

THE Indicator

APRIL 2014

Vol. 95 • No. 4

ISSN0019-6924

Marilyn “Bobbi” Gorman North Jersey Section Outreach Volunteer of the Year



See article on page 16.

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Press Release

Ronald Breslow to Receive 2014 American Institute of Chemists (AIC) Gold Medal

Research Pioneer, Prolific Author To Be Honored for More Than a Half Century of Leadership

The American Institute of Chemists (AIC) today announced that Ronald Breslow, S. L. Mitchill Professor of Chemistry and University Professor at Columbia University, has been selected to receive the 2014 American Institute of Chemists (AIC) Gold Medal. The award ceremony will be part of Heritage Day 2014 on Thursday, May 15, at the Chemical Heritage Foundation.

"Ronald Breslow combines extraordinary talent in research with a rare ability to tell the story of chemistry to wide and diverse audiences," said David Manuta, AIC president. "He is credited with creating the fields of biomimetic systems and nonbenzenoid aromatic chemistry. His work in these areas has led to important breakthroughs in the fight against cancer by modulating gene transcription in cancer cells."

Breslow is the author of more than 400 publications, including a widely acclaimed 1996 book, *Chemistry Today and Tomorrow: The Central, Useful, and Creative Science*. In addition to numerous honors and awards, he holds the National Medal of Science and has been named one of the top 75 contributors to the chemical enterprise in the past 75 years. He is an accomplished pianist whose public repertoire extends from popular songs to improvisational jazz. Colleagues continue to marvel at the breadth and depth of his intellect and his passion and enthusiasm for chemistry.

Ronald Breslow has an A.B. in chemistry, an M. A. in medical science, and a Ph.D. in chemistry from Harvard. He spent a year with Lord Todd as a postdoctoral researcher in Cambridge, England, before coming to Columbia University. He is now a professor of chemistry and biology at Columbia, one of twelve university professors, and a former chairman of the chemistry department.

Professor Breslow will be the featured speaker at the Thursday, April 3 meeting of the Long Island Subsection to be held at Queensborough Community College. See the details of this meeting on page 7 of this issue.

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

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The Indicator (ISSN0019-6924) is published 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. Periodicals Postage Paid at Homosassa, Florida and at additional mailing offices.

POSTMASTER: Send address changes to American Chemical Society, Department of Member and Subscriber Services, THE INDICATOR, P.O. Box 3337, Columbus, OH 43210, or e-mail: service@acs.org.

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. Subscription price included in dues paid by New York and North Jersey Section members. Distributed electronically to members through the website www.TheIndicator.org and monthly emailings. Non-members are invited to read it online. Members should register their email addresses at www.acs.org/editmyprofile.

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

April Calendar

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Thursday, April 3, 2014

Brooklyn Subsection
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Thursday, April 3, 2014

Long Island Subsection
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Tuesday, April 8, 2014

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Tuesday, April 8, 2014

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Thursday, April 24, 2014

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Friday, April 25, 2014

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NORTH JERSEY SECTION

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Wednesday, April 23, 2014

Undergraduate Research Conference
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Sunday, April 27, 2014

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

**Deadline for items to be included in the
May 2014 issue of *The Indicator* is
March 20, 2014**



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THIS MONTH IN CHEMICAL HISTORY

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

His obituary in the *Journal of the American Chemical Society* (May 26, 1954) begins "Who was Wilder Dwight Bancroft?" By 1954 this significant American physical chemist was a virtually forgotten man. I had forgotten about him until I recently re-read John W. Servos' excellent "Physical Chemistry from Ostwald to Pauling: The Making of a Science in America" (Princeton University Press, 1990). In this volume Servos gives a full account of Bancroft's career and its significance. I have drawn upon this account and also Servos' extended biographical memoir for the National Academy of Sciences (1994) which is available on-line.

Bancroft came from a distinguished family; his grandfather was a diplomat, a cabinet member, and a historian. Wilder was born in 1867 in New England, attended private schools, and entered Harvard where football competed with academics for his interest. However his interest in science led him to take electives in that area and he graduated with a degree in chemistry and stayed on for a year as a laboratory assistant. He took courses from Josiah Parsons Cooke, who specialized in chemical physics, a relatively new field. (One of Cooke's students, who received his Ph.D. at the same time as Bancroft earned his bachelor's degree, was Theodore William Richards, the first U.S. chemist to be awarded the Nobel Prize in chemistry). Bancroft became interested in Cooke's area of interest and after two years working in organic chemistry he decided to join Ostwald's institute in Leipzig in 1890. After two years he presented his thesis on electrochemistry and then undertook a grand tour of European laboratories meeting Helmholtz and van't Hoff. Returning to Harvard he had hopes of a high level appointment, but it went to Richards. Consequently Bancroft accepted a position at Cornell in 1894. By 1903 he was a Full Professor, a rapid rise for those times.

Cornell was a developing research university in the 1890s. Bancroft, a lecturer who modeled the gentleman scholar, saw physical chemistry as a central science, but was not much attracted to its more mathematical aspects. He focused his interest on two qualitative guidelines to the behavior of systems: the Phase Rule of Gibbs; and Le Chatelier's principle. His researches investigated ternary solutions; and metals among others. He published one of the first books on the Phase Rule in 1897 and a year earlier he founded a new periodical, the *Journal of Physical Chemistry*, which appeared monthly from Ithaca, New York, and highlighted contributions in Bancroft's own field.

Bancroft's work, reported mainly in "his" journal, was not always well received. A.A.Noyes, a leading physical chemist, said of Bancroft's work on ternary systems (e.g. two immiscible liquids and a solute which distributes between them) which Bancroft analyzed using equations with four empirical constants "no physical significance whatever can be attached to such results"! Four empirical constants is enough to describe virtually any curve. Nevertheless Bancroft kept insisting that qualitative physical chemistry was an important segment of science.

To detail Bancroft's career would take much more than my space allocation. To quote Servos' summary:

"Bancroft brought to America a firsthand knowledge of the "Ionists" teachings about electrolytic dissociation, osmotic pressure, and electromotive force at a time when those teachings were still new and controversial.... he helped educate scores of chemists and took a leading role in founding the *Journal of Physical Chemistry*, the first English-language journal in its field. As its owner and editor from 1896 to 1933, Bancroft brought a sharp wit and shrewd judgment to bear on the work of his colleagues through hundreds of reviews and review articles. Although he earned enemies through his editorializing, even the victims of his criticism often found it impossible to resist his personal charm. He served two terms as president of the Electrochemical Society and, in 1910, he was elected president of the American Chemical Society."

Later in his career he made some largely ineffectual explorations of the chemistry of anesthesia. However his work on colloids, including a well-received textbook, was significant though he rejected the idea of macromolecules put forward by Staudinger and preferred to view colloids as aggregates of smaller particles.

Bancroft's career and life ended somewhat sadly. He had to cede control of his *Journal* to the ACS because of financial problems. He had a bad accident that led to physical handicaps. And his wife of 49 years, mother of five children, preceded him in death. When he died in 1953 this important pioneering American physical chemist was, indeed, an almost forgotten man.

New York Meetings

www.newyorkacs.org

NEW YORK SECTION BOARD MEETING DATES FOR 2014

The dates for the Board Meetings of the ACS New York Section for 2014 were chosen and approved at the September 2013 Board Meeting. The meetings are open meetings – all are welcome. If non board members would like to attend the meeting, please let the New York Section office know by emailing Mrs. Marilyn Jespersen at njesper1@optonline.net or calling the office at (516) 883-7510.

The 2014 Board Meetings will be held on the following Fridays at 6:00 PM at the College of Mount Saint Vincent, Benedicts (Founder's Hall), Riverdale, NY. Dr. Pamela K. Kerrigan will chair the meetings.

Friday, May 2

Friday, June 13

Friday September 19

Friday November 21

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



HUDSON-BERGEN CHEMICAL SOCIETY – JOINT MEETING WITH THE SIGMA XI CHAPTER OF RAMAPO COLLEGE OF NEW JERSEY

Re-inventing Green Chemistry: Alternative Histories for a Sustainable Science



Speaker:

Jody A. Roberts, PhD
Director
Center for
Contemporary History
and Policy Chemical
Heritage Foundation

What role does history play in the creation of more sustainable sciences? Dr. Jody Roberts examines the ways in which history, as we tell it, directs our actions in the present and shapes our possible futures. Roberts demonstrates the connection between imagining possible (sustainable)

futures and the ways in which we speak of our histories. Focusing on the specific case of green chemistry, Dr. Roberts examines the ways in which historical narratives are embedded in their identity, and outlines possible alternative narratives that might alter the science and politics involved in the creation of a more sustainable chemistry.

Roberts' work explores the intersections of emerging molecular sciences and public policy and the ways in which tensions brought about between the two get resolved. He received advanced degrees in science and technology studies from Virginia Tech, where he cultivated an interest in the practice of the molecular sciences and the ways in which they are shaped by internal architecture and design (e.g., technologies of the laboratory) and the politics of the broader world (e.g., chemical regulations). Those interests became the basis for the projects that Roberts conducts in the Center for Contemporary History and Policy at CHF. Roberts lectures in the Science, Technology, and Society Program at Drexel University and in the History and Sociology of Science Department at the University of Pennsylvania and is a senior fellow in the Environmental Leadership Program. Roberts holds an undergraduate degree in chemistry from Saint Vincent College and a Ph.D. from Virginia Polytechnic Institute and State University.

Date: Wednesday, April 2, 2014

Time: Lecture, light refreshments will be served - 1:00 – 2:00PM

Place: Alumni Lounge, SC-137
Ramapo College of New Jersey
Mahwah, NJ

For more information, please contact:
Dr. Jay R. Carreon, e-mail: jcarreon@ramapo.edu



BROOKLYN SUBSECTION

2014 Brooklyn Frontiers in Science Lecture – “Signaling Through DNA”

Speaker: Dr. Jacqueline Barton

The Brooklyn subsection of the NY/NJ ACS proudly presents Dr. Jacqueline Barton as speaker for the 2014 Brooklyn Frontiers in Science lecture. Dr. Barton is a native New Yorker and currently Chair of the Division of Chemistry and Chemical Engineering at the

California Institute of Technology. Dr. Barton attended Barnard College and received a Ph.D. in Inorganic Chemistry at Columbia. After a post-doctorate at Bell Laboratories and Yale University, she became an assistant professor at Hunter College, associate professor of chemistry at Columbia, joined the faculty at Cal Tech in 1989 and in 2009, she began her term as Chair of the Division. Dr. Barton has won many prestigious awards, including the 2010 National Medal of Science from President Obama. For more information on Dr. Barton please visit caltech.edu/BartonBiography.

Dr. Barton will present Signaling Through DNA. We think of the DNA double helix as the library of the cell, encoding all that we are. But the DNA helix can also serve as a conduit for the flow of electrons, a medium for signaling. Like a stack of copper pennies, the stack of DNA base pairs can be conductive. Many experiments have now shown that double helical DNA can serve as a conduit for the transport of electrons over long molecular distances. Importantly, since DNA conductivity depends upon base pair stacking, we can utilize this chemistry in designing sensitive DNA-based diagnostic sensors. But, within the cell, do electrons and holes migrate along the DNA helix? We are also finding that this chemistry is used by Nature in finding where DNA is damaged and in need of repair, an important mechanism in maintaining our genetic library against the onslaught of damage associated with aging, cancer and oxidative stress.

Date: Thursday, April 3, 2014

Time: 5:30 - 7 PM

Place: Pfizer Auditorium
NYU Polytechnic School of
Engineering
5 Metrotech Center
Brooklyn NY

Cost: There is no charge for this lecture, but registration is required. Web registration is at:

<http://www.newyorkacs.org/meetings/Brooklyn/Frontiers.php>

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LONG ISLAND SUBSECTION

"How Did It All Get Started? Prebiotic Chemistry. The Origin of Terrestrial Homochirality in Amino Acids and Nucleosides"

Speaker: Professor Ronald Breslow
Columbia University

Work on artificial enzymes that perform the synthesis of amino acids from ketoacids led us to examine the properties of alpha-methyl amino acids. Recently these have been identified as components of carbonaceous chondritic meteorites such as the one that landed near Murchison Australia in the last century. These unusual amino acids arrive with excesses of stable chirality, all of the L configuration, and we will describe how they could have been formed. We showed that they can generate normal amino acids under credible prebiotic conditions, and with some chirality transfer. We also showed that the modest chirality that resulted could be amplified to high enantioexcesses of normal L aminoacids, using either thermodynamic or kinetic processes. We have shown that we can also amplify modest excesses of D nucleosides to high enantioexcesses by related processes. Finally, we have also shown the likely origin of D sugars. The resulting amino acids, sugars, and nucleosides can then be suitable materials for the creation of life.

Ronald Breslow is a professor of chemistry and biology at Columbia University, one of twelve university professors, and a former chairman of the chemistry department. He received the Mark Van Doren Medal of Columbia University and the Columbia University Great Teacher Award. He was president of the American Chemical Society in 1996.

Our monthly seminars cover a broad range of topics and are open to all. Students are encouraged to attend.

Date: Thursday, April 3, 2014

Times: Coffee/Social 5:30 PM

Seminar 6:00 PM

Place: Queensborough Community
College

Science Building, Room S-112

Cost: Seminar is free and open to all

Times: Dinner 7:00 PM

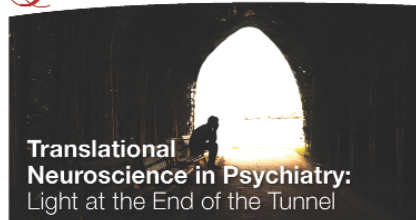
Place: A nearby restaurant

Cost: \$25.00 per person

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

Contact: Professor Marlon Moreno,
MMoreno@qcc.cuny.edu

**BIOCHEMICAL TOPICAL
GROUP — JOINT MEETING
WITH THE NYAS BIOCHEMICAL
PHARMACOLOGY DISCUSSION
GROUP**



**Translational Neuroscience in Psychiatry:
Light at the End of the Tunnel**

Organizers: Siva Digavalli, PhD
Bristol-Myers Squibb
Ken Jones, PhD
Forest Research Institute
Frank Menniti, PhD
Mnemosyne Pharmaceuticals,
Inc.

Jennifer Henry, PhD
The New York Academy of
Sciences

Speakers: Daniel C. Javitt, MD, PhD
Columbia University and
Nathan Kline Institute

Gregory Light, PhD
University of California
San Diego

Steven J. Siegel, MD, PhD
University of Pennsylvania

Siva Digavalli, MD, PhD
Bristol-Myers Squibb

John H. Krystal, MD
Yale University

Andrew F. Leuchter, MD
University of California
Los Angeles

Eva E. Redei, PhD
Northwestern University

Dan V. Iosifescu, MD, MSC
Icahn School of Medicine at
Mount Sinai

Recent breakthrough insights from clinical studies are illuminating the neurobiology of psychiatric disorders. This symposium explores differences in sensory processing,

imaging, and other biomarkers that may translate findings to animal models.

Date: Tuesday, April 8, 2012

Time: 8:30 AM – 4:30 PM
(reception to follow)

Place: 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 \$30 or \$15 (for students and post-docs). Please select the appropriate non-member Registration Category and use the Priority Code ACS. Non-members may attend for a fee of \$85 (corporate), \$65 (non-profit or academic) or \$45 (students and post-docs).

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

www.nyas.org/TranslationalNeuroscience

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



**NY NANOSCIENCE DISCUSSION
GROUP**

2013-2014 Sessions.

*Hosted by the New York University
Department of Chemistry*

Speakers to be announced.

The NYNDG is an ACS Topical Group that meets in the New York University Department of Chemistry. Sessions feature three 30-minute presentations on nanoscience, one each with strong orientation in biology, chemistry, and physics/applied mathematics.

Mark Your Calendars:

Date: Tuesday, April 8, 2014

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

Topical Group History:

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

**Learn more about the
New York Section at
www.NewYorkACS.org**

WESTCHESTER CHEMICAL SOCIETY

Special Seminar – “Micro-Tools to Study Single-Cell Immunology”

Speaker: Qing Song

Department of Chemical and Biomolecular Engineering
Polytechnic Institute of NYU

Single-Cell Immunology:

The frequencies of antigen-specific CD4+ T cells in samples of human tissue have been difficult to determine accurately *ex vivo*, particularly for autoimmune diseases such as multiple sclerosis or type 1 diabetes. Conventional approaches involve the expansion of primary T cells *in vitro* to increase the numbers of cells, and a subsequent assessment of the frequencies of antigen-specific T cells in the expanded population by limiting dilution or by using fluorescently labeled tetramers of peptide-loaded major histocompatibility complex (MHC) receptors. Here we describe an alternative approach that uses arrays of subnanoliter wells coated with recombinant peptide loaded MHC class II monomers to isolate and stimulate individual CD4+ T cells in an antigen-specific manner. In these experiments, activation was monitored using microengraving to capture two cytokines (IFN γ and IL-17) released from single cells. This new method should enable direct enumeration of antigen-specific CD4+ T cells *ex vivo* from clinical samples. This method will be applied to identify, quantify and characterize the cancer stem cells.

Concurrent Detections of Multiple Proteins on Single-cells to Reveal Cell-Cell Heterogeneity:

Single biological measurements are not capable of truly characterizing even the simplest systems. Proteins constitutively function within networks, pathways, complexes and families. The activity of an individual

protein depends not only on its quantity but also on the interacting networks. To understand complex molecular outcomes, it is necessary to determine how individual parts are integrated in time and space to perform complex, dynamic cellular functions. The level of complexity, with numerous variables acting at the same time, requires multi-parametric and dynamic investigation of a large number of single cells. We applied multi-spectral imaging and achieved concurrent multiple protein detection (up to ten proteins simultaneously). Gaussian distributions were found to fit the histograms of expression levels of proteins of interest. Noise and noise strength of histograms were influenced by the inflammatory stimulation conditions. Quantitative measurements of noise, noise strength and correlation coefficients revealed the cell-cell heterogeneity.

Qing Song is an Industry Assistant Professor in the Department of Chemical and Biomolecular Engineering at NYU-POLY. She received her Ph.D. in Chemical Engineering at City College of New York, City University of New York in 2004. She conducted her postdoctoral trainings with Professor Martin Yarmush at Massachusetts General Hospital and Professor J. Christopher Love at MIT prior to joining the University of New Hampshire in 2009. Dr. Song's current research focus on using microtools to characterize secretomic immune profiles of single cancer stem cells collaborated with Professors George Miller and Iannis Aifantis at NYU Medical Center.

Date: Thursday, April 24, 2014

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, (914) 393-6940, PaulWDillon2@hotmail.com



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HIGH SCHOOL TEACHERS TOPICAL GROUP

Demo Derby

An evening of non-stop demonstrations by the attendees (5-8 minutes max.)

Date: Friday, April 25, 2014
Times: Social and Dinner — 5:45 PM
Place: M&G Pub
 (Murphy and Gonzales
 21 Waverly Place (at Green
 Street, North-east corner)
 New York, NY
 No reservations required
Times: Meeting 7:15 PM
Place: New York University
 Silver Center Room 207
 32 Waverly Place (South-east
 corner Washington Sq. East)
 New York, NY

Presenters should be prepared to clean up and to use appropriate safety procedures. There is no water supply or drain in the room.

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: For those who prefer indoor attended parking, it is available at the Melro/Romar Garages. The entrance is on the west side of Broadway just south of 8th Street, directly across from Astor Place. It is a short, easy walk from the garage to the restaurant or meeting room.



LONG ISLAND SUBSECTION 14TH ANNUAL CHEMISTRY CHALLENGE

**Chemistry General Knowledge
Competition Between Two- and Four-
Year College Students**

The Chemistry Challenge consists of multiple choice questions covering ~75% General Chemistry and 25% Organic Chemistry. Each college can participate by sending student teams consisting of three members per team (maximum of three teams per college). The questions are timed and the students will discuss the questions among team members before submitting their answers electronically. Students can use scrap paper and a scientific calculator (no graphing calculators). Medals will be given to the top three teams in each student category (2- and 4-year colleges). In addition, the winners will also receive other gifts contingent on the sponsorship of the event. The atmosphere is exciting and brings colleges, students, and faculty mentors together. So the question is, "Do you accept the challenge?"

Sponsorship: The event calls for sponsorship from interested companies and organizations. The benefits of sponsorship are: publicity for the company, invitation for company representatives to attend the event, and access to a place to advertise their products.

Deadline: The deadline for company sponsorship and team submission with names of the participants is **April 19**. There should be a maximum of three teams per school and please include whether each student is a 2-year (freshman or sophomore) or 4-year (junior or senior) student. Late registration will be accepted only if there is still vacancy.

Contact: Please direct all registration of teams to Paul Sideris at psideris@qcc.cuny.edu and all sponsorship participation to Sujun Wei at swei@qcc.cuny.edu. Directions to campus and parking information will be sent to all registered teams and sponsors under separate cover.

Date: Friday, April 25, 2014
Times: Dinner 5:00 PM
 Chemistry Challenge 6:00 PM



Chemistry Challenge 2013 Group Picture

Place: Science Building
Queensborough Community College
222-05 56th Avenue
Bayside, NY

For more pictures, visit:
<http://www.qcc.cuny.edu/chemistry/chemchallenge2013.html>

For the video, visit: <http://www.youtube.com/watch?v=nNBZ5yuUhrw>



THE HUDSON-BERGEN CHEMICAL SOCIETY, SIGMA XI CHAPTER AND THE SCHOOL OF NATURAL SCIENCES OF FAIRLEIGH DICKINSON UNIVERSITY

The 16th Annual Undergraduate Research Symposium

This is a forum for undergraduate students and their faculty mentors from colleges and universities that participate in the subsection's activities to present the results of their research. Outstanding graduating students are also being recognized (they receive the Hudson-Bergen Chemical Society Award consisting of a certificate and a book). All the presenters will receive certificates and a book. Students who wish to present posters must send an abstract via e-mail to mleonida@fdi.edu, by April 11, 2014. The abstract should be in MS Word format and must include the names and addresses of the student(s) and their faculty adviser(s) in addition to the title of the abstract. The abstract should not exceed 200 words. The name of the student presenting the poster should be underlined. The posters have to be self-supported. There is no registration fee.

This year's symposium also features the lecture:

Alternative Energy Sources: Enzymology That Is Essential for Making Lignin

Speaker: Erika Taylor, PhD
Wesleyan University

The ever-increasing global energy demand is projected to "exceed the estimates of proved (fossil-fuel) reserves" by 2030, according to the Department of Energy and the Society of Petroleum Engineers, thereby necessitating the development of alternative energy sources. In response to this challenge, research in the Taylor lab is exploring the enzymology that is essential for making Lignin a viable biomass source for the pro-

duction of energy and as a commodity chemical feedstock. In the first part of this work, LigAB from *Spingomonas paucimobilis* SYK-6 is being characterized within the context of its superfamily, the Type II extradiol dioxygenases. This enzyme catalyzes the oxidative ring opening of protocatechuate (3,4-dihydroxybenzoic acid or PCA) in a pathway allowing the degradation of Lignin derived aromatic compounds (LDACs). The promiscuity of this enzyme, along with a series of mutants designed to increase promiscuity, has been investigated. These results provide valuable catalytic insight into the reaction of LigAB and make it the first Type II EDO that is fully characterized both structurally and kinetically. The second component is the design and synthesis of a Lignin-based FRET-probe for the detection of Ligninase activity in environmental samples. To date, known Ligninase enzymes are not sufficiently proficient at depolymerizing Lignin for use in commercial processes. The probe we developed uses chemistry-triggerable fluorescence visualization to enable detection of Lignin depolymerization *in vivo*. Both projects are designed to improve the efficiency of Lignin degradation, and thereby pave the way for Lignin to become a petroleum substitute for energy and fine chemical production.

Erika Taylor earned her undergraduate degree in Chemistry at the University of Michigan, where she was trained in the synthesis of natural product analogues as enzyme inhibitors. She then went on to graduate school at the University of Illinois, Urbana-Champaign. Surrounded by corn fields, Dr. Taylor investigated enzymes in the Enolase superfamily under the guidance of Prof. John A. Gerlt. Her work during her Ph.D. included investigations of the physical organic chemistry of enzymatic rate acceleration and the investigation of natural occurring enzyme promiscuity. She then spent several years as a post-doctoral research associate at the Albert Einstein College of Medicine of Yeshiva University in the Bronx, where she worked with Prof. Vern L. Schramm. In the Schramm lab, Erika learned how to apply transition state theory to the design of tight-binding transition state analogue inhibitors for the development of new compounds for the treatment of malaria. Her work ranged from enzymology to malaria cell culture and even mouse based bioavailability studies. Dr. Taylor is currently an assistant professor of chemistry at Wesleyan University, where she continues to work at the interface between biology and

(continued on page 12)

THE HUDSON-BERGEN CHEMICAL SOCIETY - URS

(continued from page 11)

chemistry as she explores enzyme mechanism determination, gene function assignment, transition-state and mechanism-based inhibitor design, and directed evolution of enzyme function. Specifically, her research focuses on (1) the development of antimicrobials and (2) efforts to improve the efficiency of biomass to biofuel conversion.

Date: Friday, April 25, 2014

Times: Poster Session 5:00 PM
Dinner 6:00 PM
Awards and Lecture 7:00 PM

Place: Jeepers Café
Fairleigh Dickinson University
Teaneck, NJ

Cost: \$20.00 for dinner (dinner cost for presenters will be waived).

Reservations: Dr. Mihaela Leonida, (201) 692-2338, e-mail: mleonida@fdu.edu by **April 15, 2012**.



COME AND JOIN US CELEBRATE EARTH DAY WITH OUR 3rd ANNUAL

“WALK THE BROOKLYN BRIDGE”!



We will meet at Pace University at 12:00 PM and begin our celebratory “Earth Day Parade” across the Brooklyn Bridge at 1:00 PM. We will walk half-way across the bridge and do a turn-around at the Tower. Total distance is approximately 1 mile.

Participants will be provided with healthy snacks and Earth Day gifts. To register and for more information go to: <http://www.newyorkacs.org/meetings/EarthDay/CCED.php>

or contact Prof. JaimeLee Rizzo, CCED
Chair: jrizzo@pace.edu

Date: Saturday, April 26, 2014

Time: 12:00 PM – 3:00 PM

CANDIDATES FOR THE NEW YORK SECTION 2014 ELECTIONS

At the January Section-wide Conference, the Nominating Committee presented the candidates for office for the 2014 elections. The biographies of the candidates are posted on the New York Section website at <http://www.NewYorkACS.org>.

The Board of Directors extends a sincere thank you to the following candidates for accepting the nomination to run for office, and sincerely encourages ACS New York Section members to vote for them.

Electronic ballots will be sent to the membership in mid-April and voting will be conducted according to ACS guidelines for confidentiality and security. Members requesting paper ballots will receive them **by May 1, 2014**. If a member does not receive voting materials by May 1, please contact the New York Section Office at (516) 883-7510 or njesper1@optonline.net.

The candidates are:

Chair Elect for 2015

Dr. Alison Hyslop (St. John's University)
Dr. Ruben Savizky (The Cooper Union)

Secretary 2015-2016

Dr. Joseph Serafin (St. John's University)

Directors-at-Large 2015

Dr. Daniel Amarante (College of Mount Saint Vincent)
Dr. Ping Furlan (U. S. Merchant Marine Academy)
Dr. Alfredo Mellace (SUNY Nassau Community College)
Dr. Jun Shin (CUNY Queensborough Community College)
Dr. Justyna Widera (Adelphi University)

Councilor 2015-2017

Prof Emeritus Richard Cassetta (College of New Rochelle)
Dr. Ronald D'Amelia (Hofstra University)
Mrs. Jean Delfiner (NYC Board of Education)
Dr. Barbara Hillery (SUNY Old Westbury College)
Dr. Rolande Hodel (AIDSfreeAFRICA)
Dr. Robert Nolan (International Environmental Research)
Dr. George Rodriguez (Argeni, LLC)

THANK YOU, NEW YORK SECTION MEMBERS!

Since the New York Section incorporated electronic balloting, the voting rate has increased greatly. This year we hope to do even better. Show your support and please vote.

Prior to the election, you will receive ONE email message asking if you want to receive a paper ballot this year. Please respond **ONLY IF YOU WANT A PAPER BALLOT**. Otherwise, you will receive an electronic ballot in mid-April with a **deadline of May 31**. Two voting reminders will be sent also for the ballot. The voting is confidential and secure, following ACS voting guidelines. Thank you, in advance, for voting in the 2014 New York Section elections.



62ND ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM

The New York Chemistry Students' Association Student Member Committee — New York Section American Chemical Society

Keynote Address: "Structure-Facilitated Bioengineering of Antivirals and Antibiotics to Combat Global Health Threats"



Keynote Speaker:
Dr. Tina Iverson
Departments of
Pharmacology &
Biochemistry
Vanderbilt University

Nature is the world's most venerable chemist, with bacteria, fungi, and plants all able to biosynthesize complex secondary metabolites that are difficult to replicate by organic synthesis (see, for example, **Fig. 1**). Many natural products have potent antimicrobial activity, which we hope to harvest for clinical use. Unfortunately, many of these natural products are also associated with undesirable pharmacological properties, such as organ toxicity. Chemical derivatization is a common method to alter the pharmacology of a compound and reduce side effects, however, most natural products are challenging to synthesize or derivatize in the laboratory due to limitations in chemical

methods. Accordingly, improving methods of chemical synthesis could increase the arsenal of compounds that we use to treat life-threatening infections.

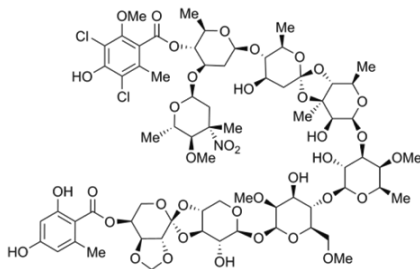


Fig. 1. Ziracin™. One example of a potential antibiotic where the natural complexity makes it prohibitively challenging to synthesize or chemically modify. Ziracin is a present target of interest in the laboratory.

Significant Dates for 62nd URS:

Deadline for Early Registration - **March 31, 2014**

URS Date - **May 3, 2014** at St. John's University, Queens, NY

2014 Co-chair: Dr. Joseph Serafin

2014 Co-chair: Dr. Yolanda Small

2014 Co-chair: Dr. Paul Sideris

2014 Co-chair: Dr. Sharon Lall-Ramnarine



EMPLOYMENT AND PROFESSIONAL RELATIONS COMMITTEE OF THE NEW YORK SECTION

To Human Resources Departments in Industry and Academia

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

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

WESTCHESTER CHEMICAL SOCIETY

Distinguished Scientist Award and College Student Achievement Awards Dinner Meeting: Excimer Laser Surgery - The Foundation for Laser Refractive Surgery and Future Applications

Speaker: James J. Wynne, PhD
Program Manager
Local Education Outreach (LEO)
IBM T. J. Watson Research Ctr.
Yorktown Heights, NY

In 1981, experimenting on leftover Thanksgiving turkey, my IBM colleagues and I discovered excimer laser surgery, laying the foundation for the laser refractive surgical procedures, LASIK and PRK, procedures which more than 25 million people have undergone to correct myopia, astigmatism, and hyperopia. For this discovery, in 2013 we were awarded both the National Medal of Technology and Innovation and the National Academy of Engineering's Russ Prize.

In 1983, while irradiating the skin of live guinea pigs, my colleagues and I discovered that far ultraviolet radiation from an argon fluoride (ArF) excimer laser failed to remove (ablate) tissue after bleeding commenced. The explanation is that the ArF laser radiation is strongly absorbed by an aqueous salt solution, as found in blood, through the process of electron photodetachment from hydrated chloride ions. Such an electronic excitation does not produce heat. We now apply this knowledge to propose a novel technique to debride necrotic tissue associated with burns, decubitus, venous stasis, and neuropathic ulcers, without causing collateral damage to adjacent and underlying viable tissue. We envision a "smart scalpel," enabled by the intrinsic advantage afforded by non-thermal absorption of ArF laser light by aqueous chloride ions.

Dr. James Wynne obtained his AB, MA and PhD, all in Physics, from Harvard University. His thesis work, on nonlinear optics, was done under the supervision of Professor Nicolaas Bloembergen. He started work on nonlinear spectroscopy using lasers while still at Harvard and continued this type of work after joining IBM. His research has covered different aspects of using lasers to explore novel phenomena (e.g., resonantly-enhanced ionization), to analyze matter (e.g., atomic spectroscopy), and to process materials (e.g., laser etching of biological specimens). More specifically, he has investigated nonlinear optics of

semiconductors and insulators, coherent infrared and vacuum ultraviolet generation in atomic vapors, multiphoton ionization spectroscopy of atomic vapors, nonlinear optical measurements of atomic oscillator strengths, applications of multichannel quantum defect theory, novel laser systems, excimer laser etching of biological tissue, laser-induced-fluorescence detection of arterial lesions, and cluster science.

Since 1990, he has been Program Manager, Local Education Outreach – <http://www.watson.ibm.com/leo>, at the IBM Thomas J. Watson Research Laboratory. In this capacity, he marshals the resources of the IBM Research Center to enhance science and mathematics education in our local schools. He serves as a leader, originator, communicator, catalyst, matchmaker, organizer, and facilitator, opening up pathways of communication between the employees of his laboratory and the educational community. Furthermore, he keeps traffic flowing in both directions along these pathways. To further his objective of helping all young Americans to become technically literate through improved science and mathematics education, he has become involved in national education reform activities through his membership and activities on the Education Committee and Forum on Education of the American Physical Society, the Education Council of the Optical Society of America, the Mathematics Sciences Education Board of the National Research Council, the Advisory Board to the US Physics Team, the American Association of Physics Teachers and the National Council of Teachers of Mathematics.

Since 2004, he has served as global coordinator for IBM's participation in Engineers Week (recently renamed DiscoverE - <http://www.discovere.org>), an international promotion of the engineering professions. IBM's primary focus for Engineers Week is to interact with pre-college school students to introduce them to the opportunities of careers in engineering, technology and science. For the 2012 EWeek campaign, more than 5400 technical professionals were sent into classrooms around the world, where they engaged over 200,000 students. These numbers were exceptional, although they were exceeded during the 2008 EWeek campaign, when IBM served as Corporate co-chair for EWeek, and more than 6500 IBM technical professionals engaged over 250,000 students.

Dr. Wynne has won numerous awards including the Eastern New York Intellectual Property

Law Association Award 2001 Inventor of the Year, the Optical Society of America 2004 R.W. Wood Prize, the New York Intellectual Property Law Association 2009 Inventor of the Year, the 2010 Rank Prize for Opto-Electronics, the 2011 National Medal of Technology and Innovation (for the pioneering discovery of excimer laser ablative photodecomposition of human and animal tissue, laying the foundation for PRK and LASIK, laser refractive surgical techniques that have revolutionized vision enhancement), the National Academy of Engineering 2013 Fritz J. and Dolores H. Russ Prize (for the development of laser ablative photodecomposition, enabling LASIK and PRK eye surgery), as well as at least five internal IBM awards. In 2002 he was inducted into the National Inventors Hall of Fame. He has more than 75 publications and more than 15 patents (issued or applied for).

Date: Thursday, May 1, 2014

Times: Social Hour 5:00 PM
Lecture and Awards 6:00 PM
Dinner 7:00 PM

Place: Pace University
The Campus Center, Butcher Suite
861 Bedford Road – Entrance #2
Pleasantville, NY

Cost: Students \$20
All Others \$30

RSVP Required – pwrc@earthlink.com

For more information, contact Paul Dillon:
E-Mail PaulWDillon2@hotmail.com
Phone (914) 393-6940

For Pace University information:
eweiser@pace.edu



WESTCHESTER CHEMICAL SOCIETY

On February 12, 2014 Mr. Joseph Landolina, a joint BS/MS student at New York University's Polytechnic School of

Engineering (formerly Polytechnic Institute of Brooklyn and Polytechnic University), who is also a co-founder and CEO of a corporation, Suneris, Inc., which markets his invention, VETI-GEL™, in the veterinary medicine market, spoke to the Westchester Chemical Society. VETI-GEL is an agent that stops bleeding in seconds and was invented by Mr. Landolina at the age of 17. It is packaged in sterile syringes and applied directly onto the wound. The gel works by activating three methods of hemostasis simultaneously: holding in its own pressure, activating the body's platelets, and forming a fibrin clot, all on the wound surface. Alternative products, which generally only activate one or two methods of hemostasis, are slower. All components of the gel have been individually approved by the FDA and the product is manufactured under GMP (Good Manufacturing Practices) regulations. Joe described devices they have developed to measure the clotting time induced by the gel. These were required because the gel suppresses bleeding so much more quickly than alternatives that standard devices were inadequate. Mr. Landolina's talk, given at the Westchester Community College in Valhalla, N.Y., was followed by an interesting question and answer, and discussion, session. Several attendees, including the speaker, then enjoyed a dinner together at a nearby restaurant. I was unable to attend the meeting but our chairperson, Rolande Hodel commented "Joe did a fantastic job. I believe we have witnessed a young man of whom we will hear many more great things". Similarly, another board member, Jean Delfiner said "Joe is a very impressive speaker with good short videos and slides". (Both quotes slightly paraphrased.) Further information is available from Suneris' website (<https://suneris.com>). The photo below is of Mr. Landolina and the WCS board of directors attending the meeting.



Jean Delfiner, Joan Laredo-Liddell, Rolande Hodel and Joseph Landolina

(Photo courtesy of Rolande Hodel)

NoJ Section Outreach Volunteer of the Year

The ACS Committee of Community Activities hosts a recognition program to honor the extensive outreach effort made by volunteers within their local section. This program, entitled Local Section Outreach Volunteers of the Year gives each section an opportunity to recognize one outstanding individual who demonstrates extraordinary outreach volunteer service to the section. This year, the North Jersey Section is proud to recognize, **Marilyn "Bobbi" Gorman** for her outstanding efforts.

Bobbi Gorman's extraordinary outreach encompasses National Chemistry Week (NCW), Project SEED and Teacher Affiliates. Bobbi has coordinated an exceptional NCW program at Liberty Science Center for more than 8 years. Under her leadership corporate, collegiate and high school volunteerism tripled. Attendance by the public has increased significantly each year. Because of her initial efforts a wonderful rapport with LSC has been established. To communicate the importance of chemistry within our lives and to promote NCW among the schools, Bobbi initiated the NCW illustrated poem contest within the section. Over the years, North Jersey has had several national winners..

Serving as Teacher Affiliate chairperson twice, Bobbi has mentored other chairpersons and served as an officer in several capacities. She organizes ChemTAG, a monthly meeting of area chemistry teachers who share activities and demonstrations and sees that announcements are sent out in a timely manner. Although these activities may seem like a fulltime job, Bobbi continues to assist with all the Teacher Affiliate workshops. A true measure of her outreach may be seen at the NJ Science Teachers Convention. There she promotes ACS resources and events and the NCW activities within the section. A chemistry teacher who attended her workshop last fall. wrote, " THANK YOU for telling me about the Hach grant opportunity when I attended your presentation. I applied for the grant and actually got it! I appreciate your help!"

Her Project SEED colleagues have the utmost admiration and appreciation for all the effort she puts forth by assisting the section coordinator, encouraging students into the program and chaperoning students to national meeting poster sessions.

Bobbi will be honored at the annual North Jersey Section Awards and Recognition Dinner on May 23, 2014, at Fairleigh Dickinson University. She and volunteers from other sections will be highlighted in *Chemical & Engineering News* (C&EN).



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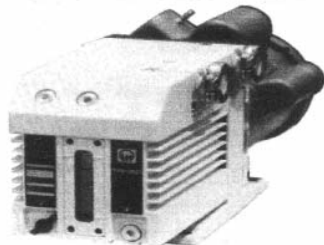
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North Jersey Meetings

<http://www.njacs.org>

NORTH JERSEY EXECUTIVE COMMITTEE MEETING – JOINT MEETING WITH NORTH JERSEY CHROMATOGRAPHY GROUP

Section officers, councilors, committee chairs, topical group chairs, and section event organizers meet regularly at the Executive Committee Meeting to discuss topics of importance to running the section and representing the membership. The April meeting will be held in conjunction with the North Jersey chromatography Group. All ACS members are welcome to attend this meeting and to become more involved in section activities.

Date: Wednesday, April 23, 2014

Time: TBD

Place: Somerset Doubletree
200 Atrium Drive
Franklin Township, NJ

Cost: \$5.00 - pizza dinner

Directions can be found using map quest and the address above.

Reservations: call (973) 822-2575 or email njacsoffice@aol.com prior to **Wednesday, April 16, 2014**.

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



CAREERS IN TRANSITION MEETINGS

Job Hunting??

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

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

Date: Monday, April 14, 2014

Times: Meeting 5:30 - 9:00 PM
Pizza snack and soda 6:30 PM

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

Cost: \$5.00 for pizza and soda

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.



NMR TOPICAL GROUP

Speaker: Prof. Heinrich Roder
Fox Chase Cancer Center
Philadelphia, PA

Date: Wednesday, April 16, 2014

Place: Princeton University

For details: <http://www.njacs.org/topical-groups/nmr-spectroscopy>



CHROMATOGRAPHY TOPICAL GROUP

Date: Wednesday, April 23, 2014

For details, see under Executive Meeting.



The New Jersey Pharmaceutical Quality Control Association (NJPCA) invites you to attend our Luncheon (11:30 AM to 2:00 PM) Monthly Meetings for 2013-2014; the following dates have been set for the upcoming year. Please mark your calendars!

January through May 2014	Our QA Certification Training Course (evening weekly sessions)	Registration will begin in the Fall of 2013
March 18, 2014	Monograph Harmonization: Throwing Down the Gauntlet	Speaker: Mark Wiggins
April 8, 2014	Rapid Micro Testing vs. Traditional Micro Testing (evening discussion panel)	Speakers: Dr. Daniel Prince, Dr. Scott Sutton, Dr. Michael Miller
May 21, 2014	FDA Conference More details to follow	Speakers: details to follow

Future updates on meeting information can also be found on the website (topics and speakers):
www.NJPCA.org

NoJ SECTION'S 66th ANNUAL UNDERGRADUATE RESEARCH CONFERENCE

The Sixty-Sixth Annual Undergraduate Research Conference provides an opportunity for talented undergraduate students in the North Jersey Section to give an oral presentation on their research results. All undergraduate students in the North Jersey Section are invited to participate in this very rewarding event. The research presentations will be judged by local chemists working in industry or academia and the student giving the best presentation will be given the 2014 Jean Asell Duranna Award. In addition the top three presenters will be awarded cash prizes. The student award winners and their advisors will then be invited to attend the North Jersey Section's Annual Awards Dinner held on Tuesday, May 14, 2014 in

Lenfell Hall on the Fairleigh Dickinson University campus in Madison, NJ.

Abstract Information: Clearly indicate the title of the presentation and all authors. Abstracts must be no more than 200 words and need to be submitted as a word document attached to an email to Matthew Mongelli at mmongell@kean.edu

Abstracts deadline is Tuesday April 15, 2014

Date: Friday, April 25, 2014

Times: Noon until 5:00 PM

Place: Kean University
STEM Building
Jules Irving Schwartz Lecture Hall
Room 221
Union, NJ

For more information about this event contact Matthew Mongelli at mmongell@kean.edu



The North Jersey Section of the American Chemical Society is partnering with Turtle Back Zoo for a **Party for the Planet** to commemorate Earth Day. There's plenty to see and hands-on-activities to do. Bring your families or just you and come see your favorite animals and discover the chemistry behind



Where: Turtle Back Zoo, 560 Northfield Avenue, West Orange, NJ

When: Sunday, April 27th, 2014

TIME: 11 am – 4 pm

COST: <http://turtlebackzoo.com/admission-hours/>

DIRECTIONS: <http://turtlebackzoo.com/directions/> - Parking is free!

QUESTIONS?? Contact Amber (afcharleb@gmail.com)

BORON IN THE AMERICAS (BORAM) XIV – AT RUTGERS UNIVERSITY, NEWARK CAMPUS



Date: Sunday-Thursday, June 15-19, 2014

As a biannual international conference, the BORAM conference attracts participants working in areas related to any of the many facets of boron chemistry (pharmaceutical, materials, medicinal, inorganic structural). The goal of this conference is to bring together scientists with an interest in the chemistry and applications of boron-containing compounds, to promote cross-fertilization between disciplines, and to provide a forum for sharing and discussing the latest developments. Examples of topics that will be discussed include:

New Synthetic Methods

Borates and Boron Clusters

Organoboranes

Boron-containing Polymers

Boron-containing (Nano)Materials

Applications in Organic Synthesis

Applications in Organic Electronics

Biomedical Applications

The 2014 BORAM conference will take place on the Newark campus of *Rutgers, The State University of New Jersey*. The conference venue is located less than 15 minutes from the Newark/New York (EWR) Airport and in close proximity to metropolitan New York (ca. 20-30 minutes to midtown or lower Manhattan).

For additional up-to-date information please pre-register or regularly check the conference website at <http://chemistry.rutgers.edu/BORAM>

If your organization is interested in sponsorship opportunities or would like to exhibit commercial products during the conference, please contact the organizer: Dr. Frieder Jäkle, Rutgers University-Newark. Tel: (973) 353-5064; Email: boram@rutgers.edu

Call for Nominations

METRO WOMEN CHEMISTS

The Metro Women Chemists Committee is now accepting nominations for the **5th annual Gift of Mentoring Award**. Please share your stories with us if you have benefited from mentorship or you have had positive influence over other people's lives or careers. Please write your stories with no more than 300 words and send them to Sarah Carberry at sbolton@ramapo.edu.

Deadline: April 1, 2014.

The mentoring award will be presented at the MWCC event on May 14, 2014 at Farleigh Dickinson University in Madison. The event will start at 6:00 PM and include dinner.

For further details as the event approaches please check our website (<http://njacs.org/metrowomen.html>) or email Sarah Carberry (sbolton@ramapo.edu).

(continued on page 20)

CALL FOR NOMINATIONS

(continued from page 19)

WILLIAM H. NICHOLS MEDAL AWARD FOR 2015

The New York Section is accepting nominations for the William H. Nichols Medal Award for the year 2015. This distinguished award, established in 1902 by Dr. William H. Nichols, for the purpose of encouraging original research in chemistry, is the first award authorized by the American Chemical Society. It is presented annually in recognition of an outstanding contribution in the field of chemistry, and consists of a gold medal, a bronze replica and \$5000. The medals are presented at the William H. Nichols Meeting that consists of a Distinguished Symposium related to the medalist's field of expertise and a Medal Award Dinner.

Investigators who have published a significant and original contribution in any field of chemistry during the five calendar years preceding the presentation meeting are eligible for consideration by the Nichols Medal Jury. The New York Section encourages nominations from academia, government and industry.

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

Nominations must be received by May 31, 2014. The Nichols Medal Award Jury will meet in June 2014 to select the Nichols Medalist for 2015.

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



ACS NEW YORK SECTION'S OUTSTANDING SERVICE AWARD FOR 2014

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 cumula-

tive 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 2014 OSA Committee Chair, Dr. David Sarno at dsarno@qcc.cuny.edu. Nominations will be accepted **until May 31, 2014**.

The nominations will be reviewed by a committee consisting of the previous five winners of the award. The Outstanding Service Award for 2014 will be presented at the New York Section's Section-wide Conference in January 2015.

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

Call for Volunteers

LIBERTY SCIENCE CENTER

FREE Community Evenings

Volunteers are needed to host a table or do a demo at this event. The dates selected are the prime dates for these events as they are near National Chemistry Week and Earth Day. If we have more volunteers, we can go more days.

Community Evenings are exclusive events hosted throughout the year for all students, teachers and families from NJ's 31 former Abbott Districts. Held from 5:30 PM until 9:00 PM, families are invited to explore the Science Center's themed exhibition galleries; experience the excitement of IMAX films* and RealD 3D shows*; and engage in special family programming, live demonstrations and hands-on activities – all at no cost.

Dates: April 30, 2014, May 21, 2014

To Volunteer or if you have questions contact Miriam Gulotta mirjet2@yahoo.com or Jeannette Brown Jebrown@infionline.net.

**Learn more about the
North Jersey Section at
www.NJACS.org**

**COME JOIN US AT TURTLE
BACK ZOO FOR A GREAT NEW
PARTNERSHIP**

Chemists Celebrate Earth Day

Date: Sunday, April 27, 2014

Times: 11:00 AM – 4:00 PM

The North Jersey Section is very excited about this new venture that will take place at Turtle Back Zoo 560 Northfield Avenue in West Orange. The zoo is calling the day **“Party for the Planet”** and the ACS theme for CCED is **The Wonders of Water.**

We need volunteers to set up activity tables throughout the grounds. One table will be provided for each group presenting. In case of rain we can move indoors. How about signing up to help and start putting on your thinking caps for captivating hands-on-activities!

Your activities should be geared for 5 to 12 year olds. As usual our first priority is safety. Preferably presenters should use household materials to demonstrate a scientific principle.

To minimize duplication of the presentations, we will need to know **on or before April 4th** the activity you would like to conduct at your table. Individuals contacting us first with their idea(s) will be given priority, so please let us hear from you as soon as possible.

Please fill out the following forms and return them to Claire Miller: **Cmiller07940@yahoo.com.**

Form 1. Count me in.

My name is: _____

I am volunteering to work on Sunday, April 27 (Check appropriate box)

11:00 AM – 1:30 PM

1:30 PM – 4:00 PM

I can be reached at: (work phone number):

My complete address is: _____

I am an employee/student at: _____

The activity at my table will be: _____

Form 2: I will be joined at my table by the following volunteers. (Please include full name, email address, and company/institution.)

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

Amber Charlebois
CCED Coordinator, NJACS

Call for Contestants

Chemists Celebrate Earth Day 2014



Undergraduate Outreach Competition

ATTENTION STUDENT CHAPTERS

Come to the Essex County Turtle Back Zoo and Celebrate the Party for the Planet Event on **Sunday, April 27th** from 11 AM - 4 PM with your best Undergraduate Hands-on-Demonstration.

The Student Chapter with **the best** interactive demonstration that applies to the theme of the wonders of water will receive a **\$175** cash prize and the title of

“CCED Undergraduate Student Chapter 2014”
(second place gets **\$75**).

For details check the website <http://www.njacs.org/>
Student Chapters must register by April 4th to be considered for the title and the cash awards. If interested send an email describing your demonstration to **Cmiller07940@yahoo.com**



Others

NEW YORK ACADEMY OF SCIENCES SYMPOSIUM

Mitochondria, Metabolism and Disease

Organizers: Vamsi K. Mootha, MD
Harvard Medical School
Steven Gross, PhD
Weill Cornell Medical College
Jennifer Henry, PhD
The New York Academy of Sciences

Speakers: Robert Balaban, PhD
National Heart, Lung, and Blood Institute
NIH

Robert Bao, PhD
Massachusetts General Hospital

Salvatore DiMauro, MD
Columbia University Medical Center

Steven Gross, PhD
Weill Cornell Medical College

Costas A. Lyssiotis, PhD
Weill Cornell Medical College

Vamsi K. Mootha, MD
Harvard Medical School

Jared Rutter, PhD
University of Utah School of Medicine

Mitochondria are the cell's "power plants" and serve a critical role in global metabolism. Accordingly, dysfunction or damage of mitochondria can greatly perturb metabolism, and underlies a diverse range of human diseases, ranging from neurodegenerative conditions (ALS, Alzheimer's and Parkinson's diseases), epilepsy, psychiatric illness and autism, to atherosclerotic heart disease, stroke, liver disease, type 2 diabetes and cancer.

For more information and to register, please visit: www.nyas.org/MitochondrialDisease.

Date: Thursday, April 10, 2014

Place: New York Academy of Sciences
7 World Trade Center
New York, NY

National

The following message is being sent on behalf of Flint Lewis, Secretary and General Counsel of the American Chemical Society.

Dear Local Section Officers and Councilors,

There are a variety of email scams out there. One common approach is for an organization or business to be notified through an "out of the blue" email, from an organization with an impressive name but which is unknown to the recipient, that they have been selected for an award. The information provided about your achievements usually sounds impressive (e.g. "Award for Excellence") but is very generic. When the recipient explores this "good news", they may find that there is a charge for the award, that additional services are being offered for a charge, or that there is an attempt to access data, etc. This warning is not meant to cast doubt about the many legitimate awards which are bestowed upon ACS and its sections, but the organizations bestowing these legitimate awards will very likely be recognizable to the recipient. If you receive news of an award that falls in the suspect category, please contact the Office of the ACS Secretary at secretary@acs.org. We will be happy to research the organization on your behalf.



AIChE — JOINT EVENT WITH NORTH JERSEY SECTION CHROMATOGRAPY GROUP

Great Inventions That Changed The World

Speaker: Dr. James Wei

Our Our expectations of a future with increasing prosperity and better quality of life are dependent on a continued stream of new inventions. We are besieged by shortages of resources like water and energy, by natural calamities of hurricanes and earthquakes, by epidemic diseases such as malaria and AIDS, and by the dread of terrorists and nuclear wars. We clamor for new inventions to solve these problems.

Every citizen of the world would benefit from the knowledge of how inventions were made, how they can change the world by intention or by surprise, and from discussions on how to use and manage inventions wisely.

For more information about the speaker, please visit www.njaiche.org

Date: Tuesday, April 8, 2014

Times: Registration and Networking 6:00 PM
Dinner 6:30 PM
Program 7:30 PM

Place: Snuffy's Restaurant (Dinner @ 6:30)
250 Park Avenue, Scotch Plains, NJ

Cost: Dinner - Members & Guests \$25.00
Unemployed/Retired \$15.00
Students - No Charge

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You can view both of these opportunities by going to the link below.

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