

## Celebrate National Chemistry Week Oct. 12-18

**“Chemistry Colors Our World”**



*See NY articles on pages 7 and 25  
and NoJ articles on pages 17, 19-23.*

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## **THIS MONTH IN CHEMICAL HISTORY**

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

My recent columns have been inspired by a recent book: "The Chemists' War 1914 – 1918" by Michael Freemantle published by The Royal Society of Chemistry in the U.K. this year (2015). That war, called in the past The Great War (though it was dwarfed by World War II in geographic scope and casualty numbers), saw the involvement of chemists (and other scientists) in unprecedented numbers in forwarding the war effort on both sides of the conflict. In this final column on these subjects I look at a rather unexpected essential chemical of war and of peace: I refer to "potash". In the early nineteenth century a number of great chemists including Humphrey Davy and Justus von Liebig turned their attention to, and published influential books about, the chemistry of agriculture. They showed that essential plant nutrients included nitrogen, phosphorus, and potassium. Artificial fertilizers became the key to improved crop yields up to the present day.

In the early twentieth century the primary source of minerals containing useful amounts of potassium was Germany. The Stassfurt salt mines (near Magdeburg) yielded brines with substantial quantities of potassium chloride, and other minerals rich in potassium. These deposits were first exploited around 1860 and by the early twentieth century Germany had become the potassium supplier to the world's farmers producing some 7 million tons of "potash" annually. A word about nomenclature. Technically the term potash means potassium carbonate but in the agricultural industry it is applied to all sources of potassium minerals. To add to the confusion potassium contents of fertilizers were and still are expressed in terms of potassium oxide. Potash had many other applications besides agriculture. It was important in the manufacture of liquid soaps, glass, explosives, and a host of other more minor applications.

As the entry of the United States into World War I became closer it was clear that domestic sources of potash would have to be developed. In 1913 the US imported a quarter of a million tons of potash from Germany. As the British blockade of German ports strengthened during the war the price of potash increased ten-fold from some \$10 a ton to \$100 a ton. The impact on farming, in particular on cotton growing in the Southern States, was dramatic. This spurred the search for US sources of potassium minerals. The salt lakes of Nebraska turned out to be rich in both sodium and potassium chlorides. By 1917 production of potassium salts from that region rose from 1000 tons a year to over 30,000 tons a year from some ten potash plants. Prices were still high, at over \$150 a ton, but demand still rose. In 1916 production at Searles Lake in California began. Deposits there included sodium carbonate, borax, and potassium carbonate, all minerals useful in the war effort. By 1918 this source was producing 1800 tons of potassium salts a month. In Utah a mineral related to potassium alum, called alunite, was found near Marysville and was worked to produce quite pure potassium sulfate in ton quantities by 1915. Another source of potash was kelp. The marine plants were harvested in San Diego, California, and were fermented to give a solution rich in potassium salts. About 10% of US potassium production came from kelp by war's end.

By 1918 all these sources provided over 50,000 tons a year of potassium compounds but the end of the war led consumers to expect that German sources would become available again, and that prices would drop. The potash industry in the US collapsed. In 1918 over 120 plants were making potassium minerals. By 1921 only about 20 were still in business. The US Congress passed a number of tariff bills in the early 1920s but potash was not on the protected lists. US production fell to less than half of its peak value, and US agriculture turned once again to cheaper imports for most of its potash.

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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.

**CONTENTS**

Advertisers' Index	25
Call for Applications	18
Call for Help	22-23
Call for Nominations	24
Call for Sponsorship	19
Call for Volunteers	18
MARM 2016 articles	12-14, 18
National Chemistry Week	17, 19-23, 25
North Jersey NCW Contests:	
Call for NCW Posters	21
Call for NCW Poetry	20
New York Meetings	5-9
North Jersey Meetings	15-17
Professional/Product Director	25

**EDITORIAL DEADLINES**

November	September 20
December	October 20
January 2016	November 20, 2015
February 2016	December 20, 2015
March	January 20, 2016
April	February 20
May	March 20
June	April 20
September	July 20
October	August 20

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*The Indicator* (ISSN0019-6924) is published on-line monthly except July and August by the New York and North Jersey Sections of the American Chemical Society, Office of Publication, 1 Milbark Court, Homosassa, FL 34446.

All views expressed are those of the editor and contributors and do not necessarily represent the official position of the New York and North Jersey Sections of the American Chemical Society unless so stated. Distributed electronically to members through the website [www.TheIndicator.org](http://www.TheIndicator.org). Non-members are invited to read it online. Members should register their email addresses at [www.acs.org/editmyprofile](http://www.acs.org/editmyprofile).

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## October Calendar

### NEW YORK SECTION

**Thursday, October 1, 2015**

Long Island Subsection

See page 5.

**Thursday, October 1, 2015**

Chemical Marketing & Economics Group

See page 5.

**Tuesday, October 6, 2015**

New York Nanoscience Discussion Group

See page 6.

**Wednesday, October 14, 2015**

Westchester Chemical Society

See pages 6-7.

**Friday, October 16, 2015**

High School Teachers Topical Group

See page 7.

**Sunday, October 18, 2015**

NY National Chemistry Week Celebration

See pages 7 and 25.

**Thursday, October 22, 2015**

Hudson-Bergen Chemical Society

See page 8.

**Tuesday, October 27, 2015**

Biochemical Topical Group

See pages 8-9.

*also*

**Thursday, November 5, 2015**

Long Island Subsection

See pages 9-10.

**Tuesdays, November 10, 2015; February 2 and April 19, 2016**

New York Nanoscience Discussion Group

See page 10.

**Wednesday, November 11, 2015;**

**Wednesday, December 9, 2015; and**

**Early February 2016**

Westchester Chemical Society

See pages 10-11.

### NORTH JERSEY SECTION

**Monday, October 12, 2015**

Careers in Transition

See page 15.

**Thursday, October 15, 2015**

Drug Metabolism Discussion Group

See page 16.

**Saturday, October 17, 2015**

Chem Expo and National Chemistry Week

See pages 17 and 19-23.

**Monday, October 19, 2015**

North Jersey Executive Meeting

See page 15.

**Tuesday, October 20, 2015**

Mass Spectrometry Discussion Group

See page 17.

**Deadline for items to  
be included in the  
November 2015 issue  
of *The Indicator* is  
September 20, 2015**

*The Indicator* is posted to  
the web on the 15th of the  
previous month at  
[www.TheIndicator.org](http://www.TheIndicator.org)

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## New York Meetings

[www.newyorkacs.org](http://www.newyorkacs.org)

### NEW YORK SECTION BOARD MEETING DATES FOR 2015

The dates for the Board Meetings of the ACS New York Section for 2015 have been selected and approved. The meetings are open to all – everybody is welcome. All non-board members who would like to attend any (or all) meetings ought to inform the New York Section office by emailing Mrs. Marilyn Jespersen at [njesper1@optonline.net](mailto:njesper1@optonline.net) or by calling the Section office at (516) 883-7510.

All 2015 Board Meetings will be held on the following dates at St. John's University, 8000 Utopia Parkway, Jamaica, NY. Dr. Paris Svoronos will chair all meetings. Refreshments will be available starting at 6:00 PM while the actual meeting will start at exactly 6:30 PM. Please check Marilyn Jespersen for the exact building and room number. You may also be added in the mailing list if you so desire.

Friday, November 20, 2015

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



### LONG ISLAND SUBSECTION

#### Palladium-Catalyzed Carbocyclization Reactions Involving Carbene Insertions

*Speaker:* Sean Devine, PhD  
Department of Chemistry  
LIU Post

Transition metal-catalyzed cross coupling has revolutionized the way that chemists assemble carbon-carbon (C-C) bonds. These reactions typically involve palladium-catalyzed bond formation between vinyl or aryl halides and organometallic coupling reagents. Our laboratory is currently interested in developing Pd-catalyzed coupling reactions involving vinyl iodides and N-tosylhydrazones to assemble  $\eta^3$ -allyl ligands. Intramolecular trapping with stabilized carbon nucleophiles leads to the generation of vinylcyclopentanes with newly formed sp<sup>3</sup> centers. Migratory insertion of carbene ligands derived from N-tosylhydrazones are the key step in these carbenylative carbocyclization reactions.

**Date:** Thursday, October 1, 2015

Times: Social – 5:30 PM

Seminar – 6:00 PM

Place: CUNY Queensborough  
Community College  
Science Building, S-112

Directions: <http://www.qcc.cuny.edu/about/driving.html>



### CHEMICAL MARKETING & ECONOMICS GROUP

#### Bayer CropScience: What is Next?

*Speaker:* Iain Kelly, PhD  
Research Fellow and  
Director Regulatory Policy and  
Issue Management

**Date:** Thursday, October 1, 2015

Time: 11:00 AM - 2:00 PM

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



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## NEW YORK NANOSCIENCE DISCUSSION GROUP

### 2015-2016 Sessions

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.

**Dates: Tuesday, October 6, 2015**

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](mailto:james.canary@nyu.edu))

Topical Group History:

<http://www.nyu.edu/projects/nanoscience>



## WESTCHESTER CHEMICAL SOCIETY

**Special Seminar – “How Your  
Grandmother’s Diet May Have Changed  
Your Life”**

**Speaker:** Hailey Clancy, PhD  
Lieutenant Colonel, US Army  
Assistant Professor  
Department of Chemistry  
and Life Science  
United States Military Academy  
West Point, NY

Deoxyribonucleic acid (DNA) is the major biomolecule that carries genetic information in all forms of life. Epigenetics refers to chemical modifications of DNA and associated proteins that are inherited without a change in the DNA sequence of an organism. For example, identical twins have the same linear sequence of DNA, but over time the epigenetic modifications to their DNA

can result in a significant difference in their overall health and fitness. Epigenetic modifications control which genes are expressed in a given cell or organism and as such have a major impact on the cell or organism. This talk will introduce the essentials of epigenetic modifications and their impact on the affected organisms.

Lieutenant Colonel Hailey Clancy graduated from Westminster College in Fulton, Missouri with a double major in Biology and Spanish and was commissioned into the US Army in 1992. While on active duty with the US Army, she earned a MS Degree in Environmental Toxicology from Cornell University where she developed a biosensor to detect the bacterium that causes Anthrax. In 2012 she earned a PhD in Molecular Toxicology and Carcinogenesis from New York University, where she conducted research on the effects of human exposure to nickel and its role in lung cancer. LTC Clancy’s military assignments include service as a Transportation and Logistics officer in Germany (Nürnberg, Kaiserslautern, Wiesbaden, and Baumholder), Bosnia-Herzegovina, Iraq (Balad, Diyala, Baghdad), and Fort Drum, NY. She is currently assigned as an Assistant Professor in the Department of Chemistry and Life Science at West Point, NY, where she teaches General Chemistry and Biology. Her military awards include the Bronze Star (with oak leaf cluster), Meritorious Service Medal (with two oak leaf clusters), Joint Service Commendation Medal, Army Commendation Medal (with oak leaf cluster), Army Achievement Medal (with oak leaf cluster) and the Meritorious Unit Citation.

**Date: Wednesday, October 14, 2015**

Times: Refreshments - 5:30 PM

Lecture - 6:00 PM

Place: Westchester Community College  
Gateway Building, Room 110  
75 Grasslands Road  
Valhalla, NY

Cost: Free and Open to the Public

For more information, contact:

Paul Dillon (914) 393-6940

E-Mail [PaulWDillon2@hotmail.com](mailto:PaulWDillon2@hotmail.com)

Or:

Anthony Durante (718) 289-5542 or 5569

E-Mail: [anthony.durante@bcc.cuny.edu](mailto:anthony.durante@bcc.cuny.edu)

**Note: Inclement Weather: Cancellation  
Due to Inclement Weather** — Should Westchester Community College’s Valhalla campus close due to inclement weather (or

has delayed opening or closes early) the meeting will be cancelled. Decisions about delay/closure are made around 6:00 AM for day courses and 3:00 PM for evening courses. The college will communicate delays, closings or early dismissals on their website ([www.sunywcc.edu](http://www.sunywcc.edu)), Facebook, Twitter, and the (914) 606-6900 phone line.



## HIGH SCHOOL TEACHERS TOPICAL GROUP

### A Ray of Light in a Sea of Dark Matter

*Speaker:* Charles R. Keeton II  
Rutgers University  
<[keeton@physics.rutgers.edu](mailto:keeton@physics.rutgers.edu)>

What's in the dark? That question has been asked by generations of children and cosmologists alike. The answer, in our universe, turns out to be surprising and rich. The space between stars is filled with an exotic substance called "dark matter" that exerts gravity but does not emit, absorb, or reflect light. The space between galaxies is rife with "dark energy" that creates a sort of cosmic anti-gravity causing the expansion of the universe to accelerate. Together, dark matter and dark energy account for 95% of the content of the universe. This talk presents an accessible description of how gravity affects light and how astronomers use it to prove dark matter. Gravitational lensing is now a key part of the international quest to understand the invisible substance that surrounds us, penetrates us, and binds the universe together.

**Date:** Friday, October 16, 2015

Time: Social and Dinner — 5:45 PM

Place: Social and Dinner — TBD

Time: Meeting — 7:15 PM

Place: Meeting — New York University  
Silver Center Room 207  
32 Waverly Place (South-east  
corner Washington Sq. East)  
New York, NY 10003

Security at NYU requires that you show a picture ID to enter the building.

In case of unexpected severe weather, call John Roeder, (212) 497-6500, between 9:00 AM and 2:00 PM to verify that meeting is still on; (516) 385-4698 for other info.

Note: On street parking is free after 6:00 PM.

## NY - NATIONAL CHEMISTRY WEEK

*Help the New York Section of the American Chemical Society to Celebrate National Chemistry Week 2015 with the Theme*

### "Chemistry Colors Our World"

Over 20 tables of hands-on experiments, activities, demonstrations, and giveaways. Special photo opportunities with Dr. Met, the official mascot of the New York Mets baseball team. FREE admission to NYSCI between 10-11 AM.

Last year, activities were presented by 240 volunteers and engaged more than 1,000 community youth and parents. Participants included some of the New York's most prestigious colleges, universities and industries.

The New York Section needs your help to make this year's National Chemistry Week (NCW) Celebration another success! If you and your organization are interested in participating in or sponsoring an activity table at the event, please contact Dr. Ping Furlan ([furlanp@usmma.edu](mailto:furlanp@usmma.edu)), Dr. Zhaohua Dai ([zdai@pace.edu](mailto:zdai@pace.edu)), or Mrs. Erin Wasserman (illustrated poem contest coordinator, [ewasserman602z@gmail.com](mailto:ewasserman602z@gmail.com)).

Volunteers' parking at NYSCI is FREE.

**Date:** Sunday, October 18, 2015

Times: 11:00 AM – 4:00 PM

Place: New York Hall of Science (NYSCI)  
Flushing, Queens

For more information about the NCW celebration in New York, visit the New York Section's website at

[http://www.newyorkacs.org/meetings/NCW/2015\\_ncw.php](http://www.newyorkacs.org/meetings/NCW/2015_ncw.php).

You can also find additional information about NCW on the American Chemical Society's website at <http://www.acs.org/content/acs/en/education/outreach/ncw/about.html>.

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**HUDSON-BERGEN CHEMICAL SOCIETY — JOINT MEETING WITH THE SCHOOL OF NATURAL SCIENCES OF FAIRLEIGH - DICKINSON UNIVERSITY**

*In celebration of NATIONAL CHEMISTRY WEEK, you are Invitee to the lecture*

**Transition Metal Catalyzed Functionalization of Alkynes and its Applications**

*Speaker:* Dr. Yalan Xing  
William Paterson University  
of New Jersey

Regioselective functionalization of carbon-carbon multiple bonds is of prime importance for the synthesis of variety of organic compounds including bio-active molecules. The first row nontoxic and inexpensive transition metal iron (III) was used to catalyze the formation of  $\alpha,\alpha$ -dihalodimethyl ketals from terminal alkynes with excellent yield and regioselectivity. It was discovered that alkynes can be selectively functionalized to  $\alpha,\alpha$ -dihaloketones or  $\alpha$ -haloketones by employing different solvents and workup procedures. The power of the diverse functionalization of alkynes is that it opens a door between alkyne chemistry and carbonyl chemistry, and these multicomponent, tandem approaches allow efficient access to structurally interesting and bioactive agents. By studying the structure-activity relationship, the most potent small organic molecules with drug properties could be accessed rapidly.

Dr. Yalan Xing joined the Chemistry Department of William Paterson University as an Assistant Professor in Fall 2014 after completing her postdoctoral training in Professor Yoshito Kishi's group at Harvard University. Before that, she obtained her Ph.D. at West Virginia University in organic chemistry under the guidance of Professor George O'Doherty. Her graduate and postdoctoral research focused on studies of complex bioactive natural products (their total synthesis, structure elucidation, and use in disease diagnosis). At William Paterson University, she conducts research in developing novel synthetic methodologies to provide unique access to bioactive small molecule agents and ultimately address the increasing need for them in biomedical research, particularly cancer research. Dr. Xing is especially interested in inventing the next generation synthetic methodologies

which display improved efficiencies and are atom economical. She plans to use these methods to prepare natural products, pharmaceutical agents and their analogs, and conduct the medicinal chemistry SAR study.

**Date:** Thursday, October 22, 2015

**Times:** Refreshments 5:00 PM

Lecture 5:30 PM

**Place:** Dickinson Hall Room 4468

Fairleigh Dickinson University

Teaneck, NJ

**Cost:** Free.

Reservations required: Dr. Mihaela Leonida  
(201) 692-2338, e-mail:

[mleonida@fdu.edu](mailto:mleonida@fdu.edu), by October. 19, 2015.



**BIOCHEMICAL TOPICAL GROUP — JOINT MEETING WITH THE NY ACADEMY OF SCIENCES BIOCHEMICAL PHARMACOLOGY DISCUSSION GROUP**

**Phenotypic and Biomarker-Based Drug Discovery**

*Organizers:* Michael Foley, PhD  
Tri-Institutional Therapeutics  
Discovery Institute

Ralph Garippa, PhD  
Memorial Sloan Kettering  
Cancer Center

David Mark, PhD  
Hoffmann-La Roche

Lorenz Mayr, PhD  
Astra Zeneca

John Moffat, PhD  
Genentech

Marco Prunotto, PhD  
Hoffmann-La Roche

Sonya Dougal, PhD  
The New York Academy of  
Sciences

*Speakers:* Andras J. Bauer, PhD, PharmD  
Boehringer Ingelheim USA

Alex Huang, PhD  
Genentech

Michael Jackson, PhD  
Sanford-Burnham Medical  
Research Institute

Bryan Laffitte, PhD  
Genomics Institute of the  
Novartis Research Foundation

Jonathan A. Lee, PhD  
Eli Lilly

Lorenz Mayr, PhD  
AstraZeneca

Friedrich Metzger, PhD  
F. Hoffmann-La Roche Ltd.

Bruce A. Posner, PhD  
University of Texas  
Southwestern Medical Center

Aravind Subramanian, PhD  
Broad Institute

Giulio Superti-Furga, PhD  
Austrian Academy of Sciences

Sue Swalley, PhD  
Novartis Institutes for  
BioMedical Research

This symposium aims to deepen the level of scientific understanding behind phenotypic drug discovery and to foster the exchange of ideas between industry and academic research scientists. In this symposium, we will explore current strategies enabling phenotypic drug discovery to become more mainstream. We will discuss the ability of stem cell-based and -omics technologies to create highly relevant disease model systems in vitro. We will also discuss successful approaches to effectively identify specific targets to the effectors discovered using this strategy. Specific case studies will highlight notable successes in this approach.

**Date:** Tuesday, October 27, 2015

**Time:** 8:00 AM – 5:00 PM (reception to follow)

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

**Cost:** This event has reduced-rate registration for ACS and NYAS members, at \$30 or \$15 (for students and post-docs). Please select the appropriate non-member Registration Category and use the Priority Code ACS. Non-members may attend for a fee of \$85 (corporate), \$65 (non-profit or academic) or \$45 (students and post-docs).

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

[www.nyas.org/PhenotypicDrug](http://www.nyas.org/PhenotypicDrug).

To become a Member of the Academy, visit [www.nyas.org/benefits](http://www.nyas.org/benefits).

## 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](mailto:hessytaft@hotmail.com).

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



## LONG ISLAND SUBSECTION

### Semiconductor Nanostructures for High Efficiency Artificial Photosynthesis

*Speaker:* Mingzhao Liu, PhD  
Center for Functional  
Nanomaterials  
Brookhaven National Laboratory

Driven by a strong desire for clean and renewable fuel, effective methods of Hydrogen (H<sub>2</sub>) production have been sought after for a long time. Solar water splitting within a photoelectrochemical (PEC) cell, also known as artificial photosynthesis, has been the most promising method since 1972, when Fujishima and Honda discovered the photolysis of water over a TiO<sub>2</sub> electrode under UV radiation. To date the key problem remains how to maximize the solar-to-fuel conversion efficiency using low-cost, earth abundant materials. The seminar will be based on our recent work on using nanostructured semiconductor photocatalysts for high efficiency water splitting, with particular emphasis on the core/shell structures, in which one can optimize the bulk light absorption and interfacial carrier transfer processes independently. The talk will also cover our newly developed time-resolved spectroscopic techniques for operando studies of nanostructured photocatalyst at well controlled PEC conditions, which enables us to directly assess the car-

(continued on page 10)

## LONG ISLAND SUBSECTION

(continued from page 9)

rier dynamics during solar water splitting at unprecedented ultrafast picosecond timescale.

**Date:** Thursday, November 5, 2015

Times: Social – 5:30 PM  
Seminar – 6:00 PM

Place: CUNY Queensborough  
Community College  
Science Building, S-112

Directions: <http://www.qcc.cuny.edu/about/driving.html>



## NEW YORK NANOSCIENCE DISCUSSION GROUP

### 2015-2016 Sessions

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.

#### Mark Your Calendars:

**Dates:** Tuesday, November 10, 2015

Tuesday, February 2, 2016

Tuesday, April 19, 2016

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](mailto:james.canary@nyu.edu))

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

## WESTCHESTER CHEMICAL SOCIETY

### FUTURE MEETINGS

#### Special Seminar – “Hydrogen Bonding in Redox and Nanoparticle Construction”

*Speaker:* Marc A. Walters, PhD  
Department of Chemistry  
New York University  
New York, NY

Early nanoparticles for MRI angiography were constructed of silver or gold nanoparticles that supported active functional groups on their surface. Today nanoparticles for MRI and diverse biomedical applications and materials are constructed largely of non-metallic inorganic matrices, organic polymers, and gels. This talk will describe the formation and characterization of nanocapsules and gels in reverse micelles that form with the use of hydrogen bonding cationic surfactants that are paired with anionic monomers. The monomers are polymerized to form hyperbranched nanopolymers within the reverse micelle compartment. The resulting hyperbranched structures are uniform and stable under ambient conditions. They are cost effective to produce and suitable for numerous applications where the aim is the transport, slow release, or protection of molecules in the capsule or gel interior. This class of nanoparticle is synthetically accessible to non-specialists and can therefore serve to expand nanoscience in unique new directions.

Marc A. Walters is a graduate of City College (City University of New York). He earned his PhD in Chemistry from Princeton University and followed this with an NIH Postdoctoral Fellowship at the Massachusetts Institute of Technology. Since then he has been a professor in the Chemistry Department of New York University. He also did a one-year stint as an associate professor at the Université de Toulouse. He has been chair of the NY Section of ACS and currently chairs its Government Affairs Committee.

**Date:** Wednesday, November 11, 2015

Times, Place, Cost and Further Information:  
See information under October meeting on page 6.

\*\*\*\*

#### Special Seminar – “Making Green by Being Green – Life Cycle Assessment”

*Speaker:* Joseph C. Bush, PhD  
Associate Director  
The Center for Sustainable Energy  
The City University of New York  
Bronx Community College

The concept of Sustainability has its roots in many ancient cultures but over the last century was largely swept under the rug by consumer-led free market forces. However, intelligent investors never let go of the idea – they are always on the lookout for sustainable growth. As the energy and resource demands from developing nations continue to grow, and commodity prices fluctuate, the concept of sustainability is increasingly being integrated in all levels of corporate function. In this talk I will present examples of a process called *Life Cycle Assessment*, which seeks to quantify sustainability and is being incorporated in the decision making process of businesses of all sizes.

In 2005 Dr. Bush obtained his B.S in Chemistry from the Worcester Polytechnic Institute where he studied the- synthesis, purification and structural analysis of organic polydentate, metal chelating ligand molecules to bind divalent metal ions, creating low-density crystal structures. He went on to obtain his Ph.D. in Physical Chemistry in 2010 from Brown University where he studied Rydberg Fingerprint Spectroscopy using femtosecond pump-probe photoelectron spectroscopy on Rydberg states of biomolecular model systems. He continued at Brown as a postdoctoral research associate in the Physics Department where he designed and built a prototype system interfacing custom chip-based nano-pore materials with third party radio frequency mass filters for label-free, bio-polymer sequencing. For this work, he was the project lead for CAD design, nano-structure fabrication and optimization, computer-based simulation, and experimental implementation. During this time, he also was a consultant to Brown's Technology Venture Office, which markets intellectual property for external licensing. Since 2013, Dr. Bush has been the associate director for Bronx Community College's Center for Sustainable Energy. The Center builds bridges between academic departments, industry partners, and government agencies.

**Date: Wednesday, December 9, 2015**  
Times, Place, Cost and Further Information:  
*See information under October meeting on page 6.*

\*\*\*\*

**Special Seminar – “Isolation and Characterization of Hyaluronan from Tissue Samples”**

*Speaker:* Han Yuan, PhD  
Polytechnic School of  
Engineering of New York  
University  
Brooklyn, NY

Abstract and CV will be supplied in a later issue.

**Tentative Date: Early February, 2016**  
Times, Place, Cost and Further Information:  
*See information under October meeting on page 6.*



**ROTARY CLUB OF  
JERSEY CITY**

**“Service Above Self”**

**Honorees Selected for Legacy of Service Dinner**

At its third Legacy of Service dinner this fall, the Jersey City Rotary Foundation will honor five people whom it believes exemplify Rotary's Five Avenues of Service.

The honorees are:

**Service to Rotary –**

Dr. Howard Parish  
Chairman, United Way of Hudson County

**Service to Community –**

Mary Jo Trusso-Sabbers  
Jersey City Public Schools Administrator

**Service to Vocations –**

Dr. Eugene J. Cornacchia  
President, Saint Peter's University

**Service to Youth –**

Veronica Park  
Chairwoman, Jersey City Youth Foundation

**International Service –**

**Dr. Rolande R. Hodel**  
**President, AIDSfreeAFRICA,**  
**Co-chair, Westchester Chemical Society**



**International Service – Dr. Rolande R. Hodel, President, AIDSfreeAFRICA**

*(Photo courtesy of Rotary Club of Briarcliff Manor)*

**PROFESSOR STEPHEN L. BUCHWALD OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY IS THE WILLIAM H. NICHOLS MEDALIST FOR 2016**



**Prof. Stephen L. Buchwald**

The New York Section is pleased to announce that the Nichols Award Jury has chosen Prof. Stephen L. Buchwald to be the William H. Nichols Medalist for 2016. Dr. Buchwald is being honored for "landmark contributions in organometallic chemistry, ligand design, and catalysis."

The Nichols Distinguished Symposium and Medal Award Dinner will be held on Friday, March 4, 2016 at the Crowne Plaza Hotel, 66 Hale Avenue, White Plains, NY. The symposium is titled "The Development and Applications of Modern Methods in Organic Synthesis" and will feature four internationally known chemists. They are Dr. Joel Barrish of Bristol-Myers Squibb, Prof. Christina White of the University of Illinois, Prof. Timothy F. Jamison of the Massachusetts Institute of Technology, and Prof. Buchwald, Nichols Medalist. Prof. David MacMillan of Princeton University will introduce Prof. Buchwald at the award dinner.

Prof. Brian R. Gibney of Brooklyn College – The City University of New York, Chair-elect of the New York Section in 2016, will conduct the Distinguished Symposium, and Prof. Alison G. Hyslop of St. John's University, Chair of the New York Section in 2016, will host the Medal Award Banquet and will present the Nichols Gold Medal Award to Prof. Buchwald at the dinner.

The entire program and reservation form will appear in the January, February and March Indicators and on the New York Section website at <http://www.NewYorkACS.org>

**NEW YORK SECTION — MIDDLE ATLANTIC REGIONAL MEETING 2016**

**Chemistry: Past, Present, and Future  
New York – A Chemistry State of Mind**

*Sponsored by:* New York Section of the American Chemical Society

The 44th Middle Atlantic Regional Meeting (MARM 2016) of the American Chemical Society (ACS) will be hosted by the New York Section of the ACS and held at the College of Mount Saint Vincent in Riverdale New York from Thursday, June 9 to Sunday, June 12, 2016. MARM 2016 coincides with the 125th Anniversary of the American Chemical Society – NY Section.

For information regarding MARM 2016, please visit: <http://www.marmacs.org/2016>

- Questions regarding the event should be directed to the MARM 2016 General Co-Chairs:  
Pamela Kerrigan: [pamela.kerrigan@mountsaintvincent.edu](mailto:pamela.kerrigan@mountsaintvincent.edu)  
Daniel Amarante: [daniel.amarante@mountsaintvincent.edu](mailto:daniel.amarante@mountsaintvincent.edu)
- Interested speakers or individuals seeking to become Session Chairs should contact the MARM 2016 Program Co-Chairs:  
Paris Svoronos: [PSvoronos@qcc.cuny.edu](mailto:PSvoronos@qcc.cuny.edu)  
Sujun Wei: [SWei@qcc.cuny.edu](mailto:SWei@qcc.cuny.edu)

For a current list of sessions visit: <http://www.marmacs.org/2016/program.html>

- Potential exhibitors and sponsors may contact the MARM 2016 Exhibits and Sponsorship Co-Chairs:  
Fitzgerald Bramwell: [jerry@empirescience.com](mailto:jerry@empirescience.com)  
Ping Furlan: [furlanp@usmma.edu](mailto:furlanp@usmma.edu)  
Urszula Golebiewska: [UGolebiewska@qcc.cuny.edu](mailto:UGolebiewska@qcc.cuny.edu)

**Dates: Thursday-Sunday,  
June 9-12, 2016**

**Place:** College of Mount Saint Vincent  
Riverdale, NY

**See Call for Volunteers on page 18 and more extensive information on the next two pages.**

## MIDDLE ATLANTIC REGIONAL MEETING 2016

## New York—A Chemistry State of Mind

## SPONSORSHIP AND EXHIBIT OPPORTUNITIES

COLLEGE OF MOUNT SAINT VINCENT, RIVERDALE, NY | JUNE 9-12, 2016

## Sponsor Categories

	Diamond Sponsor	Platinum Sponsor	Gold Sponsor	Silver Sponsor	Bronze Sponsor	Donor In Kind
Fee	\$3,000- \$10,000	\$2,000- \$2,999	\$1,000- \$1,999	\$500- \$999	\$250- \$499	Any
Sponsorship*	Session/Event /General	Session/Event /General	Session/Event /General	Session/Event /General	General	NA
Table at Expo	Yes	No	No	No	No	NA
Signage	All	All	Event Placard	Event Placard	No	NA
Meeting Program	Cover	Full Page	1/2 Page	1/4 Page	Logo	Appreciation
Website Logo/link	Yes	Yes	Yes	Yes	Yes	Appreciation
Email blasts	Logo	Logo	No	No	No	NA
Certificate	Diamond	Platinum	Gold	Silver	Bronze	Appreciation
Registration	4	2	2	1	1	NA

\* Events include but are not limited to workshops, luncheons, social events, coffee breaks, and raffle. Full payment by April 15, 2016 to ensure full benefits.

## Exhibit Categories

Entity	Size (feet)	Cost*		Included
		Early	Regular	
Commercial	8x10	\$800	\$1000	Power, 6-ft rectangular table, two chairs, two registrations, meeting attendee contact info, logo on website & program
Commercial	8x10	\$500	\$700	6-ft rectangular table, two chairs, two registrations, meeting attendee contact info, logo on website & program
Academic	8x10	\$350	\$450	6-ft rectangular table, two chairs, one registration, logo on website & program
Academic	Shared 8x10	\$150	\$200	½ 6-ft rectangular table, one chair, logo on website & program
Unattended	8x10	\$275	\$350	6-ft rectangular table, meeting attendee contact info, logo on website & program
Unattended	Shared 8x10	\$175	\$225	½ 6-ft rectangular table, meeting attendee contact info, logo on website & program

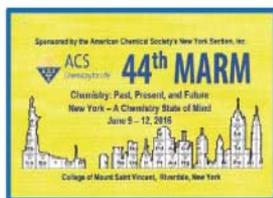
\*Early Bird by March 1, 2016; full payment by April 15, 2016 to ensure full benefits; reduced price for combined registration with 2016 NERM is available (please call for information).

## Advertisement

Categories*	Cost
Program ½ page with web logolink	\$500
Program ¼ page with web logolink	\$300
Program business card with web logolink	\$125
web logolink	\$45

\* Full payment by April 15, 2016 to be included in the Program. Call for prices for other options





American Chemical Society's New York Section, Inc.  
Middle Atlantic Regional Meeting 2016  
<http://marmacs.org/2016/>

### Exhibits/Sponsorship Chairs

**Ping Furlan**  
(516) 726-5783  
[pfurlan@usmma.edu](mailto:pfurlan@usmma.edu)

**Urszula Golebiewska**  
(631) 252-2106  
[UGolebiewska@qcc.cuny.edu](mailto:UGolebiewska@qcc.cuny.edu)

**Fitzgerald Bramwell**  
(859) 338-7591  
[jerry@empirescience.com](mailto:jerry@empirescience.com)

### General Chairs

**Pamela Kerrigan**  
[Pamela.kerrigan@Mountsaintvincent.edu](mailto:Pamela.kerrigan@Mountsaintvincent.edu)

**Daniel Amarante**  
[Daniel.amarante@Mountsaintvincent.edu](mailto:Daniel.amarante@Mountsaintvincent.edu)

### Program Chairs

**Paris Svoronos**  
[PSvoronos@qcc.cuny.edu](mailto:PSvoronos@qcc.cuny.edu)

**Sujun Wei**  
[SWei@qcc.cuny.edu](mailto:SWei@qcc.cuny.edu)

### Treasurer

**Frank Romano**  
[frank.romano@agilent.com](mailto:frank.romano@agilent.com)

### Secretary

**Marlon Moreno**  
[MMoreno@qcc.cuny.edu](mailto:MMoreno@qcc.cuny.edu)

### Awards

**Michael Castaldi**  
[mcastaldi@saintpeters.edu](mailto:mcastaldi@saintpeters.edu)

### MARM Executive

**Board Contact**  
**Martha Hollomon**  
[Martha.Hollomon@comcast.net](mailto:Martha.Hollomon@comcast.net)

### Website

**Paul Sideris**  
[PSideris@qcc.cuny.edu](mailto:PSideris@qcc.cuny.edu)

**Paul Tukey**  
[paul@tukey.org](mailto:paul@tukey.org)

**ACS Meeting  
Planning Partner**  
**Kimberly Savage**  
[K\\_Savage@acs.org](mailto:K_Savage@acs.org)

Dear Potential Exhibitor/Sponsor:

We invite your organization to take advantage of the many benefits of MARM 2016 as an Early Bird sponsor. There is the opportunity to connect with 30,000 chemists, biochemists and science educators in the Middle Atlantic Region (Washington DC to New York and of course all points in between). At MARM 2016, we anticipate 1,000 attendees from area industry, government labs, colleges and universities, public schools, and clinical labs. (Indeed, you are invited to review our program information at our website, <http://www.marmacs.org/>) MARM 2016 will run at the College of Mount Saint Vincent in Riverdale, NY on Thursday, June 9 through Sunday, June 12, 2016.

Your investment in the MARM 2016 Exposition as an Early Bird sponsor will maximize with attendees: either decision makers or prospective workforce employees. Among the incentives offered to Early Bird sponsors are:

- a special discount on exhibition space;
- targeted break (networking) sessions with industrial or academic decision makers;
- access to approved data bases for students; access to approved data bases for decision makers.

Here are some additional aspects of our plan that will assure the success and economy of your sponsorship:

- Early bird sponsors can rent exhibit space with or without power at a **significantly reduced rate.**
- Exhibit spaces available for Early Bird sponsors will be located in high traffic areas and include:
  - Standard power (120 V) is available along the walls.
  - 8 x 10-ft space including a 6-ft rectangular table, two chairs, and a trashcan.
  - No cost wireless internet access available throughout the College of Mount Saint Vincent.
- Complimentary registration fees.
- BBQ, Raffle Draw, and sponsored Coffee Breaks that target potential workforce employees, or decision makers will be set up in the exhibit areas.
- Complimentary hot link posting to your company on the MARM 2016 website.

MARM conference registration will be set up in the exhibit areas. Exhibit areas are located near the technical sessions and with the poster sessions. **Register before March 1, 2016 to take advantage of the Early Bird Rates, and register by April 15, 2016 to ensure full benefits.** Exhibit space is limited and spots will be reserved on a first come basis. In addition to benefiting your organization, your participation will help make this the best MARM meeting ever!

If you have any questions, please feel free to contact us.

Sincerely,

*Fitzgerald B. Bramwell*

*Urszula Golebiewska*

*Ping B. Furlan*

Dr. Fitzgerald Bramwell  
859 338-7591  
[jerry@empirescience.com](mailto:jerry@empirescience.com)

Dr. Urszula Golebiewska  
631 252-2106  
[UGolebiewska@qcc.cuny.edu](mailto:UGolebiewska@qcc.cuny.edu)

Dr. Ping Furlan  
516 726-5783  
[furlanp@usmma.edu](mailto:furlanp@usmma.edu)

## North Jersey Meetings

<http://www.njacs.org>

### NORTH JERSEY EXECUTIVE COMMITTEE MEETING

Section officers, councilors, committee chairs, topical group chairs, and section event organizers meet regularly at the Executive Committee Meeting to discuss topics of importance to running the section and representing the membership. All ACS members are welcome to attend this meeting and to become more involved in section activities.

**Date:** Monday, October 19, 2015

Times: Dinner 6:15 PM

Executive Meeting 7:00 PM

**Place:** Rutgers University  
Center for Advanced  
Biotechnology and Medicine  
679 Hoes Lane West  
Piscataway, NJ

For reservations please call (732) 463-7271 or email [chemphun@gmail.com](mailto:chemphun@gmail.com) prior to **Wednesday, October 14, 2015**.

Dinner cost is payable at the door; however, if you are not able to attend and did not cancel your reservation, you are responsible for the price of your dinner.



### CAREERS IN TRANSITION MEETINGS

#### Job Hunting??

Resume & LinkedIn writing and key word search rules are changing. To be found, come and utilize our latest insights. Our ACS trained Career Consultants offer assistance at Students2Science to help members with their job search on the second Monday of each month. Topics at this free workshop are:

- Techniques to enhance resume effectiveness
- Interview practice along with responding to difficult questions
- Networking to find hidden jobs
- Planning a more effective job search

**Date:** Monday, October 12, 2015

New from now on is a second CIT meeting in East Windsor on the third Monday. Contact Bill for details.

Times: Meeting 2:30 - 5:00 PM

Place: Students 2 Science, Inc.  
66 Deforest Avenue  
East Hanover, NJ

Cost: No charge

Reservations: at [www.njacs.org/careers.html](http://www.njacs.org/careers.html)

A job board and networking assistance is offered at most topical group meetings. Appointments with Bill can be arranged for personal assistance at (908) 875-9069 or [billsuits@earthlink.net](mailto:billsuits@earthlink.net).

See [www.njacs.org](http://www.njacs.org) under the Career tab for Jobs hidden from sight and relevant blogs.

## Rutgers University Newark

Spring 2016 Graduate Courses  
511 Advanced Organic Chemistry

Dr. Galoppini; Thursday 6:00-8:50 pm  
529 Special Topics in Physical Chemistry:  
Vibrational Spectroscopy and Imaging

Dr. Mendelsohn; Monday 6:00-8:50 pm  
587 Topics in Biochemistry:  
Application of Enzymes to Synthesis

Dr. Jordan; Tuesday 6:00-8:50 pm

To apply to our Masters or PhD program please see information at  
<http://chemistry.rutgers.edu/grad/admissions-info>.

Up to 2 graduate courses can be taken on a non-degree basis.

For more information, see

<http://chemistry.rutgers.edu/grad/graduate-prog>  
or contact

Ms. McClendon at  
[mcclendn@andromeda.rutgers.edu](mailto:mcclendn@andromeda.rutgers.edu)

(Ph: 973-353-5173)

## **NJACS PARTNERS WITH STUDENTS2SCIENCE**

Members are encouraged to volunteer at their East Hanover facility and explore their website at [www.students2science.org](http://www.students2science.org) to learn more about this innovative program.

S2S continues to expand their exciting laboratory experience the disadvantaged children. Many of our members continue to volunteer as mentors. At their 2 million dollar analytical lab, every 40 kids are assisted by 16 professional volunteer mentors. The experiments performed really make chemistry and science come alive using state of the art analytical equipment working with students starting in 6th grade up to HS seniors. Each day is optimized for grade level and curriculum.

Now the program has further expanded with internet video and experiments performed in the classroom for 4th & 5th grades. Internet allows views of the lab in operation and relates to simpler experiments setups done in the classroom with their teacher and a partnering chemist.

North Jersey members who volunteered benefited in many ways. Those in transition expanded their network and received job finding assistance. Retired chemists met up with old friends and made many new friends. Those with jobs used the volunteer hours as part of the company outreach programs and team training. All feel great about making a difference in the lives of the youth who may have never met a scientist or considered a career in the sciences.

Please consider volunteering and discovering more about this innovative program. If you want to learn more, you can speak with Don Truss at (908) 334-8435.



## **NORTH JERSEY DRUG METABOLISM DISCUSSION GROUP**

**Fall Meeting: "Strategies to Predict and Reduce Drug Interactions and Toxicities"**

*Chair:* Lauren Aleksunes  
Rutgers University

Five dynamic speakers from industry and academia have been selected to present their work.

### **"Identifying Strategies to Prevent Antiretroviral Drug-induced Toxicities"**

*Speaker:* Namandje Bumpus  
Johns Hopkins School  
of Medicine

### **"Targeted Pharmacological Control of the Microbiome to Improve Human Health"**

*Speaker:* Matthew Redinbo  
University of North Carolina  
at Chapel Hill

### **"Toxicity Prediction and Development of Pharmacogenetic Co-Diagnostics Using Diversity Outbred Mice"**

*Speaker:* Alison Harrill  
University of Arkansas  
for Medical Sciences

### **"Renal Drug Interactions: Progress and Challenges in Making Predictions in a Complex System"**

*Speaker:* Adrian Ray  
Gilead Sciences

### **"Cynomolgus Monkey as a Potential Model to Assess Drug Interactions involving Hepatic OATP Transporters: In Vitro, In Vivo, and In Vitro-to-In Vivo Extrapolation"**

*Speaker:* Hong Shen  
Bristol-Myers Squibb

**Date:** Thursday, October 15, 2015

**Time:** 8:00 AM - 3:45 PM

**Place:** The Palace at Somerset Park  
333 Davidson Avenue  
Somerset, NJ

<http://palacesomersetpark.com>

**Cost:** Pre-registration is \$125 and \$150 at the door. Students and post-docs are charged \$10, and faculty are charged \$50. Registration is free for unemployed.

For more information about the meeting or to learn more about the Discussion Group, please check out the Group's website <http://www.njacs.org/topical-groups/drug-metabolism> or email [aleksunes@eohsi.rutgers.edu](mailto:aleksunes@eohsi.rutgers.edu).

**ChemExpo 2015**  
at Liberty Science Center

  
National  
Chemistry  
Week

Saturday, October 17th, 2015  
10 a.m. - 2 p.m.



**"CHEMISTRY COLORS OUR WORLD"**

Join us for a fun-filled day  
of hands-on science activities presented by area chemists,  
college and high school chemistry teachers and students.

Visit Liberty Science Center  
and enjoy this additional family-friendly event for all ages  
included with general admission to the Center

**Coordinated by**  
North Jersey Section of the American Chemical Society

  
ACS  
Chemistry for Life™

For further information go to [www.njacs.org](http://www.njacs.org)  
or email [mitchakal@gmail.com](mailto:mitchakal@gmail.com); [monicaschabram@njacs.org](mailto:monicaschabram@njacs.org)



## MASS SPECTROMETRY DISCUSSION GROUP

**Date:** Tuesday, October 20, 2015

Times: Social 5:30 PM

Dinner 6:15 PM

Presentations 7:00 PM

Place: Holiday Inn

195 Davidson Avenue  
Somerset, NJ



## NMR TOPICAL GROUP — JOINT MEETING WITH PRINCETON ACS SECTION

4th Annual NMR Symposium

**Topics and speakers:**

*Speaker:* Mei Hong

Institution: Massachusetts Institute of  
Technology

**Topic:** Solid-state NMR of Membrane  
Proteins

*Speaker:* Robert Powers

Institution: University of Nebraska - Lincoln

**Topic:** Metabolomics

*Speaker:* Hashim Al-Hashimi

Institution: Duke University

**Topic:** RNA and DNA Dynamics

*Speaker:* Kevin Gardner  
Institution: City University of New York  
**Topic:** Protein-protein Interactions

*Speaker:* Mark McCoy  
Institution: Merck Research Labs  
**Topic:** Structure-based Drug Discovery

*Speaker:* Peter Caravan  
Institution: MGH/Harvard, Boston  
**Topic:** Imaging Probes

More details and registration will be available in mid September: <http://www.njacs.org/nmr-spectroscopy-topical-group>

**We are very grateful to our sponsors:**

Bristol-Myers Squibb

Bruker BioSpin

JEOL

Dr. Luciano Müller

Cambridge Isotope Laboratories

Sigma-Aldrich/Isotec

Wilmad-LabGlass

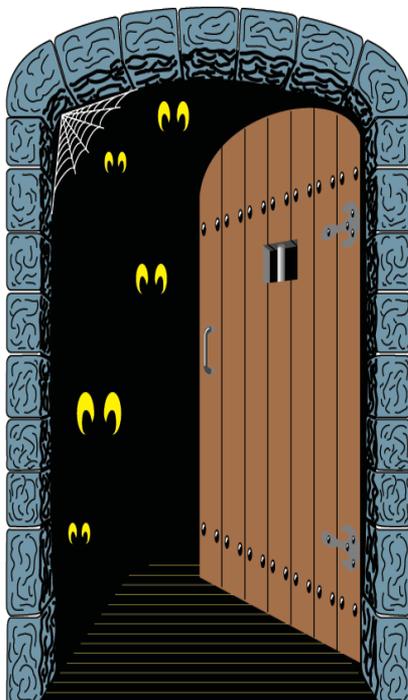
New Era Enterprises

Suraj Manrao Science Fund

Mestrelab Research

ACD/Labs

Magritek



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## Call for Applications

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### FREDDIE AND ADA BROWN AWARD

This Award recognizes and encourages high achieving middle- and high-school students, of African American and Native American heritage, to further develop their academic skills, with views on careers in the chemical sciences

#### Award Amounts

Middle School \$100.00 Check and \$50.00 gift certificate : High School \$200.00 Check and \$100.00 gift certificate

#### Who is Eligible

Middle School students enrolled in a science class : High School students who have completed a chemistry course

#### Grades

Middle School B Average or better in Science, B Average overall : High School B Average in Chemistry, B Average overall

#### Letter of Recommendation

Math or Science/Chemistry Teachers or Guidance Counselor

#### Statement

Middle School "Why I Like Science" : High School "Why I Like Chemistry"

#### Selection Criteria

Applicants must be African American (Black) or Native American (including Pacific Islander) or of mixed race.

#### Transcript

Official transcript required.

#### Financial Need

Not Required.

Applications available on the web: [www.njacs.org/freddieadabrown](http://www.njacs.org/freddieadabrown)

or from your school guidance office.

#### Return Application To

Freddie and Ada Brown Award, NJACS Section Office, 49 Pippen Way, Morristown, NJ 07960

#### Due Date

Completed Applications must be post-marked no later than **March 31 Annually**

**Questions:** Contact Jeannette Brown [Jebrown@infionline.net](mailto:Jebrown@infionline.net) or (908) 239-1515

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## Call for Volunteers

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### MARM 2016

The New York Section will be hosting MARM 2016, June 9-12, 2016 at the College of Mount Saint Vincent, Riverdale, NY 10471. The section will be celebrating its 125th Anniversary during its event. The theme has yet to be determined. The General Chairs for this meeting are Dr. Pamela Kerrigan and Dr. Daniel Amarante from the College of Mount Saint Vincent's Division of Natural Sciences. To volunteer in planning and/or for further information, please contact them at the following emails:

[Pamela.kerrigan@mountsaintvincent.edu](mailto:Pamela.kerrigan@mountsaintvincent.edu)  
or

[Daniel.amarante@mountsaintvincent.edu](mailto:Daniel.amarante@mountsaintvincent.edu)



## Micron Analytical Services

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**3815 Lancaster Pike Wilmington DE, 19805  
E-Mail [micronanalytical@compuserve.com](mailto:micronanalytical@compuserve.com)**

**Voice 302-998-1184, Fax 302-998-1836  
Web Page: [www.micronanalytical.com](http://www.micronanalytical.com)**

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## Call for Sponsorship

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### **ChemExpo 2015** **Saturday, October 17, 2015** **Call for Sponsorship**

On Saturday October 17th, the North Jersey Section of ACS will be holding its 21<sup>st</sup> ChemExpo in celebration of NCW (National Chemistry Week) at Liberty Science Center, Newark, New Jersey. Please help us make a difference! The theme for this year is "Chemistry Colors Our World".

We are looking forward to financial support to help cover many of the expenses associated with the Section's NCW activities. A donation of \$500.00 indicates Gold Sponsorship, a \$250.00 gift indicates Silver Sponsorship and a \$100.00 gift indicates a Bronze Sponsorship. We would appreciate it if you would forward this information to the appropriate representatives within your company.

Checks should be made out to:

"NJACS" (The North Jersey Section of American Chemical Society)  
with a memo of "NCW".

Sent to:

Jacqueline Erickson  
33 Ronald Road  
Lake Hiawatha, NJ, 07034-1121.

Thanks very much for all of your help. The Section is most appreciative of your efforts.

Mita Chaki and Monica Sekharan

# North Jersey NCW Poetry Contest



National Chemistry Week (NCW) 2015  
"Chemistry Colors Our World"

## ILLUSTRATED POEM CONTEST ENTRY FORM

Please fill out this form, print, and attach to the back of the poems. All fields are required. Incomplete forms will invalidate the entry. The receipt deadline for the **North Jersey Section** Contest is **Friday, OCTOBER 23, 2015**.

Student's Name			
Grade			
Parent's or Guardian's Name			
<b>School or sponsoring group:</b> <i>(e.g. Boys and Girls Club or Scout Troop, 4-H, etc.)</i>			
Teacher's Name			
Teacher's Email			
School Address			
School Address Line 2			
City	State	Zip	

### Judging Category

K-2 <sup>nd</sup>	<input type="checkbox"/>	3 <sup>rd</sup> -5 <sup>th</sup>	<input type="checkbox"/>	6 <sup>th</sup> - 8 <sup>th</sup>	<input type="checkbox"/>	9 <sup>th</sup> - 12 <sup>th</sup>	<input type="checkbox"/>
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### FOR LOCAL SECTION USE ONLY

Local Section Name (Number)	<b>North Jersey Section</b>
NCW Coordinator Name	Bobbi Gorman
Coordinator Email	rosellerams@yahoo.com

# North Jersey NCW Poster Contest



## National Chemistry Week 2015 Illustrated Poem Contest: "Chemistry Colors Our World"

The **NORTH JERSEY SECTION** of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in Kindergarten - 12th grade. Please hold a competition within your school and **SEND ONLY YOUR TOP 3 WINNERS IN EACH AGE CATEGORY:**

**GRADES K-2                      3-5                      6-8                      9-12**

Contest Deadline: **FRIDAY, OCTOBER 23, 2015**

**Prizes:** Section Winners **1<sup>st</sup> Place \$50, 2<sup>nd</sup> Place \$25, 3<sup>rd</sup> Place \$10**

Teachers will receive a corresponding monetary prize.

**Notification:** Local Section winners will be notified by November 14<sup>th</sup>.

**Mail to:** NJACS Office, Bettyann Howson, 49 Pippins Way, Morris Township, NJ 07960

#1 Winners of the **North Jersey** Illustrated Poem Contest will advance to the ACS National Illustrated Poem Contest! National ACS will award \$300 to first-place and \$150 to second-place National Contest winners in each grade category!

Write and illustrate a poem using the NCW theme, "**Chemistry Colors Our World**". Your poem must be **no more** than 40 words, and in the following styles to be considered:

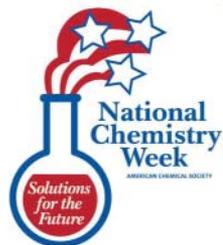
**HAIKU • LIMERICK • ODE • ABC POEM • FREE VERSE • END RHYME • BLANK VERSE**

**Participants are encouraged to explore topics related to:**

- Dyes and pigments
- Absorbed and reflected light
- The chemistry of fireworks
- Natural and artificial colors
- Any other relevant topics

**Entries will be judged based upon:**

- Relevance to and incorporation of the theme
- Word choice and imagery
- Colorful artwork
- Adherence to poem style
- Originality and creativity
- Overall presentation



**Contest Rules:**

- Poems must conform to a particular style. No poem may be longer than 40 words.
- The topic of the poem and the illustration must be related to the NCW 2015 theme, "**Chemistry Colors Our World**".
- All entries must be original works without aid from others.
- Each poem must be submitted and illustrated on an unlined sheet of paper (of any type) not larger than 11" x 14". The illustration must be created by hand using crayons, watercolors, other types of paint,

colored pencils or markers. The text of the poem should be easy to read and may be printed with a computer, before the hand-drawn illustration is added, or the poem may be written on lined paper which is cut out and pasted onto the unlined paper with the illustration.

- Only one entry per student will be accepted.
- All entries must include an entry form.
- All illustrated poems and/or digital representations of the poems become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners' names, likenesses and entries for editorial, advertising and publicity purposes.

American Chemical Society

## Call for Help



### ChemExpo 2015 Saturday, October 17, 2015 Call for Help

On Saturday October 17th, the North Jersey Section of ACS will be holding its 21st ChemExpo in celebration of National Chemistry Week at Liberty Science Center, Jersey City, New Jersey. Please help us make a difference!

The theme for this year is "Chemistry Colors Our World". Join us to make this event a fun-filled day of hands-on science chemistry activities that will engage visitors in exploring the positive impacts of chemistry. The activities should be geared for 6 to 12 year olds. Check out the National Chemistry Week web page at <http://portal.acs.org/> to get some ideas for hands-on activities that you might be interested to present.

To minimize duplication of the presentations, please email us the list of activities that you/your team would like to present preferably by September 15th, 2015. Individuals contacting us first with their idea(s) will be given priority. We would like the students to be able to redo these experiments at home and/or at school so please be thorough in your presentation and explanations.

Thanks very much for all of your help. The Section is most appreciative of your efforts.

Mita Chaki - [mitachaki@gmail.com](mailto:mitachaki@gmail.com)

Monica Sekharan - [monicasekharan@njacs.org](mailto:monicasekharan@njacs.org)

Please fill out the following form and return to Claire Miller at [cmiller07940@yahoo.com](mailto:cmiller07940@yahoo.com)

## Form: Call for Help

Count me in to volunteer at Liberty Science Center, Jersey City, New Jersey.

My name is:

I am volunteering to work on Saturday, Oct. 17<sup>th</sup> (Check appropriate box)

- 10:00am-11:30 am,
- 11:30 am - 2:00 pm,
- 10:00am-2:00pm

I can be reached at: (work phone number)

My complete address is:

I am an employee at:

The activities at my table will be:

I will need additional tables: 2 3 4 5 6 (Circle)

I will be bringing handouts on activities: Yes No (Circle)

I will be joined at my table by the following volunteers.

Last Name:	First Name	Institution:	Contact Information (email)

EMAIL TO: Claire Miller ([cmiller07940@yahoo.com](mailto:cmiller07940@yahoo.com))

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## Call for Nominations

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### 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 [newyorkacs.org](http://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. John B. Sharkey, at [johnbsharkey@me.com](mailto:johnbsharkey@me.com).



### GUSTAVUS JOHN ESSELEN AWARD FOR CHEMISTRY IN THE PUBLIC INTEREST

The Esselen Award for Chemistry in the public interest is a very prestigious honor provided by the Northeastern section of the American Chemical Society. The award annually recognizes a chemist whose scientific and technical work has contributed to the public well-being, and has thereby communicated positive values of the chemical profession. The Awarded should be a living resident of the United States or Canada at the time of nomination, and the significance of th work should have become apparent within the five years preceding nomination.

The Esselen Award has no limitations with respect to the chemical field in which the nominees are active. It differs from many other awards in that it is for chemical activities whose importance to the public has been demonstrated.

The award consists of a medal and a check for \$5,000. Travel expenses incidental to the conferring of this award will be reimbursed. The award is usually presented at the April meeting of the Northeastern Section in Cambridge, Massachusetts. The Awardee will deliver an address on the subject of the work for which the honor is being conferred, or for work in progress which is also directed to chemistry in the public interest. The award address should be at a level where it would be of interest to an audience that does not have knowledge of the specific field.

Nominations shall include: 1) a letter signed by the primary sponsor with a description of the nominee's work recognized as making a major contribution to the public welfare and as communicating positive values of the chemical profession, plus the names of two co-sponsors; 2) short supporting co-sponsor statements; 3) the nominee's professional biography including a list of no more than ten of the nominee's publications selected for their pertinence to the work nominated for recognition; and 4) copies of popular and technical press news or feature articles indicative of public benefit and interest. Inquiries should be directed to Dr. Karl Hansen, c/o Karen Piper, 19 Mill Road, Harvard, MA 01451. All nomination material must be consolidated into a single electronic pdf file and emailed to [karl@amgen.com](mailto:karl@amgen.com) with a copy to [piper281@verizon.net](mailto:piper281@verizon.net). The due date is October 15, 2015. Joint nominations are acceptable. The Committee will review the nominations and the award recipient will be notified by the first of February.





*Help the New York Section of the American Chemical Society to celebrate National Chemistry Week 2015 with the theme*

## ***“Chemistry Colors Our World!”***

- When:** Sunday, October 18, 2015 (11 AM – 4 PM)  
**Where:** [New York Hall of Science \(NYSCI\)](#), Flushing, Queens  
**What:** Over 20 tables of hands-on experiments, activities, demonstrations, and giveaways. Special photo opportunities with Dr. Met, the official mascot of the New York Mets baseball team. FREE admission to NYSCI between 10-11 AM.  
**Who:** Last year, activities were presented by 240 volunteers and engaged more than 1,000 community youth and parents. Participants included some of the New York’s most prestigious colleges, universities and industries.

The New York Section needs your help to make this year’s National Chemistry Week (NCW) Celebration another success! If you and your organization are interested in participating in or sponsoring an activity table at the event, please contact Dr. Ping Furlan ([furlanp@usmma.edu](mailto:furlanp@usmma.edu)), Dr. Zhaohua Dai ([zdai@pace.edu](mailto:zdai@pace.edu)), or Mrs. Erin Wasserman (illustrated poem contest coordinator, [ewasserman602z@gmail.com](mailto:ewasserman602z@gmail.com)). Volunteers’ parking at NYSCI is FREE.

For more information about the NCW celebration in New York, visit the New York Section’s website at [http://www.newyorkacs.org/meetings/NCW/2015\\_ncw.php](http://www.newyorkacs.org/meetings/NCW/2015_ncw.php).

You can also find additional information about NCW on the American Chemical Society’s website at <http://www.acs.org/content/acs/en/education/outreach/ncw/about.html>.



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## Ad Index

### ANALYTICAL

Chemir	26
Micron Inc.	18
New Jersey Institute of Technology	26
NuMega Resonance Labs.	26
Quantex	4
Robertson Microlit Labs	5

### EDUCATION

Rutgers University.	15
---------------------	----

### EQUIPMENT

Eastern Scientific Co.	26
------------------------	----

### GENERAL

ACS-NY/NoJ Sections	7
ACS-NY/NoJ Sections	26
ACS-NY/NoJ Sections	26