

## North Jersey Section's 68th Annual Undergraduate Research Conference



North Jersey Section ACS 68th Annual Undergraduate Research Conference Presenters and Advisors (from left to right) Prof. Christian Traba, Daniel Centeno, Anumeha Muthal, Leanne Mocniac, Theresa Kucinski, Rebecca Ferriera, Prof. Ron Doll, Stephanie Sanchez.

*(Photo courtesy of Tom Krone)*

(See article and more pictures on pages 5-7.)

**PLEASE RECYCLE THIS PAPER**

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

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

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

## THIS MONTH IN CHEMICAL HISTORY

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

My last column introduced a new biography ("Pure Intelligence" by Melvyn C. Usselman) of the 19th. century English scientist William Wollaston. The column covered the early years of Wollaston's career from his birth in 1766 to his University studies at Cambridge, where he met his future collaborator and business partner Smithson Tennant.

Wollaston received his Bachelor of Physic (medicine) degree in 1788, attended London hospitals to learn his trade, moved to a practice in Huntington, and was awarded the M.D. in 1793. His practice was only marginally successful, and he moved to another town in 1793. But Wollaston was not really dedicated to medicine, although the records suggest he was a good doctor. He was elected to both the Royal Society and the Royal College of Physicians, and he maintained, in his abundant free time, his pursuits of botany and natural sciences. He merged his interests in a published study of human calculi including bladder stones and gouty deposits. Wollaston moved to London in 1797 and continued to practice medicine at a steadily declining rate; chemical interests were beginning to occupy him.

In 1800 Wollaston and Smithson Tennant agreed to form a partnership with a view to exploring the chemistry of platinum, and especially to producing substantial amounts of malleable metallic platinum. They began by pooling their financial resources to purchase a substantial amount (6000 ounces) of platina, the crude platinum ore found in South America. Platina had been known for many years, and the metal platinum was a major constituent of the ore. Platina was not fusible by the technology of the time, and many attempts had been made to purify its platinum content. None of these was wholly successful.

Wollaston and Tennant's approach was novel. A brief summary is as follows. After treating platina with aqua regia a solution and a residue were obtained. The key to success was the careful specification of the proportions of hydrochloric and nitric acids in the aqua regia and rigorous purification by recrystallization of salts obtained from the solution. Wollaston worked principally on the aqua regia solution. He was able to prepare pure ammonium hexachloroplatinate. Heating this produced pure platinum powder. Wollaston invented a new technology, powder metallurgy, to make ingots of malleable metallic platinum. This involved heating the platinum powder to red heat while simultaneously compressing it and swaging with a heavy hammer. The resulting ingot could be beaten and rolled into thin sheets or drawn into fine wires.

Along the way Wollaston also isolated two new metals, palladium and rhodium, and Tennant isolated osmium and iridium. The palladium story has some unusual features. Wollaston understood the commercial importance of his platinum work and did not want to reveal his methods prematurely. Instead of announcing the isolation of a new metal in the conventional way in a talk or an article, he had handbills prepared advertising a new noble metal "Palladium, or New Silver" (it was named after the asteroid Pallas) samples of which could be purchased of Mr. Forster of Gerrard Street for five shillings, half a guinea, or one guinea. Scepticism followed. A well-known Irish chemist, Richard Chenevix, purchased and analysed a sample, confirmed the handbill's account of its properties, but claimed that he had shown that the sample was an alloy of platinum and mercury. Wollaston retaliated by publishing an anonymous letter in Nicholson's Journal offering twenty pounds to anyone who could prepare palladium from platinum and mercury "before any three gentlemen chymists you please to name". The reward was never claimed.

Several years later Wollaston openly published his methods. By then he had become a successful manufacturer of platinum. Most of his material went to the making of platinum boilers for concentrating sulfuric acid; liners for the touch-holes of firearms; and laboratory apparatus.

In my next, and final, column on Wollaston I will discuss the wide range of his scientific activities.

**THE INDICATOR****Manager / Editor** - LINDA ATKINS3137 Hemlock Hill Road  
Pocono Pines, PA 18350  
973-981-4383[indicator.linda@gmail.com](mailto:indicator.linda@gmail.com)**Advertising Manager** - VINCENT GALEMBO Services, PO Box 1150  
Marshfield, MA 02050-1150  
781-837-0424[vincegale@mboseervices.net](mailto:vincegale@mboseervices.net)**INDICATOR COMMITTEE****Chair, DR. LES MCQUIRE**17 Crown Drive, Warren, NJ 07059  
908-334-5473[LesMcQuire.org](http://LesMcQuire.org)**New York Section Rep.****DR. NEIL JESPERSEN**Chemistry Dept., St. John's University  
8000 Utopia Parkway, Queens, NY 11439  
718-990-5221[njaspersn@stjohns.edu](mailto:njaspersn@stjohns.edu)**North Jersey Section Rep.****JACQUELINE ERICKSON**GSK, 1500 Littleton Road, Parsippany, NJ 07054  
973-889-2368[jacqueline.a.erickson@gsk.com](mailto:jacqueline.a.erickson@gsk.com)**Web Masters**

NY Section - DR. BRIAN R. GIBNEY

[postmaster@newyorkacs.org](mailto:postmaster@newyorkacs.org)

NoJ Section - PAUL TUKEY

[tukey@verizon.net](mailto:tukey@verizon.net)**NEW YORK SECTION**<http://newyorkacs.org>**Chair, DR. ALISON G. HYSLOP**Department of Chemistry, St. John's University  
8000 Utopia Parkway, Queens, NY 11439  
718-990-6297 • [hyslopa@stjohns.edu](mailto:hyslopa@stjohns.edu)**Chair-Elect, DR. BRIAN R. GIBNEY**Dept. of Chemistry, CUNY, Brooklyn College  
2900 Bedford Avenue, Brooklyn, NY 11210-2889  
917-399-0607 • [brg33@newyorkacs.org](mailto:brg33@newyorkacs.org)**Secretary, DR. JOSEPH M. SERAFIN**Dept. of Chemistry, St. John's University  
8000 Utopia Parkway, Queens, NY 11439  
718-990-5226 • [serafinj@stjohns.edu](mailto:serafinj@stjohns.edu)**Section Office**St. John's University, Chemistry Dept.  
8000 Utopia Parkway, Queens, NY 11439  
516-883-7510; Fax 516-883-4003[njesper1@optonline.net](mailto:njesper1@optonline.net)**NORTH JERSEY SECTION**<http://www.njacs.org>**Chair, DR. LUCIANO MUELLER**Senior Research Fellow, Department of Lead  
Discovery and Optimization, Bristol-Myers Squibb  
Route 206 & Provinceline Rd., Princeton, NJ 08543  
609-252-4360 • [luciano.mueller@bms.com](mailto:luciano.mueller@bms.com)**Chair-Elect, DR. LANDON GREENE**7 Beehive Lane, Flemington, NJ 08822  
734-657-2305 • [Landon8399@yahoo.com](mailto:Landon8399@yahoo.com)**Secretary, BETTYANN HOWSON**49 Pippins Way, Morris Township, NJ 07960  
973-822-2575 • [chemphun@gmail.com](mailto:chemphun@gmail.com)**Section Office**49 Pippins Way, Morris Township, NJ 07960  
973-822-2575 • [chemphun@gmail.com](mailto:chemphun@gmail.com)**THE  
Indicator** The monthly newsletter of the New York & North  
Jersey Sections of the American Chemical  
Society. Published jointly by the two sections.**CONTENTS**

Advertisers' Index	34
Call for Abstracts	29
Call for Applications	28
Call for Help	11
Call for Nominations	28-29
Call for Sponsors	12
Call for Volunteers	31
Grants Available	29-30
MARM 2016	14-17
National	31-32
New York Meetings	14-15
North Jersey 68th Annual URC	cover, 5-7
North Jersey Meetings	8-9
Professional/Product Director	34
Westchester Chemical Society	
Distinguished Scientist Award	22-27

**EDITORIAL DEADLINES**

September	July 28
October	August 28
November	September 28
December	October 28
January 2017	November 28, 2016
February 2017	December 28, 2016
March	January 28, 2017
April	February 28
May	March 28
June	April 28

**Visit Us****[www.TheIndicator.org](http://www.TheIndicator.org)**

*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).

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

## June Calendar

### NEW YORK SECTION

**Thursday, June 2, 2016**

Chemical Marketing & Economics Group  
See page 14 and flyer on page 13.

**Friday, June 17, 2016**

New York Section Board Meeting  
See page 14.

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

MARM 2016  
See pages 14-17.

*also*

**Wednesday, July 13, 2016**

Biochemical Topical Group  
See pages 18-19.

**Fall 2016 Calendar of Events**

Long Island Subsection  
See page 19.

### NORTH JERSEY SECTION

**Wednesday, June 8, 2016**

Minority Affairs Group  
See page 8.

**Monday, June 13, 2016**

Careers in Transition  
See page 8.

*also*

**Tuesday, September 13, 2016**

Mass Spectrometry Discussion Group  
See page 9.

**Monday, September 26, 2016**

North Jersey Section Executive Committee Meeting  
See page 9.

**Saturday, October 22, 2016**

ChemExpo  
See pages 10-12.

**Deadline for items to be included in the  
September 2016 issue of *The Indicator* is**

**July 28, 2016**

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

**[www.TheIndicator.org](http://www.TheIndicator.org)**



### Micron Analytical Services

**COMPLETE MATERIALS CHARACTERIZATION  
MORPHOLOGY CHEMISTRY STRUCTURE**

**SEM/EDXA • EPA/WDXA • XRD XRF • ESCA • AUGER • FTIR • DSC/TGA**

**Registered with FDA • DEA GMP/GLP Compliant**

**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)**

## 68th Annual Undergraduate Research Conference

The Sixty-eight Annual Undergraduate Research Conference was held on Friday, April 28, 2016, at Seton Hall University, NJ. Five undergraduate students from three local universities (Drew University, St. Peter's University, and Seton Hall University) presented their research to an audience of students, faculty and scientists from the North Jersey area. The three judges, Dr. Alan Cooper, a retired medicinal chemist from Merck/Schering Plough, Diane Krone, chair of the ACS Society on Education, and Dr. Matthew Mongelli, an Assistant Professor at Kean University, had the difficult task of choosing the top three undergraduate student presentations. Each presenter represented their institution skillfully and gave some insight into the research that is being conducted at undergraduate institutions in the North Jersey Section of the ACS. First Place and the Jean Asell Durana Award were given to Ms. Theresa M. Kucinski of Drew University whose presentation was titled, "The Heterogeneous Reaction of Isoprene and Kaolinite." Her research was conducted under the direction of Dr. Ryan Z. Hinrichs. Second place was awarded to Ms. Rebecca Ferriera, who is a senior at Drew University working with Dr. Ronald J. Doll on the topic, "Synthesis of allosteric stimulators of the metabotropic mGluR4 glutamate receptor for potential therapies of CNS diseases."

The third place award was given to Ms. Leanne Mocniak, a senior at Seton Hall University. Her presentation was titled, "The study of Drug Interactions during Separation using Gas Chromatography – Mass Spectrometry." Her research was conducted under the direction of Dr. Dr. Nicholas H. Snow. The award certificates will be formally presented at the North Jersey Section's Annual Awards Dinner held on Wednesday, May 24, 2016 in Lenfell Hall on the Fairleigh Dickinson University campus in Madison, NJ.

*(Pictures on pages 6 and 7)*



**Eastern Scientific**

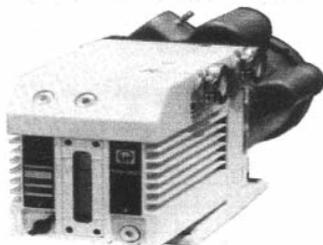
**[www.easternsci.com](http://www.easternsci.com)**

**781-826-3456**

### ***Vacuum Pump Problems?***

Eastern Scientific specializes in the repair and precision rebuilding of all makes of mechanical vacuum pumps.

*Free pick-up & delivery  
Restrictions apply*



## 68th Annual Undergraduate Research Conference

*(All photos courtesy of Tom Krone)*



**Dr. Matthew Mongelli, Kean University,** organizer of the symposium gives a welcome message.



**Daniel Centeno, St. Peter's University,** presents his research on the "Antibacterial Effect of Metals in Russian Propolis Ethanol Extracts."



**Theresa Kucinski, Drew University,** discusses her research on "the Heterogeneous Reaction of Isoprene and Kaolinite."



**Stephanie Sanchez, Drew University,** describes her research to adjust the in vitro human liver metabolism of the benzimidazole compound class.



Rebecca Ferriera, Drew University, reported on the synthesis and chiral separation of cis-cyclohexyl-1,2-dicarboxamides as mGluR4 activators for the possible treatment of Parkinson's and Alzheimer's diseases



Leanne Mocniak, Seton Hall University, describes her research on "The Study of Drug Interactions during Separation using Gas Chromatography-Mass Spectrometry"



Judges Diane Krone, Dr. Alan Cooper, and Dr. Matt Mongelli

Awardees: Theresa Kucinski, Jean Asell Durana Awardee; Rebecca Ferriera, 2nd Place Awardee; Leanne Mocniak, 3rd Place Awardee.



## North Jersey Meetings

<http://www.njacs.org>

### NORTH JERSEY EXECUTIVE COMMITTEE MEETING

There will be no North Jersey Executive Committee Meeting in June. The next meeting will be a joint meeting with Project SEED on **Monday, September 26, 2016** at Seton Hall.



### NORTH JERSEY ACS MINORITY AFFAIRS GROUP

#### Team Trivia Night at the Fox & Hound

Come out and join the North Jersey ACS Minority Affairs Group as we participate in Fox & Hound's Team Trivia night. Team Trivia is a live, hosted trivia event. The game (approximately 2 hours) consists of 2 halves; 3 rounds and 10 questions each half, which include a halftime question and a final question. Categories include pop culture, movies, music TV, sports, and more.

This is your chance to meet your chemistry peers, show off your trivia skills and HAVE FUN!

**Date:** Wednesday, June 8, 2016

**Time:** 8:00 PM

**Place:** Fox & Hound  
250 Menlo Park Drive  
Edison, NJ

**Cost:** Free

Please RSVP by **June 1, 2016** to [nojerseyacscma@gmail.com](mailto:nojerseyacscma@gmail.com)

For additional details about this event and upcoming North Jersey ACS Minority Affairs Group activities, visit our Facebook page:

<https://www.facebook.com/groups/323033524917/>

Tomeka Saxon, North Jersey ACS Minority Affairs Group Chair

Jeannette Brown, North Jersey ACS Minority Affairs Group Advisor

## 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, June 13, 2016

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.



## 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.



## CANDIDATES FOR THE FALL 2016 ACS NORTH JERSEY SECTION ELECTION

The ACS North Jersey Section Nominating Committee is announcing the slate of candidates who will appear on the fall 2016 ballot. They are:

### Candidates for Chair-Elect, 2017:

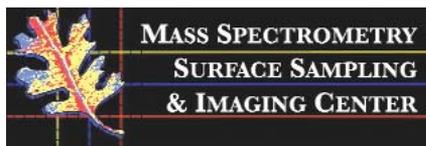
Amjad Ali  
Miriam Gulotta

### Candidate for Treasurer:

Jacqueline Erickson

### Candidates for Councilor:

Amjad Ali  
Mirlinda Biba  
Jeannette Brown  
Bettyann Howson  
Jasmine Lu  
Les McQuire  
Bill Suits



## NORTH JERSEY MASS SPECTROMETRY DISCUSSION GROUP

### Annual Fall Symposium, Vendor Night & Poster Session

*Speaker:* Gary J. Van Berkel, PhD  
Oak Ridge National Laboratory

Every autumn the NJ Mass Spec Discussion Group holds our Annual Fall Symposium, Vendor Night & Poster Session, and this year the date is set for Tuesday, September 13.

We are delighted to announce, and privileged to welcome Dr. Gary Van Berkel, who currently holds a joint faculty position at the Bredesen Center for Interdisciplinary Research and Graduate Education, University of Tennessee, Knoxville and Group Leader and Distinguished Research Staff, Mass Spectrometry and Laser Spectroscopy Group, Oak Ridge National Laboratory. Much of Dr. Van Berkel's work has been combining the power of mass spectrometry and microscopy, and he is the recipient of many prestigious awards including the Biemann Medal from ASMS. If you would like to learn more about Dr. Van Berkel's work please visit their website: [http://web.ornl.gov/sci/ms\\_imaging\\_center/](http://web.ornl.gov/sci/ms_imaging_center/).

Further details will be available via Facebook ([www.facebook.com/NJACSMSDG](http://www.facebook.com/NJACSMSDG)), Twitter (NJACSMSDG), or at [www.njacs.org](http://www.njacs.org) (Topical Group: Mass Spectrometry). If you interested in a vendor table at this event, please contact Jasmine Lu at (732) 893-5405.

**Date:** Tuesday, September 13, 2016

**Times:** Poster Session and Vendor Exhibits 3:00 PM

**Place:** Holiday Inn  
195 Davidson Avenue  
Somerset, NJ

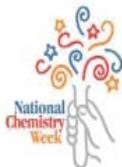
Kathleen Anderson, NJMSDG Director of Communications

**CHEM EXPO 2016 — Saturday, October 22, 2016**

See flyer on page 10 and Calls for Help and Sponsorship on pages 11 and 12.

# ChemExpo 2016

at Liberty Science Center



Saturday, October 22, 2016  
10 a.m. - 2 p.m.

## "SOLVING MYSTERIES THROUGH CHEMISTRY"

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



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



**ChemExpo 2016**  
**Saturday, October 22, 2016**  
**Call for Help**

On Saturday October 22nd, the North Jersey Section of ACS will be holding its 22nd 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 "Solving Mysteries Through Chemistry". 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, 2016. 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.

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

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

Please fill out the following form and return to Monica Sekharan at [monicasekharan@njacs.org](mailto:monicasekharan@njacs.org)

**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. 22<sup>nd</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)



**ChemExpo 2016**  
**Saturday, October 22, 2016**  
**Call for Sponsorship**

On Saturday October 22nd, the North Jersey Section of ACS will be holding its 22<sup>nd</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 "Solving Mysteries Through Chemistry".

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

Please fill out the information below and return the form to Bobbi Gorman at [rosellerams@yahoo.com](mailto:rosellerams@yahoo.com).

## Sponsorship Form

My company would like to support these efforts at the \_\_\_\_\_ (indicate gold, silver, or bronze) level.

Name of the Company:

The following company/individuals are willing to help defray the costs of these events:

An acknowledgement letter for this contribution should be sent to:  
 Name:

Email:

Full address:



## NNI 2.0 - THE FUTURE OF USA NANOTECHNOLOGY

Luncheon/Webcast • June 2, 2016 • Penn Club

Free Webcast for ACS National Members – Register at [www.cmeacs.org](http://www.cmeacs.org)

### Abstract

The National Nanotechnology Initiative (NNI) envisions a future in which the ability to control matter at the nanoscale leads to a revolution in industry that benefits society. Since 2000, Federal agencies participating in the NNI have invested over 20,000,000,000 dollars in various aspects of nanotechnology.

Nanotechnology is enabling revolutionary innovations for the future of electronics, computation, communications, and sensing. New nanoparticle-based composites and additives offer dramatic improvements in properties such as strength-to-weight ratios, manufacturing complexity, lubrication, and catalytic efficiency. Also, advances in nanoparticle-based, targeted therapies help to treat diseases like cancer.

But much remains to be done when it comes to transitioning advances in R&D to commercial applications. June 2 is your opportunity to share insights into industry's future prospects in order to refine the upcoming NNI 2.0 plan.



**Speaker: Michael A. Meador, PhD**, is Director of the National Nanotechnology Coordination Office (NNCO). He promotes the NNI goals of fostering cutting-edge nanotechnology R&D; advancing testing, characterization and fabrication; facilitating commercialization of nanotechnology-based products and promoting responsible development. He is on detail from the NASA Glenn Research Center where, since 1983 he has been involved in materials R&D including serving as the Chief of the Polymers Branch (1988 to 2011). From 2011 to 2014, he led a NASA-industry-university project to mature high payoff nanotechnologies for use in NASA missions under the Space Technology Mission Directorate's Game Changing Development Program. Meador received the NASA Equal Opportunity Employment Medal and the NASA Exceptional Service Medal for nanotechnology R&D. Dr. Meador is a Fellow of ACS, and Adjunct Faculty Member at Clemson University. He received a BA in Chemistry from Ithaca College and a PhD in Organic Chemistry from Michigan State University



### 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

LEADERSHIP  
*Awards*<sup>TM</sup>  
December 6, 2016

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

## New York Meetings

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

### NEW YORK SECTION BOARD MEETING DATES FOR 2016

The dates for the Board Meetings of the ACS New York Section for 2016 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 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 2016 Board Meetings will be held on the following dates at St. John's University, 8000 Utopia Parkway, Jamaica, NY. Dr. Alison Hyslop 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.

The board meetings dates for 2016 will be

#### Friday, June 17, 2016

Friday, September 16, 2016

Friday, November 18, 2016

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

<http://www.NewYorkACS.org>



### CHEMICAL MARKETING & ECONOMICS (CM&E) GROUP

#### NNI 2.0 - The Future of USA Nanotechnology

*Speaker:* Michael A. Meador, PhD  
Director of the National  
Nanotechnology Coordination  
Office

#### Date: Thursday, June 2, 2016

Times: 11:00 AM - 2:00 PM

Place: Penn Club  
304 West 44 Street  
New York, NY

See updated flyer on page 13.

### NY 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.

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

#### Date: Wednesday, June 8, 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)

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



### NEW YORK SECTION – MIDDLE ATLANTIC REGIONAL MEETING 2016

Theme: “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 (page 31),  
more extensive information below and  
on pages 16-17.***



## **ACS 44th MIDDLE ATLANTIC REGIONAL MEETING SPONSORS/EXHIBITORS**

### **Exhibitors**

- Advion
- Agilent Technologies
- Biotoools
- Bruker
- Enovative Technologies
- Magritek
- McGraw-Hill Education
- Machery-Nagel, Inc.
- Nanalysis
- National Science Foundation
- Oakwood Chemical
- Pearson
- Rigaku Oxford Diffraction
- Rutgers University
- Shimadzu
- TA Instruments
- TCI America
- Temple University

- University of Pennsylvania
- VELP Scientific, Inc.
- Vernier Software

### **Sponsors**

#### **Platinum**

- ACS Division of Industrial & Engineering Chemistry
- ACS Division of Organic Chemistry
- SCIEX

#### **Gold**

- ACS Division of Colloid and Surface Chemistry
- ACS Division of Physical Chemistry
- Bio-Logic USA, LLC
- Institute for Soft Matter Synthesis and Metrology
- International Environmental Research Foundation
- Rowan University

#### **Silver**

- ACS Division of Biological Chemistry
- ACS Division of Education
- ACS Division of Energy and Fuels
- ACS Division of History of Chemistry
- ACS Division of Small Chemical Business
- Anton-Parr
- Empire Science Resources
- McGraw-Hill Education
- Shimadzu
- St. John's University
- Thomas A. Kubic & Associates  
Forensic Consultants

#### **Bronze**

- Bruker
- Enzo Life Science
- Manhattanville

#### **Advertisers**

- Rowan University
- National Science Foundation
- Temple University
- University of Pennsylvania
- Dr. Peter Dorhout

**S U R P R I S E**

our editor by calling and saying you appreciate the quality and content of our newsletter. Our editor works hard to maintain a publication of interest to our membership. Oh, and by the way, you could also give credit to our advertisers who financially support us.

We cordially invite you to

44th Middle Atlantic Regional Meeting | marmacs.org

# Chemical Biology Session

**Time:** June 11, 2016, 10:30 am—12:30 pm & 2:30 pm—5:45 pm  
**Location:** Founder's Hall, Room 315, College of Mount Saint Vincent, Riverdale, NY  
**Organizers:** Dr. Yuan Chen, Beckman Research Institute of the City of Hope, Duarte, CA  
 Dr. Ping Furlan, United States Merchant Marine Academy, Kings Point, NY

Dr. Ming-Ming Zhou, The Mount Sinai Hospital, New York, NY  
 From epigenetic structural mechanism to targeted therapy

Dr. Jian Jin, The Mount Sinai Hospital, New York, NY  
 Discovery of selective inhibitors for histone methyltransferases

**Featuring:**

Dr. Minkui Luo, Memorial Sloan Kettering, New York, NY  
 Chemical interrogation of protein methyltransferases

Dr. Yuan Chen, Beckman Research Institute of the City of Hope, Duarte, CA  
 Ubiquitin-like modifications as targets for developing cancer therapeutics

Dr. Murat Kadir, Lubrizol Advanced Materials, Inc., Cleveland, OH  
 Structural feature and modification of keratin fiber by carbonyl-containing compounds

Dr. Jun Li, Bristol Myers Squibb, Princeton, NJ  
 Inhibitor of 11b-HSD-1: Discovery of clinical candidate BMS-823778



We cordially invite you to

44th Middle Atlantic Regional Meeting | marmacs.org

# MARM 2016 EXPOSITION

**When:** June 10 & June 11, 2016, 9:00 AM—5:30 PM  
**Where:** Peter Jay Sharp Athletic & Recreation Center, College of Mount Saint Vincent, Riverdale, NY  
**Why:** Meet face-to-face with leaders & representatives of prominent Corporations and Universities as they demonstrate new products, discuss exciting programs, and answer your questions

**Who:**

Advion  
 Agilent Technologies  
 Biotoools  
 Bruker  
 Enovative Technologies  
 Immaculata University  
 Magritek  
 Machery-Nagel, Inc.  
 McGraw-Hill Education  
 Nanalysis  
 National Science Foundation  
 Oakwood Chemical

Pearson  
 Perkin Elmer  
 Rigaku Oxford Diffraction  
 Rutgers University  
 St. John's University  
 Shimadzu  
 TA Instruments  
 TCI America  
 Temple University  
 Thermo Fisher Scientific  
 University of Pennsylvania  
 VELP Scientific, Inc.  
 Vernier Software

Waters  
 THE SCIENCE OF WHAT'S POSSIBLE.™



**QUANTEX**  
 LABORATORIES

Serving Pharma/Biopharma, Industry, Academia & Government Since 1992

**Analytical and R&D Services**

FDA Registered GMP/GLP Compliant

**609.655.4047**

**Metals by AAS, ICP-OES, ICP-MS • GC(FID, TCD, ECD) • HPLC(UV, PDA, RI, FL, ELSD, PAD, Coulometric)  
 IC • GC/MS • LC/MS • FTIR/FTIR-HATR • UV/Visible Spectroscopy • Polarimetry • Osmometry  
 KF • Titrimetry • TOC • Lovibond • Particulate Matter • Headspace • Purge & Trap**

[www.quantexlabs.com](http://www.quantexlabs.com)

3000 Eastpark Blvd., Cranbury, New Jersey 08512 P: 609.655.4047 F: 609.655.4374  
 email: [info@quantexlabs.com](mailto:info@quantexlabs.com) [www.quantexlabs.com](http://www.quantexlabs.com)



14<sup>th</sup> Middle Atlantic Regional Meeting at



COLLEGE OF  
MOUNT SAINT VINCENT

Riverside, New York

## MARM 2016

is pleased to announce the symposium,

### Microwave Chemistry: Bridging Synthetic Research and Instructional Innovation

**Friday 10 June 2016**

featuring a keynote address by

#### **C. Oliver Kappe**

Professor of Chemistry, University of Graz

Key Researcher, Research Center Pharmaceutical Engineering (RCPE)



#### Schedule

- 9:00 Opening remarks
- 9:10 Microwave reactors as tools in organic chemistry lab courses (C.O. Kappe)
- 10:00 Necessity is the mother of invention: Development of a green undergraduate laboratory experiment demonstrating the E1 reaction utilizing a microwave reactor and resin based acid catalyst (R.G. Aslanian)
- 10:30 Using microwave assist to stimulate a multiple component experiment to connect labs across the chemistry curriculum (A.S. Koch)
- 11:00 Intermission
- 11:15 Microwave-assisted esterification: A discovery-based microscale laboratory experiment (S.M. King)
- 11:45 Investigations of Factors Controlling Structures of Metal-Organic Frameworks Using Microwave Assisted Synthesis (M.P. Masingale)
- 12:15 MIBLabs: A student-centered sophomore organic curriculum featuring microwave chemistry (S.S. Murphree)

**Register for the conference and plan on attending the symposium!**



*the organizers gratefully acknowledge the financial support of Anton Paar*

## 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

### Chemistry Challenge

See review of April 15 meeting on page 32.



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

### MicroRNAs: A Gene Silencing Mechanism with Therapeutic Implications

**Organizers:** Lynn M. Abell, PhD  
Bristol-Myers Squibb  
Andreas G. Bader, PhD, MSc  
Mirna Therapeutics, Inc.

David Brown, PhD  
Mirna Therapeutics, Inc.

George Zavoico, PhD  
JonesTrading Institutional Services

Sonya Dougal, PhD  
The New York Academy of Sciences

Caitlin McOmish, PhD  
The New York Academy of Sciences

**Speakers:** David Bartel, PhD  
Whitehead Institute;  
Massachusetts Institute of Technology

Paul Grint, MD  
Regulus Therapeutics

David S. Hong, MD  
The University of Texas  
MD Anderson Cancer Center

Daniel J. Siegart, PhD  
University of Texas  
Southwestern Medical Center

Frank Slack, PhD  
Harvard Medical School;  
Beth Israel Deaconess  
Medical Center

James W. Welsh, MD  
The University of Texas  
MD Anderson Cancer Center

This symposium will present up-to-date basic, translational, and clinical research addressing the biology of miRNA and their promise as a therapeutic target with a particular focus on oncology.

### Call for Poster Abstracts:

Abstract submissions are invited for a poster session. For complete submission instructions, please send an email to [miRNA@nyas.org](mailto:miRNA@nyas.org) with the words "Abstract



## Robertson Microlit Laboratories

*Where speed and accuracy are elemental*

Elemental CHN, S, X, Analysis (same day service)  
Metals by ICP-OES, ICP-MS, A/A  
FTIR, UV/VIS Spectroscopy  
Ion Chromatography

GC-MS  
Polarimetry  
DSC, TGA, melting point  
KF Aquametry, Titrimetry

1705 U.S. Highway 46 • Suite 1D • Ledgewood, NJ 07852 • 973.966.6668 • F 973.966.0136  
[www.robertson-microlit.com](http://www.robertson-microlit.com) • email: [results@robertson-microlit.com](mailto:results@robertson-microlit.com)

**Rapid Results • Quality • Accuracy • Competitive Pricing**

Information" in the subject line. **The deadline for abstract submission is May 13, 2016.**

**Date: Wednesday, July 13, 2016**

**Time:** 9:00 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 10007

**Cost:** This event is has reduced-rate registration for ACS and NYAS members, at \$60 or \$25 (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 \$160 (corporate), \$105 (non-profit or academic) or \$70 (students and post-docs).

A simulcast webinar is also offered at reduced registration fees.

For more information and to register for the event, go to: [www.nyas.org/miRNA](http://www.nyas.org/miRNA).

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



## LONG ISLAND SUBSECTION

### **Board Meetings:**

**Dates:** **Thursdays, September 29, October 27, and November 17**

**Times:** 6:30 PM

**Place:** Nassau Community College  
Life Sciences Building  
Chemistry Department Office  
2nd Floor

### **LIACS Seminars:**

**Dates:** **Thursdays, October 6 and November 3**

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

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

### **Holiday seminar and election**

**Date:** **December 1**

**Time:** 5:30 PM

**Place:** Nassau Community College



## NY-CHEMAGINATION

The thirteenth Annual Chemagination contest of the New York Section of the American Chemical Society (NYACS) was

hosted by NYACS at St. John's University on April 9, 2016. Chemagination is a science essay and poster contest for high school chemistry students, grades 9-12, that asks them to address the question, "What innovation or breakthrough in the field of chemistry will be important in the lives of teenagers 25 years from now?" Students choose one of four categories: Alternative Energy Resources, Environment, Medicine/Healthcare, or New Materials and their entries are written as articles of 1000 words or less that might appear in a future issue of ChemMatters, a science publication for high school students. Students make a poster presentation of their articles on the day of the contest.

The written entries were received through web submission and then made available to the judges prior to the day of the contest. This year's event had 18 posters and 30 students from three different high schools, South Side High School, Division Avenue High School, and Garden City High School.

The Chemagination contest began with welcoming remarks by Dr. Alison Hyslop (Chemagination Coordinator along with Dr. Nipa Deora), Dr. Brian Gibney (NY ACS Elect Chair, Associate Professor, Brooklyn College), and Dr. Nipa Deora (Chemagination Coordinator along with Dr. Alison Hyslop). This was followed by the judging of posters. A panel consisting of three judges interviewed each group of students and selected the top two posters in each category. Judging criteria included scientific thought, creativity, clarity, thoroughness, and teamwork. The first and second place winners in each category were given trophies. All participants were given certificates of participation. The first place entry in each category was invited to represent NYACS at the Regional 2016 MARM Chemagination, held this year at the College of Mount Saint Vincent on June 11, 2016. Congratulations to all the students who participated in Chemagination 2016 and to all the Science Advisors for promoting chemistry at the high school level.

Special thanks to all the judges, to Dr. Brian Gibney for delivering welcoming remarks from the ACS, his help during day of the event, and maintaining the Chemagination website, and to St. John's University for hosting the event.

## NY SECTION'S CHEMISTS CELEBRATE EARTH DAY'S "WALK THE BROOKLYN BRIDGE" EVENT



It was a beautiful, clear, and sunny day on Sunday, April 24th – perfect for students and faculty, members of the New York Section of the ACS, and friends and families to come together to celebrate the 5th Annual Chemists Celebrate Earth Day's "Walk the Brooklyn Bridge" event!

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

Local colleges and companies represented at the event included Pace University, New York University, Baruch College, Brooklyn College CUNY, Columbia University, Department of Environmental Protection, Kingsborough Community College, Merck,

Mineola High School, St. John's University, Saint Peter University, Saint Stanislaus Catholic Academy, The Graduate Center of the City of New York, St. Joseph's College, Hunter College, and NYCT. There were more than 170 people in attendance 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 University, and Coordinator of Chemists Celebrate Earth Day, followed by opening remarks by Dr. Alison Hyslop, St. John's University and Chair of the ACS-NY Section. The Keynote Speaker, Prof. Bill Eaton, Chair of the Department of Biology, Pace University, NYC, delivered an enthusiastic, eye-opening, and informative talk entitled, "Climate change and evidence for its impact in a tropical forest".

Each participant was provided with breakfast, snacks, and earth day gifts (recycled Earth Day rubber duckies and reusable, collapsible water bottles, earth day wrist bands, earth day buttons, and a reusable Hawaiian lei). Everyone was given a helium-filled Earth Day balloon to display while we all made our trek across the iconic Brooklyn Bridge. We had an Earth Day Banner which was carried to lead the way for our parade route from Pace University across the bridge.

The event was co-sponsored by the Chemistry Club of Pace University, the Chemistry Club of St. John's University, and Saint Joseph's College.



## WESTCHESTER CHEMICAL SOCIETY

On April 4, 2016 Monika Sikand, an Assistant Professor in the Department of Engineering, Physics and Technology at Bronx Community College, Bronx, NY spoke on the "Optical Properties of Mixed Phase Arctic Clouds as Observed from a Tethered Balloon Instrument Platform". Dr. Sikand described experiments done in the spring of 2008 using a tethered balloon in Ny Ålesund, Norway, located high in the Arctic at 78.9°N, 11.9°E. Clouds, which cover about 60% of the Earth's surface account for two-thirds of the planet's albedo. About 30% of incident light is reflected and an albedo decrease of 1% is equivalent to a blackbody temperature increase of 1°C. The tethered balloon's instruments were used to investigate vertical profiles of liquid water and ice portions of arctic mixed-phase clouds. Results were compared to satellite and air-plane-based measurements. Flights were made in clear air (baseline), mixed-phase clouds (some with all ice in their upper layers) and water over ice cloud structures. The balloon instruments included a particle imager (liquid water is close to spherical, ice is usually asymmetric), a meteorological package (pressure, temperature, humidity, wind speed and direction) and a two-channel (500 and 800 nm)  $4\pi$  radiometer (the solid angle defined by an entire sphere is  $4\pi$  steradians, just as the plane angle associated with an entire circle has  $2\pi$  radians) so that measurements may be made in all, specifically six, directions (i.e., up, down, east, west, north, south). Data were recorded every two seconds. The total downward fluxes at 500 and 800 nm were also measured using a ground instrument at the same location. A multivariate non-linear model is fitted to data from a rising vertical profile and from the corresponding profile from the balloon's return to ground. The model successfully described the data, including clearly non-linear divergences from a simple unidirectional model. The

model was fitted using non-linear least squares. The data used include solar irradiance at the cloud tops, the solar zenith angle and the surface albedo. Data are discretized into 42 separate vertical slabs. The model fits  $\mathbf{y} = \mathbf{f}(\mathbf{x})$ , where  $\mathbf{y}$  is a vector of two measurements at each of 500 and 800 nm and  $\mathbf{x}$  is a state vector of optical depths for low and high clouds. In conclusion, the data can be used to infer the total optical depth and its partitioning between liquid water and ice, the total optical depth observed on certain flights was retrieved, and the time evolution of the vertical distribution of liquid droplets and ice particles was estimated. Feasibility studies for future experiments are in progress.

There was enthusiastic discussion with the audience during and after Dr. Sikand's interesting and informative talk, given at the Westchester Community College in Valhalla, NY. Dr. Sikand did her PhD at Stevens Institute of Technology, Hoboken, NJ. She works as a Visiting Scientist in Light and Life Lab and teaches Physics to Business and Technology majors in Stevens Institute of Technology. At Bronx Community College she teaches courses in Physics, Astronomy and Sustainability, Energy and Green Economy and mentors students in Radiative Transfer research. She is also involved in outreach efforts towards sustainable and green environment that raise funds for *Alliance in Climate Education (ACE)* and *American Geophysical Union (AGU)* in climate bike ride events (including a 100-mile ride from Maine to Boston). Her research interests include the use of remote sensing to study radiative transfer in atmospheric and coupled systems that could be helpful in understanding the radiation budget of earth and climate. Dr. Sikand is also interested in studying Urban and human dominated regional systems using Radiative Transfer coupled with interdisciplinary environment research. The photo below is of Dr. Sikand and the WCS board of directors who attended the meeting.



**Peter Corfield,  
Joan Laredo-  
Liddell, Monika  
Sikand and  
Paul Dillon**

*(Photo courtesy  
of Paul Dillon)*

## WESTCHESTER CHEMICAL SOCIETY

On Wednesday, April 27, 2016, at Pace University in Pleasantville, NY, the Westchester Chemical Society presented its Distinguished Scientist Award to Stephen A. Cooke, Ph.D. "For contributions to the development of Fourier transform microwave spectroscopy." Dr. Cooke received his Ph.D. in Physical Chemistry from the University of Exeter, England. His published undergraduate research with Prof. A. C. Legon encouraged him not only to continue in graduate and post-doctoral research, but also to provide opportunity and encouragement to undergraduates and high school students to do meaningful and publishable research. He was associate professor at the U. of North Texas before being appointed Doris and Carl Kempner Distinguished Professor in the Department of Chemistry at the School of Natural and Social Sciences, Purchase College, SUNY, Purchase, NY. Dr. Cooke has had numerous publications, invited and conference presentations, has won several awards, and serves on the editorial boards of several journals. His research interests have included the design and construction of novel instruments, such as Fourier-transform microwave spectrometers. He has used these in the study of halogenated, particularly fluorinated, compounds, finding unexpected phenomena, such as a "bis-trifluoromethyl effect" in which two  $-CF_3$  groups connected by one central carbon atom can give rise to a double minimum potential energy well in which the two  $CF_3$  groups undergo a dis-rotary motion against each other.

Dr. Cooke's lecture was entitled "Molecular rotational resonance spectroscopy as a tool for observing unusual molecular motions in fluorocarbons." He began by noting that, beyond the well-known hydrogen, other types of nuclei within a molecule "rotate", and that furthermore these nuclei can be made to rotate coherently, altogether through the use of applied magnetic fields and radio frequencies. This is the principle behind nuclear magnetic resonance (NMR) spectroscopy, a technique so common that it forms an important part of any undergraduate chemistry curriculum. Just as nuclei can be made to rotate coherently, it is also pos-

sible to cause entire molecules to rotate coherently. Molecular rotational resonance (MRR) spectroscopy is a new type of spectroscopy with a wide array of potential applications. In his talk he explained the principles of the MRR technique and outlined the design and operation of an MRR instrument. Dr. Cooke noted that MRR is very data and computationally intensive. During the first 20  $\mu$ Sec. more raw data are collected than are needed for an entire NMR spectrum. For several years his group has been using MRR spectroscopy to explore unusual features of organofluorine compounds. He discussed some practical uses of the MRR technique, such as its use to determine the lowest lying conformers of n-butyl fluoride. This allows more accurate theoretical calculation of the enthalpies of combustion of low-molecular weight hydrocarbons.



**Stephen A. Cooke, Westchester Chemical Society Distinguished Scientist 2016**

*(Photo courtesy of Stephen Cooke)*

The photos following are of WCS co-chairs, Rolande Hodel and Paul Dillon, opening the meeting and introducing Dr. Cooke, of Dr. Cooke delivering his lecture, of Dr. Cooke receiving his award, and of Dr. Cooke with the members of the WCS board attending.



**Rolande Hodel Opening the Meeting**  
*(Photo courtesy of Paul Dillon)*



**Stephen Cooke Delivering His Lecture**  
*(Photo courtesy of Paul Dillon)*



**Paul Dillon informs the audience about the MARM conference.**  
*(Photo courtesy of Paul Dillon)*



**Rolande Hodel Presenting His Award To Stephen Cooke**  
*(Photo courtesy of Paul Dillon)*



**Joan Laredo-Liddell, Peter Corfield, Jody Reiffenberg, Stephen Cooke, Rolande Hodel, Paul Dillon and Jean Delfiner**  
*(Photo courtesy of Rolande Hodel)*

In addition to the Distinguished Scientist Award, the Westchester Chemical Society also presented a number of undergraduate Student Awards. Further, this year, we presented awards to outstanding students from two local high schools. We thank Dr. Peter Corfield of our board and Fordham University for his considerable efforts in the selection of the student awardees. The Student Awardees were:

<b>School Faculty</b>	<b>Awardee</b>
<b>Bronx Community College</b> Faculty: Sunej Hans	Kelvin Luna
<b>College of Mount Saint Vincent</b> Faculty: Andrea Minei	Harmandip Parmar
<b>College of New Rochelle</b> Faculty: Lee Warren	Jayastary Sohlt
<b>Fordham University</b> Faculty: Paul Smith	John Szymanski
<b>Manhattan College</b> Faculty: John Regan	Melissa Skuriat
<b>Manhattanville College</b> Faculty: Darlene Gandolfi	Natalia Lizardo
<b>Mercy College</b> Faculty: Carl Embola	Dixie Ekeigwe
<b>Pace University, Pleasantville</b> Faculty: Ellen Weiser	Reena Boruk
<b>Purchase College, SUNY</b> Faculty: Patrick Dwyer	Tejaswi Tatineni
<b>Ramapo College of NJ</b> Faculty: Sarah Carberry	Holly Gorin
<b>Rockland Community College</b> Faculty: Jeremy Rodriguez	Callie Bailey-Wickins
<b>Westchester Community College</b> Faculty: Jody Reifenberg	Edward Amelemah
<b>Briarcliff High School</b> Faculty: Robert Saar	Aishwarya Sriharan
<b>Ossining High School</b> Faculty: Angelo Piccirillo	Sarah Fendrich
Faculty: Valerie Holmes	Yooshin Tanai

Next are photos of individual awardees and their faculty advisors:

(First four photos courtesy of Paul Dillon)



Kelvin Luna and Sunej Hans (Bronx Community College)



Harmandip Parmar and Andrea Minei (College of Mount Saint Vincent)



Jayastary Sohlt and Lee Warren (College of New Rochelle)



**John Szymanski and Paul Smith (Fordham University)**

*(Next two photos courtesy of Rolande Hodel)*

*(Next two photos courtesy of Paul Dillon)*



**Dixie Ekeigun and Carl Embola (Mercy College)**



**Melissa Skuriat and John Regan (Manhattan College)**



**Peter Corfield, Reena Boruk and Joseph Krumpfes (standing in for Ellen Weiser, who did not attend, Pace University)**



**Darlene Gandolfi and Natalia Lizardo (Manhattanville College)**



**Callie Bailey-Wickins and Jeremy Rodriguez (Rockland Community College)**

*(Photo courtesy of Rolande Hodel)*



**Edward Amelema and Jody Reifenberg**  
(Westchester Community College)

*(Photo courtesy of Rolande Hodel)*



**Angelo Piccirillo, Sarah Fendrich and Yooshin Tanai**  
(Ossining High School)

*(Photo courtesy of Paul Dillon)*

\*\*\*\*\*



**Aishwarya Sritharan and Robert Saar**

*(Photo courtesy of Paul Dillon)*

The awards dinner is cosponsored by WCS and the Department of Chemistry & Physical Sciences of Dyson College of Arts and Sciences, Pace University (with thanks to their Dr. Ellen Weiser). We gratefully acknowledge financial support for this event from the Departments of Chemistry at Bronx Community College, Fordham University, Mercy College and Manhattan College.

The photo below of is the student awardees and Peter Corfield, the WCS Education Secretary (note that two awardees, Tejwasi Tatineni and Holly Gorin, were unable to attend):



**Back Row: Peter Corfield, Dixie Ekeigwe, Callie Bailey-Wickins, Reena Boruk, Sarah Fendrich, Kelvin Luna, Yooshin Tanai, Edward Amelema, John Szymanski and Harmandip Parmar. Front Row: Melissa Skuriat, Jayastary Sohit, Aishwarya Sritharan and Natalia Lizardo**

*(Photo courtesy of Paul Dillon)*

The awards presentations and Dr. Cooke's lecture were attended by an enthusiastic audience of almost 70 persons. They were followed by a delicious dinner, and socializing with each other. A few photos of the attendees follow) all courtesy of Rolande Hodel).

## **WESTCHESTER CHEMICAL SOCIETY**

On Friday, April 15, 2016, one of our board members was one of seven inducted into the Hunter College Hall of Fame for Education.



## Call for Applications

### 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

## 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 [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).



### NEW YORK SECTION OUTSTANDING SERVICE AWARD FOR 2016

Many members of the New York Section provide their time, leadership talent, and knowledge to the New York Section. The tradition of excellence of the New York Section is attributable directly to the cumulative effect of these dedicated individuals. Each year the New York Section presents the Outstanding Service Award to a most deserving member of the section. The New York Section is now accepting nominations for this award.

A nomination letter with supporting data should be emailed to the 2016 OSA Committee Chair, Dr. Barbara Hillery at [hilleryb@oldwestbury.edu](mailto:hilleryb@oldwestbury.edu). Nominations will be accepted **until June 30, 2016**.

The nominations will be reviewed by a committee consisting of the previous five winners of the award. The Outstanding Service Award for 2016 will be presented at the New York Section's Section-wide Conference in January 2017.

For more information about the award along with a list of former award recipients, please visit the ACS New York Section's website at [http://www.newyorkacs.org/awards\\_nyacs.php](http://www.newyorkacs.org/awards_nyacs.php)

---

## Call for Abstracts

---

### BIOCHEMICAL TOPICAL GROUP

#### MicroRNAs: A Gene Silencing Mechanism with Therapeutic Implications

Abstract submissions are invited for a poster session. For complete submission instructions, please send an email to [miRNA@nyas.org](mailto:miRNA@nyas.org) with the words "Abstract Information" in the subject line. **The deadline for abstract submission is May 13, 2016.**

See meeting announcement on page 12.

---

## Grants Available

---

### ACS SENIOR CHEMISTS

Dear Local Section Officers,

The ACS Senior Chemists Committee (SCC) is pleased to offer a limited number of grants to local sections that wish to sponsor an event or activity that will increase the engagement of senior members and encourage innovative activities that will benefit the local community, schools, or legislative government.

#### Grant Details:

- A limited number of grants (up to \$500) are available to local sections that wish to host an event/activity that meets the above criteria;
- Local sections must submit a grant application **by July 15, 2016**. Grant funds are limited and will be awarded on a first-come, first-served basis;
- A summary report must be submitted within 30 days of the conclusion of the event/activity.

For more information, please email [silvercircle@acs.org](mailto:silvercircle@acs.org). Thank you.

### ACS LEADERSHIP DEVELOPMENT SYSTEM® GRANTS AVAILABLE TO LOCAL SECTIONS

The Committee on Local Section Activities (LSAC) is pleased to offer a limited number of grants to local sections that wish to host ACS Leadership Development System® courses in 2016-2017. This partnership between the ACS Leadership Advisory Board (LAB) and LSAC will allow your local section to provide a tangible member benefit to your local section members at no charge.

#### Grant Details:

A limited number of grants (up to \$3,000) are available to local sections that wish to host an ACS Leadership Development System® course in the fall of 2016 through 2017.

Upon grant approval, eligible local sections will be awarded \$1,800 to cover the registration fees (\$150pp) for the first 12 participants who register for the course;

Additional grant monies up to \$1,200 will be awarded to local sections who wish to offer additional scholarships.

Local sections may choose to host any of the following courses:

- Engaging Colleagues in Dialogue
- Engaging and Motivating Volunteers
- Fostering Innovation
- Coaching and Feedback
- Collaborating Across Boundaries
- Leading Without Authority
- Developing Communication Strategies
- Strategic Planning\*

\*Local Sections may choose to sponsor a 1.5 day Strategic Planning Retreat for the Executive Committee and up to 7 other members. Please note that the \$3000 will not cover the entire cost of the Retreat but it will help to offset the \$4500 fee which covers the costs and facilitator fees associated with the Retreat. In addition, the local section should budget for meals, snacks and

(continued on page 30)

## GRANTS AVAILABLE

(continued from page 29)

any meeting room expenses that may be incurred.

Local sections must submit a grant application **by July 15, 2016**. Grant funds are limited and will be awarded on a first-come, first-served basis. Dates to host a leadership course are subject to facilitator availability.

All courses are facilitated by an ACS member who has been trained and certified to teach the course. As each facilitator is a volunteer, flexibility is requested in accommodating your proposed workshop date. ACS will provide all course materials, and a computer and projector if needed. Local sections are responsible for reserving a meeting room (with a screen and flipcharts), providing a light snack for attendees, and assisting with course promotion on their website, mailings and meeting announcements. ACS is available to provide limited support in promoting the course to your members.

ACS Leadership Development System<sup>®</sup> courses provide participants with an opportunity to learn essential skills that will strengthen their competitive edge in today's global economy. For more information about these courses and course scholarships, please visit [www.acs.org/leaderdevelopment](http://www.acs.org/leaderdevelopment) or contact [leaders@acs.org](mailto:leaders@acs.org).



## ACS COMMITTEE ON LOCAL SECTION ACTIVITIES

### Two Local Section Mini-Grant Funding Opportunities: May 31 Application Deadline

The ACS Committee on Local Section Activities is sponsoring two mini-grant programs for local sections: the Local Section Science Café Mini-Grant and the Local Section Bridging-the-Gap Mini-Grant. Local Sections are invited to apply for either or both grant opportunities; the deadline to apply falls on the same date: May 31, 2016. What follows is an explanation of both grant opportunities.

### Science-Café Mini-Grant

If you are looking to plan an activity for your Local Section beyond just the ordinary monthly meeting, consider organizing a Science Café! Funding of up to \$500 is available to local sections to host a single science café or ongoing science café series in their area. Science cafés provide a relaxed, open venue for non-scientists and scientists alike to discuss current general or special interest topics.

Learn more about Science Cafés and apply online.

**Note:** if your Section was awarded this mini-grant in 2015, your Section must submit a summary report if it wishes to be considered for this grant period.

### Bridging-the-Gap Mini-Grant

The 2016 theme for this grant program is "New Technology to Increase New Member Involvement". With available funding of up to \$500, ACS Local Sections are encouraged to identify and implement technology to engage new section members. "New technology" is defined as something that has never been used previously by the applying local section; it need not be cutting-edge.

Potential technology ideas for this mini-grant opportunity can include, but are not limited to:

- Webinars for section meetings and other events
- Regional Meeting Mobile Apps
- Electronic Voting for Local Section Elections
- Audience response systems (e.g., "Clickers")

Learn more about the 2016 Bridging-the-Gap Mini-Grant and apply online.

**Remember: May 31, 2016 is the deadline** to apply for both the Science Café and Bridging-the-Gap Mini-Grant programs.

If you have questions, concerns, or comments about either grant program, please contact [lsac@acs.org](mailto:lsac@acs.org).

Aviva Westheim  
Volunteer Support • Member Communities  
1155 Sixteenth St., NW  
Washington, DC 20036  
T 202-872-6096 • F 202-872-4353  
[www.acs.org/getinvolved](http://www.acs.org/getinvolved)

---

## 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 2 Science is seeking volunteers to aid in our Virtual Lab program. We have a series of elementary, middle, and high school experiments that we will be running in various schools across New Jersey. Members are especially needed to help with the North Jersey section's IPG funded project to bring hands-on science to South Jersey. We need professionals to help in the classroom with the students. It's great fun, a wonderful way to give back, and only requires a few hours of your time. Opportunities begin in November. For more information, contact Fran Nelson, [frannelson@students2science.org](mailto:frannelson@students2science.org) and visit our website at [Students2Science.org](http://Students2Science.org)

**See also Call for Help, page 11.**

---

## National

---

### IMPORTANT INFORMATION REGARDING CANDIDATES FOR THE FALL 2016 ACS NATIONAL ELECTION

The Committee on Nominations and Elections (N&E) is announcing the slate of candidates who will appear on the fall 2016 ballot. They are:

#### Candidates for President-Elect, 2017

Peter K. Dorhout, Vice President for Research, Kansas State University, Manhattan, KS

Thomas R. Gilbert, Professor, Department of Chemistry and Chemical Biology, Northeastern University, Boston, MA

#### Candidates for Directors-at-Large, 2017-2019

Joseph A. Heppert, Associate Vice Chancellor for Research, University of Kansas, Lawrence, KS

Kristin M. Omberg, Group Leader, Chemical & Biological Signature Science Group, Pacific Northwest National Laboratory, Richland, WA

Dorothy J. Phillips, Retired, Waters Corporation, Milford, MA

Kathleen M. Schulz, President, Business Results, Inc., Albuquerque, NM

#### Candidates for District II Director, 2017-2019

George M. Bodner, Arthur E. Kelly Distinguished Professor of Chemistry, Purdue University, West Lafayette, IN

Christina C. Bodurow, Senior Director, Medicines Development Unit External Sourcing, Eli Lilly and Company, Indianapolis, IN

#### Candidates for District IV Director, 2017-2019

Rigoberto Hernandez, School of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, GA

Larry K. Krannich, Executive Director, Alabama Academy of Science, Birmingham, AL

According to ACS Bylaw V, additional candidates may be nominated by petition until July 15th, 2016. We will notify you again after the July 15th deadline to confirm the final slate of candidates that will appear on the fall ballot, if there are any changes.

I want to take this opportunity to remind you that there should be no articles published covering their campaign or viewpoints or speaking engagements offered between now and the end of the election period in October, unless the opportunities are provided to all candidates for that office equally. This ban does not include N&E approved publication of scientific research articles, coverage of truly noteworthy scientific news events, or certain types of activities related to official governance duties. Extenuating circumstances will be reviewed by N&E on a

*(continued on page 32)*

## NATIONAL

(continued from page 31)

case-by-case basis. To be safe, please contact me if you plan to refer to these candidates in any way in your publication. If you receive any phone calls or correspondence from a candidate requesting assistance or information pertaining to the election, please refer them to me, Frank Walworth, the assistant staff liaison, or Liz Beckham.

With this formal announcement of candidates to all editors and officers, N&E specifically wants to alert you to ACS Bylaw V, Sec. 13, a and b, which states:

Sec. 13, a. "No funds of the SOCIETY, its Local Sections, or its Divisions shall be used to support or to oppose the candidacy of an individual or group of individuals. No facilities, such as office space, equipment, or supplies; official letterhead; or mailing permit of the SOCIETY, its Local Sections, or its Divisions shall be used to support or oppose the candidacy of an individual or group of individuals, except as provided in this Section."

Sec. 13, b. "If space in a SOCIETY, Local Section, or Division publication, other than a paid advertisement at commercial rates, be used to support or to oppose the candidacy of an individual, space must be made available simultaneously and equally to support or to oppose the candidacy of every other candidate for the same office."

We are providing this information as a reminder so that no undue publicity will be given to a candidate running for national office and to assure that the "Fair Election Procedures" are adhered to according to ACS Bylaws.

If you want to invite candidates to submit a statement for potential publication in a newsletter or bulletin, we can provide you with a 300 word generic statement. The 300 word statement is optional but most candidates have provided us with one in the past. Please contact Liz Beckham (202-872-4594) if you want to request these statements.

If you invite or provide a speaking forum for one candidate, you must invite ALL candidates for that position to speak at the same time to be in compliance with the ACS "Fair Election Procedures." The candidate(s) can then choose whether or not to participate.

N&E requests that a copy of your invitation to any candidate, with regards to an article for publication from them or mentioning them, or an invitation to speak or appear at a Local Section Meeting be provided to me for filing in their election folder for reference. You can send it via e-mail to me at the above address, and also copy Liz Beckham, who works closely with all candidates, at [L\\_beacham@acs.org](mailto:L_beacham@acs.org).

With this memo the committee has made an official attempt to inform all local section editors, officers and others affiliated with ACS publications about the "Fair Election Procedures."

N&E has published an updated set of "ACS Campaign Guidelines and Frequently Asked Questions" which can be accessed at <http://www.acs.org/elections> (click on "Campaign Guidelines"). Please make sure you are familiar with these guidelines and note under the heading "Process & Activities" that candidates were able to begin their election campaigning on March 24 (one week after the ACS Spring National Meeting). If you have any questions or concerns regarding candidates or national election procedures, please contact me (202) 872-4461 or Frank (202) 872-6070.

The Committee on Nominations and Elections sincerely appreciates your cooperation.

Liz Beckham  
Office of the Secretary and General Counsel  
Staff Support, Committee on Nominations and Elections  
American Chemical Society  
1155 16th St. NW, Washington, DC 20036  
T 202-872-4594  
F 202-872-6338

## LONG ISLAND SUBSECTION

### Chemistry Challenge

On Friday evening, April 15, 2016, twenty-eight teams from 9 area colleges competed in the 16th annual Long Island Subsection of the New York Section of the American Chemical Society's Chemistry Challenge.

After a filling dinner sponsored by the QCC Chemistry Club, the QCC Affiliates of the American Chemical Society, the STEM Academy, the CSTEP club, the Science Research Alliance, the Haitian Club, the STEM Research Club, the Biology Club, the Environmental Sustainability Club, ASAP, the Korean Students' Association, the Student Health Club and PTK, Quizmaster/Master of Ceremonies Dr. Paul Sideris walked the students through the 45 timed multiple choice questions (and expertly explained the answers after time ran out on each question) to which they responded with clickers. Questions were carefully curated to apply to chemistry students at both 2-year and 4-year colleges by Dr. Sideris, Dr. Sujun Wei, Dr. Luis Vargas, Chair of the Chemistry Department Dr. Sasan Karimi and Dr. Paris Svoronos who, as always, was instrumental in organizing the multitude of student volunteers who were indispensable in setting up before and cleaning up after the event. The QCC Chemistry Club and Chemistry Honors students were again especially helpful here.

QCC team 1 (honors students Tao Hong, Jane Jiang, and Yueli Chen) won the Gold in the 2-year category. Rounding out the 2-year category, a sudden death competition put Hofstra's team 2 over St. John's team 1 for Silver and Bronze, respectively. In the 4-year category, Adelphi team 1 took the Gold, followed by Adelphi team 2 with the Silver, and SUNY Old Westbury team 2 with the Bronze. Of note, were the 2-year schools not separated from the 4-year schools, QCC1 would have taken home the Silver overall, missing only 1 more question than Adelphi's team of Juniors and Seniors! BIG congratulations to the students and to the faculty members who so expertly taught them!

Gold, silver and bronze winners from the 2-year and 4-year schools won prizes including 32GB memory keys, headphones and USB power supplies, sponsored by the LIACS.

The event would not have been possible without the cooperation of the staff in several offices, specifically Pete Irigoyen in the Chemistry Stockroom, Amy Baltajian in the Registrar's office, Ed Locke in Parking Operations and Vivi Tsarouhas in Buildings & Grounds. Dr. Jun Shin provided photography services and has already posted pictures of the event on the Chemistry web site (<http://www.qcc.cuny.edu/chemistry/chem-challenge2016.html>), with pictures of the winners to follow shortly.

Everyone named above has my sincere gratitude for helping to put on a flawless event that was thoroughly enjoyed by the students, mentors, and ACS members in attendance. Chemistry faculty members are especially taxed for time this year organizing the Mid-Atlantic Regional Meeting of the ACS, the LIACS High School Awards Ceremony, the Undergraduate Research Symposium and this event simultaneously, so Paul, Paris, and Sujun deserve extra extra thanks.

Congratulations once again to our winning students, and a final thank you to everyone who helped.

Kevin Kolack, PhD  
Chair, Long Island Subsection of the  
American Chemical Society



## Professional/Product Directory

**Happy Father's Day  
to all Fathers  
and Congratulations  
to all Graduates  
from The Indicator**

**NMR<sub>Service</sub> 500MHz**

**\*Mass**

**\*Elemental Analysis**

**NuMega Resonance Labs**

**numegalabs.com P- 858-793-6057**

### WANT MORE ARTICLES

When you tell our advertisers that you saw their ads here they have more confidence in our newsletter's viability as an advertising medium. They advertise more. This supports our many activities.

### RECRUITING WEB SITE LISTING DIRECT TO YOUR SITE

There are two important ways to recruit through our services. One is to place a print ad in the Indicator. The other is to place a web site ad reaching out to 40,000 ACS members. We recommend using both low cost methods.

You can view both of these opportunities by going to the link below. Who uses these options?

- Companies for lab, management and sales personnel
- University & College teaching positions
- Hospitals for technical and research personnel

We provide more qualified resumes because of the highly targeted technical audience.

**info -- [www.mboservices.net](http://www.mboservices.net)**

### YOU TOLD US

Membership surveys show that you want more articles in our newsletter. If you tell our advertisers that you saw their ad here, they will provide more financial support and this will allow us to add more articles.

## Ad Index

### ANALYTICAL

Micron Inc. . . . .	4
NuMega Resonance Labs. . . . .	34
Quantex . . . . .	16
Robertson Microlit Labs . . . . .	18

### EQUIPMENT

Eastern Scientific Co. . . . .	5
--------------------------------	---

### GENERAL

ACS-NY/NoJ Sections . . . . .	15
ACS-NY/NoJ Sections . . . . .	34
ACS-NY/NoJ Sections . . . . .	34
ACS-NY/NoJ Sections . . . . .	34