

THE Indicator

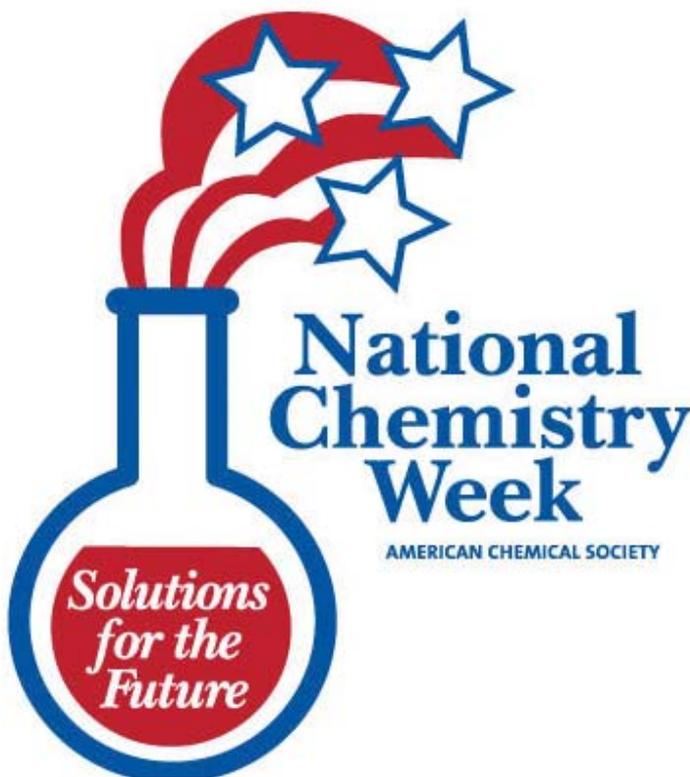
OCTOBER 2016

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Celebrate National Chemistry Week Oct. 16-22

Solving Mysteries Through Chemistry



*See NY articles on pages 18 and 21
and NoJ articles on pages 8-10, and 22-23.*

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THIS MONTH IN CHEMICAL HISTORY

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

Christmas is coming (eventually); or perhaps there's a birthday – even your own – on the horizon. I have a gift suggestion for anyone interested in the history of chemistry: a new book. And buying it won't break the bank. (Disclaimer: I have no financial involvement with either author or publisher. In fact in a tangential way this book could be considered a competitor of one of my own works.) The book is called simply "The Chemistry Book" by Derek B. Lowe, published by Sterling in 2016. The title is misleading; it could better be called "The History of Chemistry Book in 250 one page summaries arranged in chronological order from 500,000 BCE to 2030(!)". The subtitle is "From gunpowder to graphene; 250 milestones in the history of chemistry". One of the book's most attractive features is that each one page article is accompanied by a full page illustration, mostly in color, relevant to the milestone described.

I will just pick out a few of my favorite milestones for comment. My own leaning is towards the earlier history of chemistry, so this is a slanted selection. 3300 BCE is Bronze, with an illustration of an ancient Chinese bronze bell. The production of bronze in the Bronze Age probably began with an accidental discovery that the addition of certain "stones" in the smelting of naturally occurring copper minerals like malachite produced a harder and more useful metal than copper itself. Isotopic analysis of bronze objects from around 2000 BCE suggests that tin ores from Cornwall in the west of England were being traded that early to places around the Eastern Mediterranean. That trade continued for over 3900 years.

1200 BCE is devoted to Purification, and the author suggests that the earliest recorded "chemist", immortalized in a Babylonian tablet, is the perfume maker Tapputi. She extracted pleasant smelling raw materials like balsam and myrrh with water, filtered the suspension, and distilled the solution to concentrate the vapors as perfumes. But unnamed workers probably anticipated her work by over 1000 years. Egyptian tomb bas-reliefs show women extracting perfume from lilies.

Ca. 450 BCE brings us to the golden age of Greek philosophical and scientific thought, and to the long-lasting concept of the four elements: earth, air, fire, and water. These were the bases of a theory of matter sketched by Empedocles, adopted and embroidered by Plato and Aristotle, and added to by Arabic alchemists in the 8th. century and later. The theory was so engrained into scientific thinking, despite the atomistic ideas of Democritus that were suggested at around the same time, that in 1662 Robert Boyle, of gas law fame (and so much more!) devoted much time and energy to the writing of "The Skeptical Chemist" (spelling modernized) attacking the ancient four elements concept.

Ca. 60 CE brings us Natural Products. Not that humankind had not been using natural products for millennia before that. But in the year cited the Greek physician Dioscorides, wrote the first comprehensive book on the use of natural products in medicine: "De Materia Medica". As a doctor to the Roman army Dioscorides traveled widely around the Mediterranean collecting plants and the local folklore that assigned them curative powers. In a sense he can be described as the father of natural product and medicinal chemistry.

Chemical warfare in Europe probably began around 670 with Greek Fire. Described by Theophanes in "Chronographia" (ca. 814) he attributes the invention to an unnamed architect from Heliopolis. An illustration from a 12th. century Sicilian manuscript shows a ship with a tube at its bow shooting out fire at an enemy ship. The composition of Greek Fire is an object of speculation. At the time of its introduction it was a closely held state secret. It probably contained crude petroleum products and perhaps pine resin. Petroleum seepages around the Black Sea have been known for millennia. The distinguished historian of chemistry, J.R. Partington wrote a book on Greek Fire and related subjects.

"The Chemistry Book" is informative, engaging, well-written, and attractive. I will be telling you more about it in the run-up to Christmas!

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Jersey Sections of the American Chemical
Society. Published jointly by the two sections.**CONTENTS**

Advertisers' Index	27
Call for Applications	25
Call for Nominations	24
Call for Sponsors	22
Call for Volunteers / Help	23, 25
National Chemistry Week	
New York Section	18, 21
North Jersey Section	8-10, 22-23
New York Meetings	14-18
North Jersey Meetings	5-7
Others	26
Professional/Product Director	27

EDITORIAL DEADLINES

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
September	July 28
October	August 28

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

October Calendar

NEW YORK SECTION

Thursday, October 6, 2017

Long Island Subsection
See page 14.

Thursday, October 6, 2016

Chemical Marketing and Economics Group
See page 15.

Tuesday, October 11, 2016

Westchester Chemical Society
See pages 16-17.

Friday, October 21, 2016

High School Teachers Topical Group
See page 17.

Tuesday, October 25, 2016

Organic Topical Group
See page 17.

Thursday, October 27, 2016

Long Island Subsection Board Meeting
See page 18.

**Thursday, October 27, and Sunday,
October 30, 2016**

Hudson-Bergen Chemical Society and
National Chemistry Week Celebrations
See pages 18 and 21.

also

**Thursdays, November 10 and
December 8, 2016, Early February 2017**

Westchester Chemical Society
See pages 19-20.

Thursday, November 3, 2016

Long Island Subsection
See page 14.

Thursday, November 17, 2016

Long Island Subsection Board Meeting
See page 14.

Friday, November 18, 2016

New York Section Executive Meeting
See page 14.

NORTH JERSEY SECTION

Monday, October 10, 2016

Careers in Transition
See page 5.

Thursday, October 13, 2016

Drug Metabolism Discussion Group
See page 7.

Wednesday, October 19, 2016

North Jersey Executive Committee Meeting
See page 5.

Wednesday, October 19, 2016

NMR Topical Group Symposium
See pages 5-6.

Saturday, October 22, 2016

National Chemistry Week ChemExpo
See page 10.

**Deadline for items to be
included in the
November 2016 issue of
The Indicator is
September 28, 2016**

The Indicator is posted to
the web on the 15th of
the previous month at
www.TheIndicator.org



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North Jersey Meetings

<http://www.njacs.org>

NORTH JERSEY EXECUTIVE COMMITTEE MEETING –JOINT MEETING WITH NMR TOPICAL GROUP

Section officers, councilors, committee chairs, topical group chairs, and section event organizers meet monthly at the Executive Committee Meeting to discuss topics of importance to running the section and representing the membership.

All ACS members are most welcome to attend this meeting and to become more involved in section activities.

(See NMR Symposium flyer on page 6.)

Date: Wednesday, October 19, 2016

Time: NMR Symposium 1:00 - 5:45 PM

Place: Frick Chemistry Laboratory
Princeton University
Princeton, NJ

Time: Buffet dinner 6:00 PM, joining
NMR symposium attendees
Committee Meeting 7:00 - 8:30 PM

Place: Frick Lab, Room A81

Executive Committee members are welcome to attend the NMR symposium which will take place from 1:00 to 5:45 PM.

For teleconference participation dial:
(866) 217-3840 and enter code 1209261

Consult the NJACS website for updates
<http://www.njacs.org>

For reservations please call NJACS secretary Bettyann Howson (973) 822-2575 or email chemphun@gmail.com or register online at <http://www.njacs.org> prior to **Wednesday, October 12, 2016**.

No shows are kindly asked to provide advance notice



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 10, 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

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.

See www.njacs.org under the Career tab for Jobs hidden from sight and relevant blogs.

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North Jersey ACS NMR Topical Group

presents

2016 NMR Symposium

October 19th, 2016

Princeton University

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

Afternoon session (1 - 5:45 pm):

Ann McDermott
 Columbia University

Angela Gronenborn
 University of Pittsburgh

Tatyana Polenova
 University of Delaware

Kebede Beshah
 DOW chemical Co.

Robert Thomas Williamson
 Merck Research Labs

Followed by Dinner

We acknowledge the generous support of our sponsors:



Luciano Müller

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NJACS PARTNERS WITH STUDENTS2SCIENCE

Members are encouraged to volunteer at their East Hanover facility and explore their website at 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.



NoJ DRUG METABOLISM DISCUSSION GROUP

Fall Meeting: "Translational Advances in Drug Disposition and Toxicity: Emerging Technologies and Tools"

Mark your calendars for the next NJDMDG Symposium,

- Please plan to pre-register as a group, as coordinated by a member of the NJACS DMDG steering committee from your organization (see list). If you have no DMDG member at your company, please contact Lauren Aleksunes

(aleksunes@eohsi.rutgers.edu) for registration.

- Payments by personal or company checks. Sorry, credit cards are not accepted.
- Checks should be made payable to: NJ Drug Metabolism Discussion Group.

Exhibitors:

- Please contact Anima Ghosal (ghosala@aol.com) for information concerning exhibits

Date: Thursday, October 13, 2016

Times: 8:45 AM - 4:00 PM

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

**Cost: Pre-registration fee is \$125 (pre-register by October 7, 2016).
Registration fee at the door is \$150 (Checks only)
Registration fee is \$10 for students and postdocs and \$50 for faculty
Registration is free for unemployed**



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

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.

NoJ Section — National Chemistry Week News, pp. 8-10, 22-23



National Chemistry Week 2016 Illustrated Poem Contest: “Solving Mysteries Through Chemistry”

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 21, 2016

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

Teachers will receive a corresponding monetary prize.

MAIL TO: NJACS Office, Bettyann Howson, 49 Pippins Way, Morris Township, NJ 07960

#1 Winners of the **North Jersey Section** 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, “Solving Mysteries Through Chemistry”. 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:

- DNA
- Fingerprints
- Art Forgeries
- Pigments
- Invisible Ink

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 2016 theme, “Solving Mysteries Through Chemistry”.
- 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.



**National Chemistry Week (NCW) 2016
"Solving Mysteries Through Chemistry"**

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 Local Section Contest is **FRIDAY, OCTOBER 21, 2016**.

Student's Name							
Grade							
Parent's or Guardian's Name							
Parent's or Guardians Email							
Parent's or Guardian's Phone							
School or sponsoring group: <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 nd <input type="checkbox"/>		3 rd -5 th <input type="checkbox"/>		6 th - 8 th <input type="checkbox"/>		9 th - 12 th <input type="checkbox"/>	
FOR LOCAL SECTION USE ONLY							
Local Section Name (Number)		NORTH JERSEY SECTION					
NCW Contest Coordinator		BOBBI GORMAN – rosellerams@yahoo.com					

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

or email mitachaki@gmail.com; monicasekharan@njacs.org

2016 NJACS FELLOWS

The American Chemical Society honored its 2016 Class of ACS Fellows on Monday, August 22, 2016 at the 252nd National Meeting in Philadelphia. The ACS Fellows Program “recognizes members of the American Chemical Society for outstanding achievements in and contributions to science, the profession, and the Society.” New ACS Fellows of the North Jersey Section are Raymond A. Baylouny, Valerie J. Kuck and, David P. Rotella.



Valerie Kuck with past ACS President Katie Hunt.



2016 ACS Fellow Valerie Kuck.



Immediate Past President Diane Grob Schmidt with 2016 ACS Fellow Raymond Baylouny.



Ray Baylouny with his family.

(All photos courtesy of Tom Krone)



New ACS Fellows Val Kuck and Ray Baylouny celebrate with members from the North Jersey Section. From left to right: Amber Charlebois, Val, Ray, Bill Suits, Chair Luciano Mueller, and Secretary Bettyann Howson.

NORTH JERSEY SECTION UNDERGRADUATE TRAVEL GRANT

In 2012, the North Jersey Section ACS established the Undergraduate Travel Grant to assist and encourage students to present their research posters at the ACS national meetings. Up to four grants of \$600 each are awarded each year. Students may apply for either the spring or fall meeting.

At the fall meeting in Philadelphia, three grants provided four students with assistance for travel and lodging expenses. Rutgers students, Christopher Markosian and Belle Lin presented their research entitled "Geis Digital Archive: An Open-Access

Educational Resource for Structural Biology." Chris and Belle worked with their advisor Ms. Christine Zardecki. Dr. Nadhal Marashi, Assistant Professor of Chemistry at Essex County College, traveled with her students, Nikki Heron and Jonelle Evans. At the SciMix Poster Session, Nikki and Jonelle presented their poster entitled, "What's Cooking at ECS," highlighting activities of the very successful ACS student chapter. Both poster presentations were included in symposia sponsored by the ACS Division of Chemical Education.

The application for 2017 Undergraduate Travel Grants may be found at: <http://www.njacs.org/ug-travel-grants>



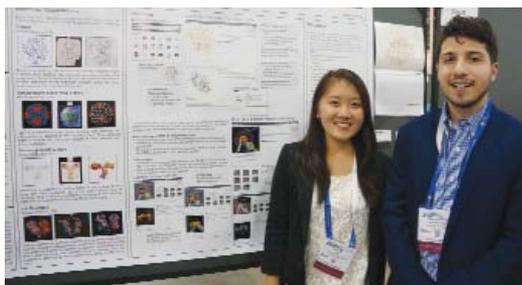
ECC students Heron and Evans presenting their poster in the Student Affiliate Chapter Symposium.



Dr. Nadhal Marashi, advisor to ECC Student Affiliate Chapter



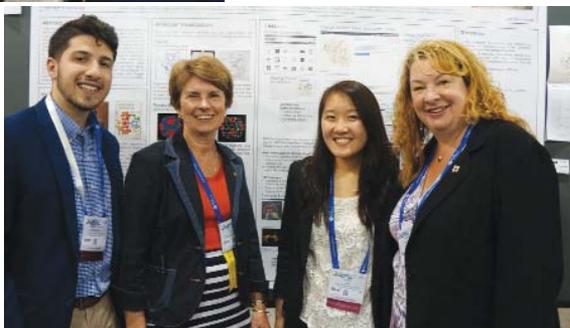
Viewing the ECC poster are No J Education chair, Bettyann Howson and Chapter Advisor, Dr. Nadhal Marashi



Rutgers students Chris Markosian and Belle Lin participating in the undergraduate research poster symposium.

RU students with No J Education chair, Bettyann Howson and Dr. Amber Charlebois, former professor of chemistry FDU, Madison.

(All photos courtesy of Bettyann Howson)



SAFETY EDUCATION

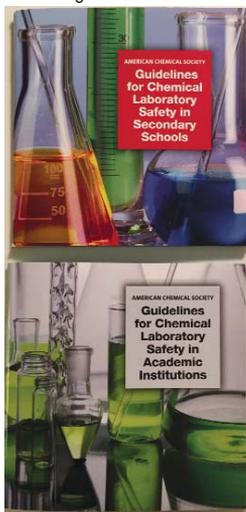
Bettyann Howson, Chair,
Committee on Chemical Education

The ACS Committee on Chemical Safety (CCS), released two new resources that emphasize the importance of integrating safety education throughout the chemistry curriculum. Principles of safety must be taught over time rather than just during one-time safety trainings. To provide further guidance on integrating safety education into the chemistry curricula, CCS established the Task Force for Safety Education Guidelines. At the national meeting in Philadelphia, the task force presented the committee with the final documents entitled: Guidelines for Chemical Laboratory Safety in Secondary Schools and Guidelines for Chemical Laboratory Safety in Academic Institutions.

The Safety Education Guidelines are organized around the concept of R.A.M.P. – an acronym for the Four Principles of Safety: **R**ecognize the hazard, **A**ssess the risk of the hazard, **M**inimize the risk of the hazard, and **P**repare for emergencies. The guidelines also include student learning outcomes which clearly state the expected knowledge, skills, attitudes and competencies in the area of chemical safety that students are expected to learn as they progress through their education. To request a copy of the guidelines please send a message to safety@acs.org or download them at www.acs.org/safety

ACS Web Strategy is pleased to present a new website with a rich collection of methods and tools for assessing hazards in research laboratories. The site is based on the document *Identifying and Evaluating Hazards in Research Laboratories*, a guide created by the CCS in response to a recommendation by the U.S. Chemical Safety Board (CSB) for ACS to develop such guidance. The *Hazard Assessment in Research Laboratories* website provides easier access and navigation through the rich information, thus leading to greater usability.

The committee hopes that these new tools will provide additional support for researchers to develop plans for identifying and assessing risks for experimental procedures which in turn will reduce the likelihood and consequences of unwanted incidents. This new resource is now available at www.acs.org/hazardassessment



New York Meetings

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 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, 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>



LONG ISLAND SUBSECTION

A Systematic Review and Meta-analysis of the Effectiveness of Tobacco Related Interventions Among Adult Individuals with Either Mild/Moderate Intellectual Disabilities or Mental Illness

Speaker: Dr. Simone E. Edwards
United Cerebral Palsy
New York City, NY

Purpose: The prevalence of tobacco-related issues among individuals with Intellectual Disabilities (ID) and Mental Illness (MI) is of great importance to public health officials because smoking activities often lead to chronic health conditions. Chronic health conditions are the leading causes of death in the United States. Since individuals with mental illnesses use tobacco at greater rates, they suffer greater smoking-related medical illnesses and mortality. The vast majority of these individuals struggle with competency and as a means to increase

their self-esteem and to boost confidence, they choose to smoke. Unfortunately, they often find it difficult to quit. The purpose of this study is to improve the precision and power of the data that focuses on the effectiveness of smoking cessation interventions for individuals with ID/MI.

Methods: The first step of the methodological process was to conduct a systematic review of the literature on tobacco-related health interventions geared towards ID/MI individuals. The second step was to use relevant quantitative information extracted from studies of interest to conduct a meta-analysis. This study technique ultimately aided in pooling and quantifying the surge of smoking cessation intervention data in the field in order to provide valuable information for researchers, policy-makers, and clinicians.

Results: Sixteen studies met the primary inclusionary criteria of adult individuals with ID or MI who participated in a tobacco related intervention study. Of the sixteen, 30% were geared towards individuals with ID and the other 60% were geared towards MI individuals. However, only studies that focused on MI individuals were qualified for the meta-analysis because they were either a randomized controlled trial or clinical controlled trial. The other trials were used as a narrative of the results. The effect sizes were calculated using RevMan 5.3, using a relative risk ratio test statistics, which yielded an overall significant effect (RR 1.44, CI 1.09-1.90, I²= 0%). The results of the post-treatment long-term follow-up data were nearly identical and not heterogeneous, which indicates that the results represent true effects and were likely not a result of sampling error.

Conclusions: The effectiveness of smoking cessation interventions for the treatment of MI smokers is promising, as evidenced by the small, positive effects in this present study. In addition, the MI interventions included were significantly more effective for long-term cessation than no treatment at all. On the other hand, future research for the ID population should be conducted using a randomized controlled trial or clinical controlled trial so as to increase their statistical power.

Date: Thursday, October 6, 2016

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

Place: CUNY Queensborough
Community College
Science Building, S-111

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

CHEMICAL MARKETING & ECONOMICS (CM&E) GROUP

Sharpening the Strategic Focus

Speaker: Fred Festa
W.R. Grace CEO

Date: Thursday, October 6, 2016

Times: 11:00 AM. - 2:00 PM

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

Cost: Webcast free for ACS members

For more information, see flyer below.



SHARPENING THE STRATEGIC FOCUS

Luncheon/Webcast • October 6, 2016 • Penn Club

Free Webcast for ACS National Members – Register at www.cmeacs.org

Abstract

The world has changed unimaginably since Grace's founding 162 years ago. And the unique pedigree of Grace is reflected in the fact that only eight chief executives have led this legendary company built on the pillars of talent, technology and trust. Despite the colossal challenges of the last 13 years, the company has enhanced its standing as a premier global specialty chemicals and materials company. From 2003 to 2013, Grace revenue increased 60 percent to \$3.1 billion, EBITDA expanded 167% to \$674 million, and Adjusted Free Cash Flow rose from \$39 million to \$516 million. Grace's portfolio was rebalanced, expanding the breadth of the catalysts business and increasing polypropylene catalysts revenue more than \$200 million in less than five years.

The silica-related Materials Technologies segment was solidified and entered into pharmaceutical applications. The company's share of emerging region sales increase from 22% to 38%. Grace successfully met the challenges and navigated through the longest and one of the most contested Chapter 11 reorganizations in history, ending on February 3, 2014. Since then Grace has persistently focused on core business and competitive advantages that increase Grace's capabilities and agility in meeting new market needs.

Join us on October 6 to hear more on how sharpening the focus at Grace is helping accelerate growth and shareholder value for the next century.



Speaker: **Fred Festa** joined Grace as President and COO in 2003, became CEO in 2005, and Chairman in 2008. Festa led the transformation of Grace into a fully-integrated global specialty chemicals and materials company.

During Festa's tenure, Grace increased substantially revenues, earnings, free cash flow and the share of emerging region sales, formed several key joint ventures and completed 22 acquisitions. He guided the company successfully through one of the longest and most contested Chapter 11 reorganizations.

Previously, Festa served with distinction in senior leadership positions at Morgenthaler Private Equity Partners, ICG Commerce, AlliedSignal, Inc. (now Honeywell), and GE.

Fred graduated magna cum laude with a B.S. degree in Finance from SUNY Oswego.



Talent | Technology | Trust™



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

Event Host
Guy Penard
George Rodriguez

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LEADERSHIP
Awards™
December 6, 2016

www.cmeacs.org

WESTCHESTER CHEMICAL SOCIETY

Special Seminar – “Clinical Diagnostics: An Overview”

Speaker: Paul Dillon, PhD
 Biostatistical Consultant (through
 Randstad Sourceright,
 Alpharetta, GA)
 Siemens Healthineers
 Tarrytown, NY
 Co-Chair, Westchester
 Chemical Society
 Director at Large, NY Section of
 the American Chemical Society

Although “Classic” analytical chemistry informs much of Clinical Diagnostics, there are some important differences. Diagnostics use a limited range of sample types, most commonly blood and urine. Sample matrices have a more limited range than in general analytical chemistry.

Diagnostics are highly automated; instruments perform a wide range of analyses, randomly, with high throughput (up to 2000+ assays/hour). Typical analyses include clinical chemistries (e.g., glucose, enzyme activity), immunoassays, nucleic acid tests, and cytometry.

Not all analytes are well-defined molecular species. Some may be polymers of varying MW, some have a range of similar species, and some may have various forms (e.g., free and bound thyroxine). Assay standardization is important.

Unlike “Classic” quantitative analyses, which often drive reactions to completion, many diagnostics are kinetic with fixed times, requiring calibration with materials of known concentration.

Concentrations may be extremely low (pg/mL range) and the volume of sample for a single test may also be very low (1 to a couple of hundred μ L).

In addition to analytical sensitivity and specificity, clinical sensitivity and specificity and predictive values can be crucial. Indices computed from multiple analyses are often used to ensure clinical relevance.

Clinical diagnostics are highly regulated, in the US by FDA. Clinical trials are conducted under GCP (Good Clinical Practice), and manufacturing follows GMP (Good Manufacturing Practice) rules. Sites may be inspected. Manufacturing systems, R&D studies, QA systems, complaint handling

systems, materials, product labels, etc. will be reviewed. Reagent, calibrator, control and sample stability are all important.

Note that all comments are the opinions of myself not necessarily of Randstad Sourceright or Siemens Healthineers.

This is an expanded version of the talk that I gave at the Clinical Diagnostics Session of the 44th Middle Atlantic Regional Meeting, Bronx, NY, June 9, 2016.

Dr. Dillon obtained his B.S. degree in chemistry at the Polytechnic Institute of Brooklyn (now the Tandon School of Engineering of New York University), and his M.S. and Ph.D. degrees in chemistry at New York University. His early work with Union Carbide earned him an award from the Federation of Societies for Coatings Technology for his concept of critical relative humidity. While at Union Carbide, he became an internal consultant in applied statistics and mathematics concentrating on statistical design and analysis of multivariate experiments, engineering statistics and process simulations. For more than twenty-five years, Paul has been a biostatistician at Siemens Healthcare Diagnostics (and its corporate predecessors, Technicon Instruments and Bayer Diagnostics). Paul has contributed to the development and evaluation of classical clinical chemistry tests, immunoassays, and kinetic PCR assays on both existing and newly developed platforms. Since his retirement in 2012, Paul has continued (through Randstad Sourceright) as a biostatistical consultant for Siemens (now Siemens Healthineers). Paul is also co-chair and co-program director of the Westchester Chemical Society, a director at large for the NY Section of the American Chemical Society, and just recently became a co-chair of their Senior Chemists Group.

Date: Tuesday, October 11, 2016

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

Further Information: Paul Dillon

PaulWDillon2@hotmail.com

(914) 393-6940

Or:

Anthony Durante
anthony.durante@bcc.cuny.edu
 (718) 289-5542 or 5569

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), Facebook, Twitter, and the (914) 606-6900 phone line.



HIGH SCHOOL TEACHERS TOPICAL GROUP

"Demo Derby I"

An evening of non-stop demonstrations by the attendees. (5-8 minutes max.) Please bring things that might be useful in the current school year. The room no longer has a sink, water or gas service. You are responsible for observation of appropriate safety procedures and cleanup.

Note that we have planned two Demo meetings. The second will be in its usual April slot.

Date: Friday, October 21, 2016

Time: Social and Dinner — 5:45 PM

Place: Social and Dinner — TBD

Time: Meeting — 7:15 PM

Place: Meeting — New York University
 Silver Center for Arts and Sciences
 Room 207

Enter from 32 Waverly Place
 (South-east corner Washington
 Sq. East) or Washington Place.
 New York, NY

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.

ORGANIC TOPICAL GROUP — JOINT MEETING WITH THE NEW YORK ACADEMY of SCIENCES CHEMICAL BIOLOGY DISCUSSION GROUP

Emerging Paradigms in Drug Discovery & Chemical Biology

Speakers: Marcus Bantscheff
 Cellzome/GSK

Benjamin F Cravatt
 The Scripps Research
 Institute

Craig Crews
 Yale University

Howard Hang
 The Rockefeller University

Ruth Nussinov
 National Cancer Institute

Brian Raymer
 Pfizer

Bryan Roth
 University of North Carolina

Eranthie Weerapana
 Boston College)

Chemical Biology is changing the face of drug discovery. This symposium will highlight recent developments in the field, featuring examples from neurobiology and cancer, the ubiquitin proteasome system, GPCRs, and protein lipidation.

Date: Tuesday, October 25, 2016

Time: 12:00 – 5:00 PM

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

Cost: Registration: Member \$60

Member (Student / Postdoc /
 Resident / Fellow) \$25

Nonmember (Academia) \$105

Nonmember (Corporate) \$160

Nonmember (Non-profit) \$105

Nonmember (Student / Postdoc /
 Resident / Fellow) \$70

For more information and to register for the event, go to: www.nyas.org/Biologics.

To become a Member of the Academy, visit www.nyas.org/benefits.

IN CELEBRATION OF NATIONAL CHEMISTRY WEEK

THE HUDSON-BERGEN CHEMICAL SOCIETY and THE SCHOOL OF NATURAL SCIENCES OF FAIRLEIGH DICKINSON UNIVERSITY

Forensic Toxicology and Excited Delirium

Speaker: Sorin Diaconescu, MS
New Jersey State Toxicology
Laboratory

Forensic toxicology is the application to medical-legal investigation of the study of adverse effects of chemicals on living organisms. Mr. Diaconescu will talk about the toxic effects and analysis of certain natural and synthetic substances in humans, how they play a role in excited delirium and sudden death, and will present some case studies. Currently Mr. Diaconescu is the Laboratory Manager of the NJ State Toxicology Laboratory in Newark, NJ, where he oversees analytical method development and assay validation. Prior to that he was a Toxicology Section Supervisor with Ammon Analytical Laboratory in Linden, NJ; Confirmation Department Supervisor with the Forensic Toxicology Laboratory of LabCorp in Raritan, NJ; and Laboratory Technician with the NJ State Toxicology Laboratory in Newark, NJ. He is a member of the Society of Forensic Toxicologists, former adjunct faculty with the School of Natural Sciences at Fairleigh Dickinson University in Teaneck, NJ, and past chairperson of the Hudson-Bergen Chemical Society. Mr. Diaconescu obtained his M.S. in Forensic Science (Forensic Toxicology track) from John Jay College of Criminal Justice in New York. He holds a B.S. degree

in Chemistry and Biochemistry from Montclair State University.

Date: Thursday, October 27, 2016

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,
by October 20, 2016.



LONG ISLAND SUBSECTION

Board Meeting:

Dates: Thursday, October 27, 2016

Times: 6:30 PM

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



EMPLOYMENT AND PROFES- SIONAL RELATIONS COMMITTEE OF THE NEW YORK SECTION

To Human Resources Departments in Industry and Academia

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

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



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WESTCHESTER CHEMICAL SOCIETY

FUTURE MEETINGS

Special Seminar – “Competitive AlphaScreen® Assay for Hyaluronan Detection”

Speaker: Xiayun Huang
Tandon School of Engineering
New York University
New York, NY

This is a sensitive, rapid and cost-effective assay for hyaluronan (HA) quantification. It is almost independent of HA molecular mass; all HA greater than about 10 monosaccharides in length are equally detected. HA can be detected in the mass range of approximately 0.06-8 ng, using 2.5 μ l of sample containing HA at a concentration of approximately 25-3200 ng/ml. This homogeneous assay does not require any wash step, in contrast with traditional enzyme-linked immunosorbent assays. It combines specific binding between hyaluronan (HA) and aggrecan (G1-IGD-G2) with AlphaScreen® technology. AlphaScreen uses two types of beads: donor beads and acceptor beads. Donor beads convert ambient oxygen to excited singlet oxygen upon illumination at 680 nm. The singlet oxygen can diffuse approximately 200 nm in solution. Within this distance, energy can be transferred from the singlet oxygen to acceptor beads, which subsequently emit signal at 520-620 nm. Two beads can be brought into proximity through interaction of an analyte and its antibody or other binding partner.

In this HA assay, streptavidin-coated donor beads are used to bind biotinylated HA. The HA can specifically bind histidine-tagged aggrecan (G1-IGD-G2), which can in turn be captured by nickel chelate acceptor beads. Because the biotin-streptavidin interaction and Ni²⁺-histidine interactions are of very high affinity, the proximity of the two beads is determined by binding of the HA and aggrecan (G1-IGD-G2) that are tethered to the donor and acceptor beads, respectively. Signal due to the HA-aggrecan binding can be competitively inhibited by addition of unlabeled HA, either from calibration standards or samples. Unlabeled HA inhibits the HA-aggrecan interaction in a dose-depen-

dent manner. By the extent of signal decrease, HA concentration of samples can be quantified.

Xiayun Huang is a Ph. D. student in Materials Chemistry at the Tandon School of Engineering, New York University. He is currently working with Dr. Mary Cowman focusing on bioanalytical and biophysical chemistry, with special emphasis on hyaluronan (HA) research. Xiayun got his Bachelor of Science in Pharmaceutical Science from Fudan University, Shanghai, China.

Date: Thursday, November 10, 2016

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

Further Information: Paul Dillon

PaulWDillon@hotmail.com

(914) 393-6940

Or:

Anthony Durante

anthony.durante@bcc.cuny.edu

(718) 289-5542 or 5569

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), Facebook, Twitter, and the (914) 606-6900 phone line.

Special Seminar – “Effects of Overhanging Analyte Oligo Tails in Model DNA and Morpholino Arrays”

Speaker: Ursula Koniges
Tandon School of Engineering
New York University,
Brooklyn, NY

Date: Thursday, December 8, 2016

For Times, Place, Cost, and Further Information, see above.

(continued on page 20)

WESTCHESTER CHEMICAL SOCIETY

FUTURE MEETINGS

(continued from page 19)

Special Seminar – “Yes, But Why Sulfuric Acid? - Young William H Nichols Entry into 19th Century Chemical Industry”

Speaker: Peter Corfield, PhD
Department of Chemistry
Fordham University
Bronx, NY

Tentative

Date: Early February, 2017

For Times, Place, Cost, and Further Information, see page 19.



LONG ISLAND SUBSECTION

FUTURE MEETING

Exciting Semi-Conducting Materials Discovery in Organic Electronics

Speaker: Dr. Sujun Wei
Queensborough Community
College—CUNY
Bayside, NY

Organic electronics is a fascinating and interdisciplinary field of material science, concerning the design, synthesis, characterization, and application of organic small molecules or polymers. Typical applications include Organic Light-Emitting Diodes (OLED), Organic Field-Effect Transistors (OFET) and Organic Solar Cells (OSC). The emergence of new technology is often preceded by significant advances in materials. In this seminar, I'll introduce this particular field, and discuss our recent efforts in the exploration and understanding of a few new semiconducting materials. Among them I will focus on polymers containing thiophene-1,1-dioxide (TDO) by oxidizing polythiophenes with Rozen's reagent (HOF·CH₃CN). This reaction can be controlled with this potent, yet orthogonal reagent under mild ambient conditions. It proceeds in a matter of minutes, introducing up to sixty percent TDO moieties in the polymer backbone. The resulting polymers have a remarkable low-lying unoccupied orbital (LUMO), consequently exhibiting a small

band gap. I'll also discuss the investigation of small molecules' semiconducting properties by the Scanning Tunneling Microscope-based Breaking Junction method (STM-BJ).

Date: Thursday, November 3, 2016

Times: Social – 5:30 PM

Seminar – 6:00 PM

Place: CUNY Queensborough Community College, Science Building, S-111

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



LONG ISLAND SUBSECTION

Future Board Meeting:

Dates: Thursday, November 17, 2016

Times: 6:30 PM

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

Holiday seminar and election

Date: Thursday, December 1, 2016

Time: 5:30 PM

Place: Nassau Community College

PK

PETER K. DORHOUT

FOR

ACS PRESIDENT-ELECT

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OCTOBER

- Membership needs and benefits
- Career outlook and jobs
- Industry-academic partnerships
- Recognition for chemists



KANSAS STATE
UNIVERSITY

EMAIL PKDorhout@cox.net

TWITTER @PeterDorhoutACS

WEB www.peterdorhoutacs.com



SCAN TO VISIT MY WEBSITE

NY Section — National Chemistry Week News, see also page 18



Help the New York Section of
the American Chemical Society to celebrate
National Chemistry Week 2016
with the theme

“Solving Mysteries through Chemistry!”

- When:** Sunday, October 30, 2016 (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. FREE admission to NYSCI between 10-11 AM.
Who: Last year, activities were presented by 250 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 **sponsoring an activity table** at and/or **making a donation** to support the event, please contact **Dr. Ping Furlan** (furlanp@usmma.edu), **Dr. Scott Lefurgy** (Scott.T.Lefurgy@hofstra.edu), or **Mrs. Erin Wasserman** (illustrated poem contest coordinator, ewasserman602z@gmail.com). Please include activities highlighting the yearly theme, “Solving Mysteries through Chemistry!” 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/2016_ncw.php.

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



New York Local Section, American Chemical Society, <http://www.newyorkacs.org/>



ChemExpo 2016
Saturday, October 22, 2016
Call for Sponsorship

On Saturday October 22nd, the North Jersey Section of ACS will be holding its 22nd 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.

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:



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

Mita Chaki - mitachaki@gmail.com

Please fill out the following form and return to Monica Sekharan at 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. 22nd (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: Monica Sekharan (monicasekharan@njacs.org)

Call for Nominations

2017 ESSELEN AWARD FOR CHEMISTRY IN THE PUBLIC INTEREST

The Northeastern Section of the American Chemical Society is pleased to invite nominations of worthy candidates for the Gustavus John Esselen Award for Chemistry in the Public Interest. This award recognizes a chemist for outstanding achievement in scientific and technical work that contributes to the public well-being. The Awardee should be a living resident of the United States or Canada at the time of nomination, and the significance of this work should have become apparent within the five years preceding nomination.

The award consists of a \$5000 prize and a medal of recognition. Travel expenses incidental to the conferring of this award will be reimbursed. The presentation takes place at an award ceremony in April at Harvard University, followed by a formal address by the awardee. 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. **The tentative date for this ceremony is April 27, 2017.**

The award was established in 1987 to honor the memory of Gustavus John Esselen, a distinguished member of the Northeastern Section. The first awardees were F. Sherwood Rowland and Mario J. Molina, who subsequently received the Nobel Prize. Several other recipients of the Esselen Award have also been Nobel awardees.

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.

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 Jeananne Piper Grady, 11 Thaxter Street, Hingham, MA 02043. All nomination material must be consolidated into a single electronic pdf file and emailed to karl@amgen.com with a copy to JPiperGrady@gmail.com. **The due date is October 15, 2016.** Joint nominations are acceptable. The Committee will review the nominations and the award recipient will be notified by the first of February, 2017.

Further information is available at www.nesacs.org/awards_esselen.html. This announcement is to seek nominations of colleagues whose work meets the criteria and purpose of the award.

The deadline for nominations is October 15, 2016.



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, 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.

Call for Applications

WILLIAM H. NICHOLS FELLOWSHIP

The New York Local Section of the American Chemical Society is proud to announce the continuation of a summer research opportunity for undergraduates, the William H. Nichols Fellowship. The Nichols Fellowship is open to all college students majoring in chemistry (broadly defined) who will perform research over the summer before graduation at an institution in the NY Local Section geographic area. Each Nichols Fellow receives a stipend of \$5,000 to support them as they perform their research, and is expected to submit a two-page written report at the end of the summer and present their work at the 2018 Undergraduate Research Symposium. In addition, each Nichols Fellow and their mentor will be invited as honored guests to the 2018 William H. Nichols Award Banquet.

Applications are available online at www.newyorkacs.org/NicholsFellowship.php and are due **December 15, 2016**. All applicants will be notified by **March 1, 2017**.



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

or from your school guidance office.

Return Application To

Freddie and Ada Brown Award, NJACS Section Office, 49 Pippens 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 or (908) 239-1515

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 and visit our website at Students2Science.org

See also "Call for Help", page 23.

Others

AIDSfreeAFRICA

AIDSfreeAFRICA signed a five year collaboration agreement with the Catholic University of Cameroon, Bamenda. The agreement stipulates a mutual agreement where the University contributes space and security and AIDSfreeAFRICA will focus much of its attention on improving STEM education and building a quality control laboratory with the capacity to test pharmaceutical drugs, water and maybe even food stuffs.

AIDSfreeAFRICA is calling on science professors to submit proposals if you want to come to Cameroon to teach a four-week course equivalent to one semester. The Catholic University is a safe campus with accommodations on site. "Like" AIDSfreeAFRICA on facebook to get an impression of the environment.

Also consult our website
www.AIDSfreeAFRICA.org.

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Fr. Michael Suh Niba, Vice Chancellor CATUC, Bamenda (where CATUC stands for Catholic University of Cameroon), with Rolande Hodel.

(Photo courtesy of Rolande Hodel)

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Ad Index

ANALYTICAL

Micron Inc.	18
NuMega Resonance Labs.	27
Quantex	5
Robertson Microlit Labs	4

EQUIPMENT

Eastern Scientific Co.	27
-----------------------------	----

GENERAL

Peter K. Dorhout	20
ACS-NY/NoJ Sections	7
ACS-NY/NoJ Sections	27
ACS-NY/NoJ Sections	27
ACS-NY/NoJ Sections	27