Thursday, April 4, 2019, a total of fifty-three LIACS members and affiliates attended the April Seminar and General Meeting. At the start of the meeting, we announced the upcoming events sponsored by the NYACS and/or LIACS, and invited all to attend these events. The April seminar speaker was Dr. Ruel Desamero of the York College, who enlightened the audience with a molecular approach to disrupt or enhance amyloid formation, which, in particular, has great implications for structural and functional material design. Dr. Desamero received his B.S. degree from the University of the Philippines and Ph.D. in Chemistry from the University of Connecticut. Before joining as a Chemistry faculty at the York College of CUNY, Dr. Desamero conducted his postdoctoral research at City College of CUNY, and Albert Einstein College of Medicine. Dr. Desamero's current research utilizes biophysical methods, particularly vibrational spectroscopy, to probe the dynamics of peptide aggregation. The main goal is to eventually design effective inhibitors that would slow down or abolish protein aggregation. Seven members enjoyed their dinner with Dr. Desamero after the seminar at Maria's Greek Restaurant, Queens, NY. Our special thanks also go to the Queensborough Community College (QCC) Chemistry Department and the following Student Clubs for supporting the Seminar Program and for providing refreshments: STEM Academy, Chemistry Club, QCC Affiliates of the ACS, STEM Research Alliance, Student Health Club, Biology Club, STEM Research Club, and Environmental Sustainability Club.



The LIACS Spring April Seminar featuring Dr. Ruel Desamero of the York College. Pictured with Dr. Desamero are Dr. Ping Furlan, the LIACS Chair, and two students, Shanelle Smith and Kieann Simon, who attend and help set up the LIACS Monthly Seminars.

(Photos by LIACS Publicity Chair, Dr. Paul Sideris)

NEW YORK REGIONAL SECTION OF SAS STUDENT POSTER SESSION IS A HUGE SUCCESS

By Debbie Peru

The New York (New Jersey) Regional Section of the Society for Applied Spectroscopy (NYSAS) held their annual student poster session at the University of Albany. The meeting was coordinated by the Undergraduate students in Dr. Igor Lednev's group and sponsored by Horiba Scientific. The key note speaker invited was Dr. Isao Noda, Affiliated Professor at the University of Delaware, Department of Materials Science and Engineering. The meeting was held on May 1, 2019 from 5:00 - 7:30 PM in the Life Sciences building. Undergraduate student poster presentations were on display during the dinner portion of the meeting and offered an opportunity for the students to meet with Dr. Noda and industrial colleagues and discuss their research.



The title of Dr. Isao Noda's key note presentation "Two-Dimensional Correlation Spectroscopy and Development of Bioplastics Nodax™" was an interesting retrospective story pertaining to his journey in developing a biodegradable polymer for use in consumer products. Dr. Noda received his M.S. in bioengineering (1976), as well as M.Phil. (1978) and Ph.D. (1979) in chemical engineering from Columbia. In 1997 he received a D.Sc. degree in chemistry from the University of Tokyo. He worked for the Procter and Gamble Company in Cincinnati, Ohio from 1978 to 2012. After his retirement from P&G, he became an Affiliated Professor at the University of Delaware and also holds the position of Chief Science Officer and Senior Vice President at Danimer Scientific in Bainbridge, GA. His research interest is in the broad area of polymer science and spectroscopy.

Dr. Noda is widely recognized for his scientific contributions and has received a number of prestigious awards including: the 1991 SAS William F. Meggers Award, the 2002 Coblenz Williams-Wright Award, the Cincinnati Section of ACS Chemist of the Year award in 2005, the 2009 International Academic Cooperation and Exchange Medal from the Chinese Chemical Society and Chinese Optical Society, the NYSAS Gold Medal award winner in 2009, and the Ellis R. Lippincott Award in 2011. In 2011 he became a SAS Fellow and in 2013 an Honorary Member of SAS, and in 2012 a Fellow of the Optical Society of America.

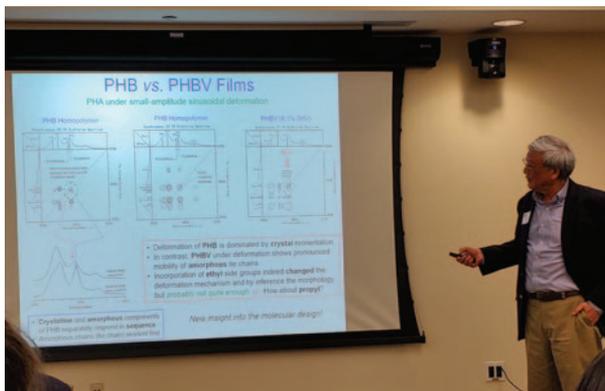
The theme of the presentation was how 2D correlation spectroscopy (2D-COS) was pivotal in helping to interpret spectral data collected to better understand polymer performance characteristics. The spectral methodology guided development of the Nodax polymer technology. 2D correlation spectroscopy is a data analysis method that can simplify a set of complicated spectra consisting of many overlapped peaks. It provides enhancement of spectral resolution by spreading peaks over a second dimension, and establishes unambiguous assignment of correlation bands coupled by interaction mechanisms. 2D correlation spectroscopy has played a key role in the molecular design and characterization of a class

(continued on page 24)

NEW YORK REGIONAL SECTION OF SAS STUDENT POSTER SESSION IS A HUGE SUCCESS

(continued from page 23)

of bio-based and fully biodegradable plastics, which is now commercialized by Danimer Scientific in Bainbridge, GA under the trade name of Nodax™. Danimer's Nodax™ belongs to a very interesting class of aliphatic polyesters called poly(hydroxyalkanoates) or PHAs, which are found as intracellular inclusion bodies in various microorganisms. Because they are made by bacteria, PHAs are fully biodegradable under right conditions. However, most



of PHAs known in the past had serious shortcomings in their physical properties to be a useful material. The 2D-COS methodology applied to a series of spectral data collected during mechanical deformation of PHA and various co-polymers provided critical insight into a way to modify the molecular structure of PHA to make this class of biomaterials much more useful, and inexpensive to become a viable replacement for conventional petroleum-based plastics.

The talk covered the background and interpretation of 2D correlation spectroscopy and several example applications including; Time dependent change during solvent evaporation of mixtures of polymers, temperature dependent NIR spectra of oleyl alcohol. Dr. Noda reviewed the early development, and fundamental research carried out on Nodax™ PHAs using this versatile spectroscopic technique. One key learning shared with the students was "Fundamental Science is key to Materials Development."

We had 25 students and industrial members attend the meeting. Debbie Peru presented Dr. Noda with an engraved NYSAS prism paperweight as a token of appreciation. Jalissa Thomas, Undergraduate student in Dr. Lednev's group, presented the student poster presenters with a gift card as a token of appreciation for their time and excellent contributions. Most notable was that this event was attended by three past NYSAS Gold Medal Award winners – Dr. Isao Noda (2009), Dr. John Reffner (2014), and Dr. Igor Lednev (2018). The students had a great time and benefitted greatly from this experience.



More information about the NYSAS organization and a schedule of meetings please go to our website <https://www.nysas.org>.

(All photos courtesy of Debbie Peru)

North Jersey Meetings

<https://www.njacs.org>

NORTH JERSEY EXECUTIVE COMMITTEE MEETING

The Executive Committee will not meet in June. Our next meeting will be on **September 23, 2019** at Seton Hall.

(See <https://www.njacs.org> for more details.)

Positions Available

NEW JERSEY INSTITUTE OF TECHNOLOGY

UNIVERSITY LECTURER - CHEMISTRY

New Jersey Institute of Technology has an opening for a University Lecturer - Chemistry in the Department of Chemistry and Environmental Science. The position will start in Fall 2019, with responsibilities starting in late August.

Located in the vibrant University Heights district of downtown Newark, New Jersey, just 20 minutes from New York City by train, NJIT is one of the nation's leading public polytechnic universities. With an enrollment of over 11,000 students, a budget of over a half billion dollars, and a full-time workforce of approximately 1,400 employees, NJIT offers small-campus intimacy with the resources of a major public research university. NJIT's faculty and staff take pride in preparing students to be leaders in the technology dependent economy of the 21st century.

The University Lecturer - Chemistry position is a 10-month full-time non-tenure-track faculty position with the chief responsibility being teaching. The successful candidate will have capabilities in teaching general chemistry as well as one or more of the following: organic chemistry, chemistry laboratory, or environmental science. The ideal candidate will have a PhD in chemistry or a related field, and more than two years experience teaching college-level chemistry.

Duties may include but not be limited to:

- Teaching multiple sections of freshman chemistry courses
- Teaching sections of organic chemistry or environmental science
- Teaching chemistry laboratory classes in

areas such as general, organic chemistry, and physical chemistry

- Engaging in Department and University service on committees and workgroups
- Receiving and providing support of teaching skills through formal and informal opportunities

The successful candidate will have the ability to help and motivate students regardless of student preparation or circumstances. NJIT's student body is diverse and is both challenging and rewarding to work with. It is crucial for our instructors to be willing to adapt to and explore new teaching techniques and technologies to better serve our student population. The position also requires the ability to be a team player while operating independently as needed, and being accountable for individual assignments.

Interested candidates are encouraged to apply via our online job portal reached via jobs.njit.edu and searching for **req1253**. Candidates are advised to apply **by June 30, 2019**, although the position will remain open until filled.

NJIT is an Equal Opportunity / Affirmative Action Employer and encourages women, minorities, persons with disabilities and Vietnam era and disabled veterans to apply.



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Analysis:

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| Polymers | Castings |
| Chemicals | Corrosion |
| Metal Phases | Quality Check |
| Contaminations | Product Failure |
| SEM - EDS | DSC - TGA |
| AUGER | ESCA |
| FTIR | XRD |

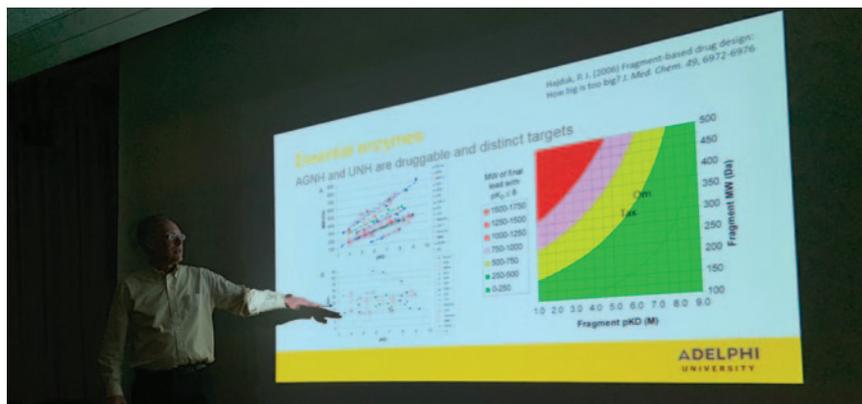
Analytical Service Laboratory

Email our Technicians at
micronanalytical@compuserve.com

302-998-1184
www.micronanalytical.com
3815 Lancaster Pike Wilmington DE, 19805

NORTH JERSEY NMR TOPICAL GROUP

On Wednesday, April 17th at Rutgers University CABM, the NMR Topical Group hosted its April monthly meeting. Brian Stockman, Associate Professor and Department Chair of Adelphi University, joined the group as the guest speaker following the networking and buffet dinner. Dr. Stockman's current research program contains both research and training objectives. He considers these equally important at a primarily undergraduate institution. The research projects include the development of new NMR screening methods, development of NMR-based activity assays for specific enzymes, mechanistic investigations of N-ribohydrolases, and the impact of macromolecular crowding on protein structure/function relationships. The training objective is achieved by immersing undergraduate students in these investigations and exposing them to cutting-edge instrumentation and research. In the seminar, Dr. Stockman presented the one of the research work he is leading which focuses on the design and development of NMR-based activity assays to identify and validate drug fragment leads against two *Trichomonas vaginalis* enzymes. Look forward to more great research coming from the Stockman Lab and the talented undergraduates in training.



Snapshot of Prof. Stockman's presentation.



Dinner and networking were enjoyed by audience before the seminar.

(Photos courtesy of Qi Gao)

NORTH JERSEY: COMMUNITY EVENING AT LIBERTY SCIENCE CENTER FOR EARTH DAY CELEBRATION

By Mirlinda Biba

The NJ-ACS section volunteers helped with Earth Day celebration at the Community Evening event hosted by the Liberty Science Center (LSC) in Jersey City, NJ on the evening of April 17, 2019.

The LSC hosts regular Community Evening events for students and families from disadvantaged communities in NJ and the April event was dedicated to Earth Day celebration. From 5:30 PM to 9:00 PM, guests had the opportunity to explore the museum, engage in various hands-on-activities, and learn more about community resources all at no cost and thanks to LSC and various local volunteer organizations.

The NJ-ACS volunteers, Miriam Gulotta, Amjad Ali, Debra Sweet, Monica Sekharan, Mirlinda Biba, Amanda Peterson Mann, and Ben Mann, along with two NJIT students, Sara Ali and Joe Mancini, set up an Earth Day theme-related hands-on-activities table. This year's ACS Chemists Celebrate Earth Week (CCEW) theme was "Take Note: The Chemistry of Paper," so different kid-friendly paper activities included: separation of colors by paper chromatography and coloring flowers that bloomed in water due to capillary action. The kids also got Earth Day temporary tattoos, stickers, and Earth Day activity magazines.

"The NJ-ACS community outreach such as this event provides a great opportunity to show young students and the general public the great value of chemistry," said Mirlinda Biba.



Miriam Gulotta, Past Chair of NJ-ACS, demonstrating the hands-on-activities and placing a temporary tattoo on a young student.

(Photo courtesy of Mirlinda Biba)

NORTH JERSEY CHROMATOGRAPHY TOPICAL GROUP SEMINAR

The North Jersey Chromatography Group (NJCG) (<http://njcg.org>) hosted an evening seminar on April 8, 2019 at the DoubleTree Hotel in Somerset, NJ. The seminar topic was hydrophilic interaction liquid chromatography (HILIC), which was introduced by Dr. Andrew Alpert in the 1990s for the separation of peptides, nucleotides, and other polar compounds. The research area of HILIC chromatography has continuously grown over the years and especially with the more recent interest of peptides and proteins in pharmaceutical development.

Dr. Andrew Alpert, founder and President of PolyLC, Inc., presented a talk entitled "Hydrophilic Interaction Chromatography with Salts: Hydration State of Counterions is Critical to Retention and Selectivity". In his presentation, Dr. Alpert highlighted the separation mechanism principles in HILIC mode and illustrated the impact of the different salt effects on the separation retention and selectivity.



Snapshot of Dr. Andrew Alpert's presentation

(Photo courtesy of Ying Hu)

The second talk was presented by Dr. Raffael Bennett, a Postdoctoral Research Fellow at Merck & Co., Inc. Dr. Bennett presented on "Enhanced Fluidity Liquid Chromatography in Preparative Scale-up" from his research work as postdoc at Merck on scaling up enhanced fluidity liquid chromatography (EFLC) for the preparative purification of very polar compounds, including sugars and peptides.



Snapshot of Dr. Raffael Bennett's presentation

(Photo courtesy of Ying Hu)

Positions Available

ACS, NEW YORK SECTION

ADMINISTRATIVE COORDINATOR

The New York Section of the American Chemical Society (NYACS) has an opening for an Administrative Coordinator with exceptional administrative and clerical skills. The NYACS is a volunteer organization, the premier membership organization for chemists, chemical engineers, and allied professionals in the New York metropolitan area, and a leader in advancing the public's scientific literacy and appreciation of chemistry.

The Administrative Coordinator reports to the Executive Board of the NY Section, and works closely with all members of the Board of Directors. This is a part-time, contractor position working primarily from home. Hours are generally flexible though certain time commitments are required according to the Board's annual schedule. Local travel to occasional Board meetings and events is required. While the position is year-round, the workload will vary throughout the year, with some times of the year requiring a greater time commitment than others (e.g. annual report to ACS in January, Nichols Symposium in April). The position is expected to start in January 2020, with some training with the previous incumbent in November and December of 2019.

Responsibilities include but are not limited to:

- Coordinate schedule for Board of Directors meetings, held approximately 5 times per year, send meeting notices and minutes, ensure all arrangements made; coordinate Committee meetings as needed (e.g. budget).
- Oversee all arrangements for the January Sectionwide Conference, including notices for publicity, ordering award plaques, ensuring venue and refreshments ordered, programs completed and printed, travel arrangements interactions for invited speakers as needed.
- Create and compile a Section roster which means getting the names of the chairs of all committees etc. and then

contacting them for their members.

- Assisting Board with annual elections, ensuring candidate bios obtained and distributed with ballots to all eligible voting members (elections primarily electronic).
- Make all arrangements for venue and hospitality for the annual Nichols Award Symposium; work with Chair and Chair-elect on invitations, awardee travel, invited speaker travel, serve as prime interface with venue on all contract issues, manage attendee registration.
- Ensure all appropriate communication with ACS completed all time, including election results, annual report, and financial statement.
- Collect all budgets for the Finance Committee and then send a notice to all groups as to their approved budget.
- Collect all annual reports and submit to the chair.
- Oversee all printing projects and engraving of awards.
- Send a letter regarding a Call for Nominations to all USA colleges and universities that have graduate programs.
- Send necessary notices to Indicator and C&E News, re call for nominations, articles about events – OSA, Section Conference, Nichols symposium.

Requirements for the position include:

- Excellent written and oral communication skills;
- Good computer skills and internet access;
- Proficient with Microsoft Office;
- Flexible hours but some evening and weekend work required;
- Excellent time management and organization skills;
- Able to work independently, and able to work with diverse group of professionals;
- Must be able to meet deadlines as required.

For full consideration, submit resume and statement of interest to chair2019@newyorkacs.org by **June 30, 2019**.

Others

2019 TRISTATE CACS ANNUAL SYMPOSIUM



The theme of this year's symposium is "Sustainability in Chemistry: Challenges and Solutions". For over a decade, our annual symposium has a track record attracting R&D leaders and research-oriented business leaders from major pharmaceutical and chemical companies in the Tri-State area as well as in China. Senior R&D leaders from industry (Bristol-Myers Squibb, Johnson & Johnson, Merck, Pfizer, Sanofi, BASF, Dow Chemical, ExxonMobil, Henkel, L'Oréal, Avon, Revlon, IFF, Colgate-Palmolive, ALAM and SINOPEC), distinguished educators from universities (Rutgers, Temple, etc.), Senior Officers from federal agencies (FDA, USPTO, etc.), as well as Presidents of the American Chemical Society, have given keynote speeches at this venue in the past. By showcasing how each institution and the chemical enterprise together benefit our society, the symposium serves as a great channel for advocacy and an educational opportunity for the audience.

CACS- Tristate Chapter is a nonprofit organization that has served the Tri-state region since 1981. Its mission is to provide opportunities of self-development, learning and relationship-building for Chinese chemical professionals from the United States and Greater China in the chemical and pharmaceutical industries. The symposium has, in the past, featured presentations and panel discussions participated by ACS presidents, corporate leaders, entrepreneurs and policy makers on topics ranging from global business and career opportunities, challenges that face the profession of chemistry, healthcare, energy, environmental issues, and the place of chemistry in humanity.

Date: Saturday, June 15, 2019
Times: 9:00 AM - 5:00 PM
Place: Ernest Mario School of Pharmacy
 Lecture Hall
 131, Rutgers University
 Busch Campus
 160 Frelinghuysen Road
 Piscataway, NJ 08854

Call for Volunteers

OPPORTUNITY FOR ACS MEMBERS TO AID STUDENTS 2 SCIENCE IN A HYBRID VIRTUAL LAB PROGRAM

Can you spare a few hours of your time? Do you like working with students and would you like the opportunity to share your science knowledge in a classroom? Students 2Science (S2S) is seeking volunteers to support its V-Lab program. S2S has a series of elementary, middle, and high school experiments that run in various schools across New Jersey. Members are especially needed to mentor students in participating schools to help with experiments. It's great fun, a wonderful way to give back, and only requires 1-2 hours of your time. Experiments include CO₂ to the Rescue, Curious Crystals, Mystery of M&Ms, Thermochemistry: *Exothermic and Endothermic Chemical Reactions, and Glow it Up: The Chemistry of Luminol*. All are age-appropriate and volunteers are provided with instructions on how to support in the classroom prior to your scheduled volunteer day.

For more information, contact Cyndi Roberson, Director of Corporate Relations, at (973) 947-4880 ext. 516 or visit the website to register for the upcoming school year: <https://www.students2science.org>.



SEMINAR SPEAKERS WANTED

The New York Section of the ACS is in search of speakers that we can add to our Speakers Bureau database of interested local area 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 contact the New York Section Office at (516) 883-7510 or send an email to njesper1@optonline.net with the following information that will be posted on the Section's website: your name, affiliation, a 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 our other members!

Call for Nominations

COMMITTEE ON THE HISTORY OF THE NEW YORK 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 Home Page at <https://www.newyorkacs.org> under the Committee on the History of the NY Section. 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 send your nomination, with supporting documentation, to the Chair of the Committee, Dr. Neil Jespersen, at jespersn@stjohns.edu.

Please reach out to your members to consider sending recommendations for this award. All nominations must be submitted by the Division or Committee, after approval from the respective Chair.



THE WILLIAM H. NICHOLS MEDAL AWARD FOR 2020

The New York Section of the American Chemical Society is accepting nominations for the William H. Nichols Medal Award for the year 2020. This distinguished award, established in 1902 by Dr. William H. Nichols for the purpose of encouraging original research in chemistry, is the first award that was authorized by the American Chemical Society. The award is presented annually in recognition of an outstanding contribution in the field of chemistry, and consists of a gold medal and a bronze replica. In March or April, the medals are awarded during the William H. Nichols Meeting that features the Distinguished Symposium related to the medalist's field of expertise and the Medal Award Dinner.

Investigators who have published a significant and original contribution in any field of

chemistry during the five calendar years preceding the presentation meeting are eligible for consideration by the Nichols Medal Jury. The ACS York Section encourages nominations from academia, government and industry.

Each nomination requires a completed nomination form, biographical and professional data, and seconding letters. Since the nomination process utilizes the ACS New York Section website, please access the nomination form and instructions at <https://www.newyorkacs.org/meetings/Nominations/Nichols.php>.

Nominations must be received by May 31, 2019. The Nichols Medal Award Jury will meet in June 2019 to select the William H. Nichols Medalist for 2020.

Questions regarding the nomination procedure should be directed to the ACS, New York Section Office, at njesper1@optonline.net



ACS NEW YORK SECTION'S OUTSTANDING SERVICE AWARD FOR 2019

Each year the New York Section presents the Outstanding Service Award to a very deserving member of the section. Many members of the New York Section provide their time, leadership, talent and educational skills to the New York Section. The tradition of excellence of the New York Section is attributable directly to the cumulative effect of these individuals. Please help the New York Section to recognize the efforts of our colleagues by nominating them for this award. Nominations will be reviewed by a committee consisting of the previous five winners of the award. The Outstanding Service Award for 2019 will be presented at the New York Section's Section-wide Conference in January 2020.

A Nomination letter with supporting information should be emailed to the OSA Committee Chair, Dr. Jill Rehmann at jrehmann@sjcny.edu. It can also be sent to Dr. Rehmann at St. Joseph's College, Department of Chemistry, 245 Clinton Avenue, Brooklyn, NY 11205.

For more information about the award along with a list of former award recipients, please visit the ACS New York Section's website at https://www.newyorkacs.org/awards_nyacs.html. **Nominations close June 30, 2019.**