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Dr. JaimeLee Iolani Rizzo
2012 New York Section Chair

(See Chair's Message, page 15)

New York Section Bylaws Changes
(See Ballot on pages 25-26 and at www.newyorkacs.org)

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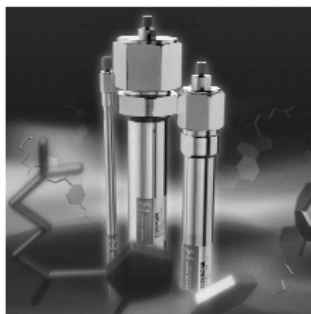
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CONTENTS

Advertisers Index	28
Call for Nominations	24 and 27
New York Chair's Message	15
New York Meetings	17-18
New York Bylaws Changes Ballot	25-26
New York Sectionwide Conference	16
Nichols Symposium	20-21
North Jersey Meetings	7-8
Obituary	4
Others	27
Professional/Product Directory	28

EDITORIAL DEADLINES

February	December 15, 2011
March	January 15, 2012
April	February 15
May	March 15
June	April 15
September	July 15
October	August 15
November	September 15
December	October 15
January 2013	November 15, 2012

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January Calendar

NEW YORK SECTION

Friday, January 20, 2012

High School Teachers Topical Group

See page 17.

Tuesday, January 24, 2012

Biochemical Topical Group

See pages 17-18 .

Saturday, January 28, 2012

New York Sectionwide Conference

See page 16.

NORTH JERSEY SECTION

Saturday, January 7, 2012 and

Monday, January 16, 2012

CHEMJOBS (formerly Careers in Transition Group) and CNJSTEM

See page 7.

Thursday, January 12, 2012

Laboratory Robotics Interest Group

See page 8.

Monday, January 23, 2012

NoJ Executive Committee Meeting

See page 7.

Deadline for items to be included in the February 2012 issue of *The Indicator* is December 15, 2011.

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

Obituary



Dr. Lilian Sello, a former editor of *The Indicator*, passed away on November 12, 2011.

Dr. Sello was a member of the ACS North Jersey Section for 45 years participating enthusiastically in many local and national ACS activities. She was a member of the national ACS Council, serving as an Alternate Councilor (1989-90) and Councilor (1991-96). Locally, she was a member of the North Jersey Executive Committee and is well remembered for her role as editor of *The Indicator* for many years, her participation in the formation of the Metro Women Chemist Committee that she co-chaired in 1979 and her work on regional meetings as MARM Publicity Chair (1988-90).

Lilian was born in Budapest, Hungary where she received a BS and an MS degree in Chemistry from the Pazmany Peter University of Sciences and a PhD in medicinal chemistry and technology from the Polytechnical University. Lilian worked as a research scientist for Hoffmann-La Roche for 28 years prior to her retirement.

Lilian arrived in the United States on January 30, 1957 with her husband, Dr. Stephen B. Sello, who predeceased her, and her two daughters Judy and Andrea. The fascinating story of her escape from Hungary was the topic of her presentation to several women's clubs in the Cedar Grove, NJ area from about 1987-1991.

In addition to her two daughters, Lilian is survived by two granddaughters

Lilian will be fondly remembered by her many close friends and colleagues, and especially by the current *Indicator* editor to whom Lilian was a true friend and mentor.

THIS MONTH IN CHEMICAL HISTORY

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

A previous column was an analysis of the book entitled “The Teaching of Science” by John F. Woodhull Ph.D., Professor of Physical Science at Teachers College, Columbia University. This was published in 1918 by The Macmillan Company in New York and is only 7 years short of a century old. Dr. Woodhull was a prolific author who illustrated his preferred methods of teaching physical sciences by publishing several books and many articles. In this column I examine how Woodhull exemplified his support of hands-on science, which he called the project method, in his publications.

An early Woodhull work was first “printed upon the cyclostyle” and published in 1888 “copies of which were sold in nearly every state of the Union and in about ten foreign countries”. It is titled “Manual of Home-made Apparatus with reference to Chemistry, Physics, and Physiology” and achieved hard copy status when republished by E. L. Kellogg and Co., New York and Chicago in 1895. This book has been digitized (amazing what one can find on the internet these days) since it is now in the public domain. It starts with lessons on glass-working with the preferred heat source being an alcohol lamp or a Bunsen burner. This book is not just for the amateur scientist but also for the teacher of science in high school, who might well have a Bunsen available.

Chemical apparatus includes production of oxygen and other gases; determining the proportion of oxygen in air; a model of a miner’s safety lamp; a blowpipe; distilling apparatus; the production of water by passing hydrogen over hot copper oxide; the production of hydrogen by passing steam over hot iron filings (the classical Lavoisier experiment); and the demonstration of oxygen or chlorine burning in hydrogen. Physical apparatus includes many pieces of equipment we might choose to demonstrate, or, better, have students use, in a beginning chemistry course including apparatus for investigating Boyle’s Law; the barometer; osmosis; expansion of gases and liquids when heated; hot filtration; and electrolysis. This ingenious work is very much in the nineteenth century tradition of scientists working with “sealing wax and wire” to create their equipment.

Another Woodhull book in similar vein is “Simple experiments in physics; mechanics, heat, fluids” published in 1906. And another is “Electricity and its Everyday Uses” published in 1911. But his many articles in the Teachers College journal show how hard he worked to provide materials for science teachers. Many were published from 1902 to 1910 as “Typical Lessons” always arguing from observations to general principles. Some subjects include “Excursions” where he argues for field trips in science classes; “Chemistry and Physics in the Horace Mann High School” (the demonstration school for Teachers College) where he argues that physical science “should be so taught in the high school that all pupils can pursue it with pleasure and profit” – and he consistently stresses that girls as well as boys should be included in science instruction; “Four lessons on milk”; “The Telephone”; “Fuels for small portable stoves”; “Carbon dioxide”; “Eggs”; “The air”; and his perennial favorite “Projects in science”.

Woodhull’s prolific output of articles includes such subjects as nature study (he greatly admired Gilbert White), the life and times of Galileo, and the relationship between science and general culture. He was a generalist rather than a specialist, an attitude which he encouraged in his student teachers. He was critical of standardized examinations and teaching to the test. This might make him out of touch with the conventional wisdom of our times – but perhaps not with the wisdom of many of my readers.

JANUARY HISTORICAL EVENTS IN CHEMISTRY

By Leopold May, The Catholic University of America, Washington, DC

January 1, 1852

Eugène A. Demarçay, who was born on this date, discovered europium from samarium magnesium nitrate in 1901 and gave spectroscopic proof of the discovery of radium. He did vacuum studies of volatility and low temperatures followed by high temperature spark spectra.

January 2, 1889

Roger Adams, a researcher in organic chemical synthesis, was born on this date. He directed 184 doctoral theses.

January 7, 1794

Eihardt Mitscherlich who did research on crystalline structure, catalysis, and benzene and its derivatives, was born on this date. He also discovered isomorphism.

January 9, 1868

Sören P. L. Sörensen, who was born on this date, is known as the "Father of pH". He did research on proteins, amino acids, and enzymes.

January 10, 1923

Chemical and Engineering News was started on this day as the bimonthly *News Edition of Industrial and Engineering News*. It was changed to *CEN* in 1942 and became weekly on January 6, 1947.

January 11, 1875

Frederick M. Becket, an inventor in electrochemistry and electrometallurgy, was born on this date. He received more than one hundred patents covering a wide range of electric furnace and chemical products, notably ferro-alloys, calcium carbide, and special chromium steels.

January 12, 1912

Konrad E. Bloch, who was born on this date, was a researcher on cholesterol and fatty acid metabolism. He shared the Nobel Prize in Physiology or Medicine in 1964 with Feodor Lynen for their discoveries concerning the mechanism and regulation of the cholesterol and fatty acid metabolism.

January 13, 1780

Pierre J. Robiquet, who discovered asparagine with Nicolas-Louis Vauquelin, was born on this date. He also measured the codeine content of opium.

January 14, 1851

Ludwig Claisen, who developed reactions such as the condensation of esters and the rearrangement of allyl vinyl ethers, was born on this day.

January 17, 1706

Benjamin Franklin, who was born on this date, was a researcher in electricity; an inventor, a statesman, and described marsh gas to Priestley.

January 18, 1861

One hundred and fifty years ago, Hans Goldschmidt was born. In 1893, he discovered the aluminothermite process (Goldschmidt Process) and patented it in 1895. He was interested in producing very pure metals by avoiding the use of carbon in smelting but realized its value in welding.

January 22, 1936

Seventy years ago, Alan J. Heeger was born on this date. He shared the Nobel Prize in Chemistry in 2000 with Alan G. MacDiarmid and Hidaki Shirakawa for their discovery and development of conductive polymers.

January 23, 1929

Twenty-five years ago in 1986, John C. Polanyi shared the Nobel Prize in Chemistry with Dudley R. Hershbach and Yuan T. Lee for their contributions concerning the dynamics of chemical elementary processes. He was born on this date and is a researcher using infrared chemiluminescence to follow excited reaction products.

January 26, 1881

Claude S. Hudson, who did research in the chemistry of sugars, was born on this date.

January 27, 1865

August F. Kekulé presented his benzene structure to Société Chimique, Paris on his date.

January 28, 1843

Henry C. Bolton, who was a writer and bibliographer of the history of chemistry, was born on this date. He studied the action of organic acids on minerals.

January 31, 1881

Irving Langmuir, who was born on this day, did research on surface chemistry for which he received the Nobel Prize in 1932) for his discoveries and investigations in surface chemistry. He introduced gas-filled tungsten lamps and the use of atomic hydrogen blowpipe for welding. He and Gilbert N. Lewis evolved the electronic theory.

Additional historical events can be found at Dr. May's website, faculty.cua.edu/may/history.htm.

North Jersey Meetings

<http://www.njacs.org>

NORTH JERSEY EXECUTIVE COMMITTEE MEETING

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

Date: Monday, January 23, 2012

Time: 6:00 PM

Place: Fairleigh Dickinson University
Hartman Lounge, The Mansion
285 Madison Ave
Madison, NJ

Cost: \$5.00 - pizza dinner

Directions can be found using map quest and the address above. A map of the campus can be found at <http://www.fdu.edu/fm.html>

Parking is available in the Mansion Lot.

Reservations: call (732) 463-7271 or email njacsoffice@aol.com prior to Wednesday, January 18, 2012.

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.



CHEMJOB (FORMERLY CAREERS IN TRANSITION GROUP) AND CNJSTEM MEETINGS

Job Hunting??

Are you aware that the North Jersey Section holds monthly meetings at Students 2 Science, Inc. in East Hanover, NJ to help ACS members? Topics covered at these cost-free workshops are:

- The latest techniques in resume preparation
- Ways for improving a resume
- Answers to frequently asked interview question and
- Conducting an effective job search

The next meeting for Chemjobs will be held **Monday, January 16, 2012**, at Students 2 Science, Inc., 66 Deforest Avenue, East

Hanover, NJ. The meeting will start at 5:30 PM and end at 9:00 PM. Networking, Informational Surveys, LinkedIn Optimization, Resume writing, and Interview Practice will provide the program with considerable interaction among the participants. A pizza snack and soda will be served at 6:30 at a cost of \$5.

A second monthly session will be held on the first Saturday of the month with a group called CNJSTEM led by Don Truss from 8:30-11:30 AM. There the format will differ from Chemjobs with a networking and job lead sharing, followed by a topical talk and demonstration. Participants are encouraged to bring their lap tops for hands on exploration of LinkedIn and other resource sharing. Coffee and Donuts will be shared for a small donation.

Date: Saturday, January 7, 2012

Times: 8:30 AM - 11:30 AM

Cost: Donation for coffee and donuts

Date: Monday, January 16, 2012



Times: 5:30 - 9:30 PM

6:30 PM Pizza snack and soda

Cost: \$5.00

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

Please contact billsuits@earthlink.net, if you plan on attending this meeting.

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LABORATORY ROBOTICS INTEREST GROUP

MID-Atlantic Automation User Meeting: Automation Applications and Technologies - The View From the Bench

This meeting is designed as an opportunity for scientists who want to share their automation experience and expertise with their peers.

Scientists and academicians from all disciplines and industries will speak at this unique meeting that will focus on automation solutions to real world problems from the perspective of the end users.

Poster and Podium presentations have been sought, especially from bench-level scientists who have used automation to solve perplexing real world problems or have created unique applications for laboratory robotics systems. End-user presentations about the design and implementation of automated systems or novel software applications may also be given.

Date: Thursday, January 12, 2012

Time: Doors open at 5:30 PM

Place: Rutgers Student Center
Rutgers University
New Brunswick, NJ

All are welcome and refreshments will be provided.



METRO WOMEN CHEMISTS COMMITTEE



The Metro Women Chemists Committee will hold our next meeting on **Wednesday, February 8, 2012** at the Fairleigh Dickinson, Madison Campus, Hartman Lounge in the Hennessy Hall Mansion. The guest speaker

will be Susan Fine of the Chocolate Path. She will give a talk on the chemistry of chocolate and attendees will be treated to an evening of chocolate decadence — come learn about chocolate, where it comes from, and how it is made all while tasting 7 courses of chocolate. Please RSVP to Sarah Carberry at sbolton@ramapo.edu by **February 1, 2012**.

CHEMISTRY AS A LIFE SCIENCE — SYMPOSIUM XV

The fifteenth in a series of CAALS biennial symposia.

Distinguished Invited Speakers:

Laura Kiessling

University of Wisconsin-Madison

Marisa Kozlowski

University of Pennsylvania

Kevan Shokat

University of California

San Francisco

Erik Sorensen

Princeton University

Brian Stoltz

California Institute of Technology

Jin-Quan Yu

The Scripps Research Institute

Date: Friday, March 16, 2012

Place: The Paul Robeson Campus Center
Rutgers, The State University of
New Jersey
Newark, NJ

Cost: Free and open to the public.

Further information regarding the symposium will be added to the website for the North Jersey Section of the American Chemical Society as it becomes available. Due to limited seating, advance registration is required. <http://www.njacs.org/caals>

Organizing Committee: V. Lombardo (The Chipperson Law Group), Shawn Erickson (Hoffman-La Roche), Stan Hall (Rutgers), Darren Hansen (Rutgers), Dave Hughes (Merck), Joseph Kozlowski (Merck), William Metz (Sanofi), Michael Miller (Bristol-Myers Squibb), Wen Shieh (Novartis)

Learn more
about the
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www.NJACS.org

NORTH JERSEY SECTION ELECTION 2012 RESULTS

The 2012 election represented the first time the section voted electronically. The number of members who voted increased over that of precious years. Thank you to all the members who participated in the election. The results are as follows:

Chair-Elect (2012)

Jefferson Tilley	407
Landon Greene	246

Councilors (2012-2015) (3)

Anne Kelly	392
Joseph Potenza	340
Alan Cooper	333

Alternate Councilors (2012-2015) (3)

Jacqueline Erickson	247
John Sowa	217
Jefferson Tilley	207
Tuwanna Rudolph	166



NOJ YOUNGER CHEMISTS COMMITTEE

Mentoring Picnic at Liberty Park

The 2011 Annual Younger Chemists Committee mentoring picnic, co-hosted by our parent chapter, the NJACS executive committee, was held on Sunday, June 26 at the Liberty State Park. Twenty-two members and friends joined the event and enjoyed the great BBQ food, the good weather, and a great view of New York City from the site. Young chemists and students took this opportunity for academic networking among themselves and with mentors of senior chemists such as Emmanuel Aouad, NY/NJ Chapter President of the Professional Advancement of Black Chemists and Chemical Engineers (NOBCCHE), and Bill Suits from the NJACS executive committee.

This is the fourth consecutive year that the YCC has participated in this event, and we hope to help make it even bigger and better next year. We were also able to take advantage of the opportunity to introduce our group to local college students and expand our membership by 10 new people.

We would like to thank everyone who attended the event, the NJACS for co-spon-

soring, Emmanuel Aouad for being a spectacular event photographer.

This event was made possible due to contribution from the NJACS.

(Photos courtesy of Emmanuel Aouad)



NORTH JERSEY SECTION CELEBRATES NATIONAL CHEMISTRY WEEK

To increase the general public's awareness of the importance of chemistry in everyday life, the North Jersey Section celebrated National Chemistry Week 2011 (NCW) by presenting ChemExpo 2011 at the Liberty Science Center on Saturday, October 22. Two hundred and fourteen volunteers from the Section held the rapt attention of the nine hundred and sixty seven attendees at the event. In support of this year's theme and that of the International Year of chemistry, "Chemistry...Our Health, Our Future", twenty-five hands-on activities covered a wide variety of topics ranging from the fat content in fast foods to the structure of DNA and its presence in bananas and cheek cells.

During NCW which was celebrated nationally from October 16 – 22, many chemists visited schools, libraries, and shopping malls and demonstrated the positive impact chemistry has had on mankind. A number of chemists from the Section brought the message of the importance of chemistry to students in their local communities. To increase the awareness of teachers, Bobbi Gorman and Mita Chaki, members of the Section's Teacher Affiliates Group, and Gail Weeks, a middle school teacher, presented two workshops at the New Jersey Science Convention. The workshops were titled "How to Celebrate National Chemistry Week in Your Classroom" and "How to be a Part of ChemExpo 2011". Additionally, Jeannette Brown, a Section Councilor and a Chemistry Ambassador, spoke at high schools in the area and helped publicize ChemExpo 2011.

At ChemExpo 2011 the attendees learned how to make home-made tooth paste, discovered that the aromatics given off from spices and fragrant oils had different chemical structures, separated casein from milk, detected the presence of iron in breakfast cereals, learned about the basic structure of DNA and detecting its presence in saliva and bananas, tested the pH of household chemicals and learned about the role acids play in the digestion of food, predicted which fast foods had lower calories and reduced fat, observed the amount of sugar in soft drinks and cereals, and found out the reason sports drinks contain electrolytes.

This year's volunteers included high school,

college, and university teachers and their students, and industrial and retired chemists. The high students were from Bergen County Academies High School; High Tech, North Bergen; Hillside High; J. P. Stevens, Edison; Union City Academy; and Linden High captured the attention of the attendees. Not to be outdone by the younger presenters, students from the College of St. Elizabeth, Morristown; Fairleigh Dickinson University, Madison; Kean University, Union; Princeton University Molecular Biology Department; the Protein Bank, Rutgers University; Ramapo College, Mahwah; and the College of New Jersey, Ewing; enthusiastically presented their hands-on activities. Ramapo College was selected by the North Jersey Executive judges as presenting the best hands-on activity in the under-graduate school competition. Other groups that participated in ChemExpo 2011 were: Alpha Chi Sigma, Bristol Myers Squibb, Glaxo-Smith Kline, Infineum USA L.P., Intertek-QTI, Student 2 Students, and the Younger Chemists Committee of the North Jersey Section.

After the event, Bobbi Gorman, who has been co-chair of ChemExpo for many years, reported that she is stepping down from this position and is grateful that several individuals have come forth to carry on the drive to improve the general public's image of chemistry/chemists. She remarked that "through the years it has been wonderful working with so many dedicated and creative volunteers." She noted that this year's event had received financial support from SPEX CertiPrep and Infineum USA L.P. and in kind support from Gelest, Inc. and the Protein Data Bank at Rutgers. She commented that the generosity of those institutions had been a big help in making this year's event so successful.



(Photo courtesy of Siva Prasad)



(Photo courtesy of Mita Chaki)



(Photo courtesy of Siva Prasad)



(Photo courtesy of Raka Chaki)



(Photo courtesy of Mita Chaki)



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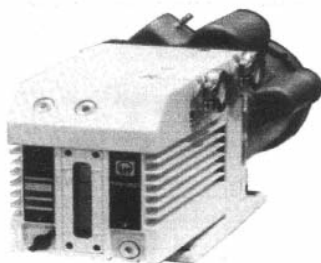
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NoJ YOUNGER CHEMISTS COMMITTEE

National Chemistry Week at Liberty Science Center Celebration

The North Jersey Younger Chemists Committee (NJYCC) participated in our third National Chemistry Week event at Liberty Science Center on October 22, 2011. This event is always a favorite among our members who are excited to take part in this opportunity to reach out to children, teens, and adults alike to show that Science can be fun!

Due to the overwhelming response to last year's Ghostbuster's activities, we expanded our participation this year to host five activities centered around this year's theme: "Chemistry—Our Health, Our Future!"

Using ACS inspired experiments, we utilized a variety of common household items and food products in five simple activities designed to demonstrate the importance of healthy living in our everyday lives: Glitter Slime, Sweet Measurements, Paper Cover-up, Sniffing out good taste and vacuum packing people.

- Glitter Slime: Demonstrates the Importance of Mucus to the human immune system
- Sweet Measurements: Demonstrates the Importance Nutrition: Visual Representation of how much sugar is in common food products
- Paper Cover-up: Demonstrates how wax protects your food and other surfaces from water, etc.
- Sniffing out good taste: Demonstrates the importance of sense of smell when eating and how it affects taste of food
- Vacuum Packing People: Demonstrates the removal of oxygen from food extending the storage quality of preserved foods.

We would like to take this opportunity to thank the fantastic group of grad students, younger chemists, NJACS members, other participants, and attendees for making this event a huge success!

This event was made possible due to an ACS Café Grant and a contribution from the NJACS.

Activity handouts for these and other activities can be found on the following website: http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_

[SUPERARTICLE&node_id=1969&use_sec=false&sec_url_var=region1&__uuid=b9c1f5ed-7785-439a-b87d-9dd3494c74dd](http://www.acs.org/education/feature-story/2011/10/22/young-chemists-committee)

About us:

The role of the NJACS Younger Chemists Committee is to promote the interests of members under the age of 35 (or close to that age). It provides graduate students, post-doctoral chemists, and young professionals with the opportunity to interact with other chemists in the section, to help them better direct their careers, and to increase their involvement in the ACS. We do it through organizing social events, volunteering, networking and mentor/mentee opportunities, talks, seminars, and generally having a bit of fun.

If you are under 35 (or just think you are!!) we want your input. What events do you want to see? How can we help you reach your professional goals? We are here to serve you, so please send us your comments and suggestions.

Better still join our group and get involved (membership is free) (http://groups.google.com/group/ycc_njacs.)

Also check us out on the National ACS YCC site: <http://membership.acs.org/Y/CC/> or <http://njacs.org/ycc/>

(Photos courtesy of Lauren Castelli)



John Penna really knows how to pack people in.



Molly Warnke and John Paul assist participants in making slime.



Gwee Liang shows just how much sugar is really in Cheerios.

NoJ YOUNGER CHEMISTS COMMITTEE

Evolution of a Scientist Lecture Series ~ A Professor's Journey

This unique free lecture series showcases local and regional chemists from academia, industry and the private sector and invites them to share their unique journeys and detail how they arrived at where they are today.

The New Jersey Younger Chemists Committee held its first installment in the Evolution of a Scientist lecture series at Rutgers University on November 10, 2011.

Our inaugural speaker, Dr. Amber Charlebois, is an Associate Professor of Chemistry at Fairleigh Dickinson University. Amber shared her adventures to Professorhood through both industry and academia and gave us glimpses into the challenges she experienced and rewarding moments. She offered advice on many topics including who and how to ask for recommendation letters and the importance of

building a good professional network.

Her current areas of research include nucleic acid visualization, honey bee pheromone synthesis and quantitation, HPLC analysis of protein structure, synthesis of potential biomarker for childhood autism, and chemical education. In addition, Professor Charlebois is chair of the North Jersey Section of the ACS.



Dr. Amber Charlebois

(Photo courtesy of Lauren Castelli)



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METRO WOMEN CHEMISTS COMMITTEE

November Meeting Report

Members of the MWCC and AWIS – Central New Jersey Section gathered at Fairleigh Dickinson University Wednesday, November 16, 2011 to hear Joanne Gere, President of AWISNJ and Founder of the Bioscience Collaborative, present a workshop on Finding Work-Life Balance on Your Terms. The meeting was scheduled to celebrate the 100th anniversary of Marie Curie's Nobel Prize in Chemistry. Keeping with the topic, Marie Curie themed door prizes were given out, including books, mugs and finger puppets. Dinner provided networking opportunities and there were several open discussions about balancing family life and a scientific career.

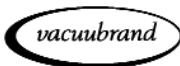
"I have frequently been questioned, especially by women, of how I could reconcile family life with a scientific career. Well, it has not been easy." ~ Marie Curie

Special thanks to the 2011 MWCC co-chairs, Kelly George and Amber Charlebois for organizing the meeting. Sarah Carberry and Fatma Tat were named as the co-chairs for 2012.



Joanne Gere, President of AWISNJ

(Photo courtesy of Sarah Bolton)



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New York Chair's Message

Dear Members of the New York Section,

It is a tremendous honor to serve you as the 2012 Chair of the New York Section! For a number of years I have volunteered within the section (Co-chairing Undergraduate Research Symposium and Chairing the National Chemistry Week Event) and have had the opportunity to work with so many dedicated volunteers within our Section. The more time I have contributed to each event, the more I begin to realize just how much each and every person who takes an active role makes the Section what it is. Our Section was founded on September 30, 1891 with 290 members and today we stand strong at 4,162. It is only through the endless efforts of our dedicated volunteers that we have been successful in expanding our Section and providing new events and opportunities for all!

We invite you ALL to join us at our upcoming events!

- Annual Sectionwide Conference, Saturday, January 28, St. John's University
- William H. Nichols Symposium and Award, Friday, March 16, Crowne Plaza Hotel, White Plains, NY
- Chemistry Olympiad, March 2012, at various high schools in the Greater Metropolitan area
- Chemagination for High School Chemistry Students, Saturday, March 31, St. John's University
- Undergraduate Research Symposium, Saturday, May 5, SUNY College at Old Westbury
- National Chemistry Week, Saturday, October 27, New York Hall of Science, Flushing, NY

Our newly designed website features all upcoming events features all events including those in subsections and topical groups along with direct access to *The Indicator* and important links to National:

www.newyorkacs.org

What energizes me is being a part of our multi-generational membership – the energy of the youth combined with the wisdom of the experienced! To sustain the vitality and strength of our Section we need to bring in a continuous stream of new and young members. This is one of my goals that I will work towards in 2012 – to attract both current and new members to join us as volunteers so that we can all work together to serve our Section and our community.

We would LOVE to have new members take on leadership roles at our various functions happening throughout the year! We also welcome and highly encourage you to bring your ideas about what we as a Section can better do to serve you and our community as a whole! Feel free to contact me as I would love to hear from you:

jrizzo@pace.edu

JaimeLee lolanni Rizzo
2012 Chair, New York Section

New York Sectionwide Conference

PROGRAM

- 9:30 AM **Arrival and Refreshments**
- 10:00 AM **Greetings from the 2012 Chair of the ACS New York Section.** Dr. JaimeLee Iolani Rizzo
- 10:10 AM **Award Presentation**
Service Plaque and Pin to the 2011 New York Section Chair
 Dr. Hiroko Ito Karan
New York Section Outstanding Service Award for 2011
 Dr. Barbara R. Hillery
Nichols Foundation H.S. Chemistry Teacher Award for 2011
 Dr. Ara Nicholas Kahyaolu, Bergenfield High School
- 10:30 AM **Report from the 2012 Elections Nominating Committee.** (Presentation of Candidates) Dr. Philip H. Mark
 2012 Chair-elect of the ACS New York Section
- 10:45 AM **Keynote Address: The Good, the Bad and the Ugly: From Carbonic Anhydrase to the Biorganometallic Chemistry of Mercury and Approaches to Detoxification** Prof. Gerard Parkin
 Department of Chemistry
 Columbia University
 Despite the fact that certain metal ions are essential for life, some are highly poisonous. For example, while zinc is essential for humans, as exemplified by its roles in carbonic anhydrase and liver alcohol dehydrogenase, its congeners, cadmium and mercury, are most toxic. Synthetic analogues, i.e. small molecules that mimic the structure and function of enzymes, provide an important means to afford insight into the natural systems and the research described will focus on the application of tripodal nitrogen and sulfur ligands in the chemistry of zinc and mercury.
- 11:45 AM **Coffee Break.** There will be poster presentations by the New York Section Project SEED Students.
- 12:00 PM **ACS, New York Section Committee Planning Sessions for 2012.**
Educational Activities: (Chemagination, Chemists Celebrate Earth Day, Continuing Education, High School Olympiad, National Chemistry Week, Nichols Foundation Teacher Award, Project SEED, Student Membership)
 Chair: Dr. Alison G. Hyslop
Member Affairs: (Awards, Employment and Professional Relations, History of the New York Section, *Indicator*, Membership, Outstanding Service Award)
 Chair: Dr. Ralph Stephani
Program Review: (Subsection and Topical Discussion Group Chairs)
 Chair: Dr. Anne T. O'Brien
Public Affairs: (Academe and Industrial Relations, Environmental Chemistry, Fund Raising, Government Affairs, Information Technology, Public Relations, Speakers Bureau)
 Chair: Dr. Robert P. Nolan
- 12:45 PM **Reports from the Chairs of the Committee Planning Sessions.**
- 1:00 PM **Conclusion of the Meeting.** Join with colleagues for lunch at a local restaurant.

Date: Saturday, January 28, 2012

Times: 9:30 AM – 1:00 PM

Place: St. John's University, 8000 Utopia Pkwy., Donovan Residence Hall, Lower Level, Donovan Hall Community Room, Jamaica, NY

Cost: Free to all

Please register for the conference at the New York Section Website at <http://www.NewYorkACS.org>.

To inquire about the Section-wide Conference, please call the New York Section Office at 516-883-7510 or e-mail Marilyn Jespersen, Office Administrator, at: njesper1@optonline.net

Directions are at: <http://www.stjohns.edu/about/general/directions/directions/queens>

Hope you can attend.

New York Meetings

www.newyorkacs.org

NEW YORK SECTION BOARD MEETING DATES FOR 2012

The dates for the Board Meetings of the ACS New York Section for 2012 were chosen and approved at the September 2011 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 2012 Board Meetings will be held on the following Fridays at 5:00 PM at Queensborough Community College—CUNY, 225-05 56th Ave., Bayside, NY, Room 414 in the Science Building. Dr. JaimeLee lolani Rizzo will chair the meetings.

Friday, February 10
Friday, April 13
Friday, June 8
Friday September 14
Friday November 16

Also, please mark your calendar with the dates of the following major events.

Saturday, January 28, Annual Section-wide Conference at St. John's University

Friday, March 16, William H. Nichols Medal Award Symposium and Dinner

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



HIGH SCHOOL TEACHERS TOPICAL GROUP

Tunnel Boring Machines for the Number 7 Subway Line Extension Project

Speaker: Adam Hingorany
Electrical Engineer
J. F. Shea Construction

The Number 7 subway line extension is a collaborative effort on behalf of the MTACC and S3II Tunnel Constructors (J.F. Shea, Schiavone, and Skanska) to revitalize the West Side of Manhattan. The project is designed to extend the Number 7 line, which currently travels from Flushing to Times

Square. The project will extend service to the Jacob Javits Center. The tunneling in the project was completed with two Herrenknecht double shield tunnel boring machines, each with a diameter of 22.5' and a length of 445'. During excavation the machine placed concrete segments to form a continuous concrete liner. The presentation will focus on the technical portions of the machines as well as the mining process.

Date: Friday, January 20, 2012

Time: Social and Dinner — 5:45 PM

Place: Georges – New York
89 Greenwich Street
(Corner with Rector Street)
New York, NY
No reservations required

Time: Meeting 7:15 PM

Place: United Federation of Teachers
50 Broadway
New York, NY

Security 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 AM and 2 PM to verify that meeting is still on; (516) 385-4698 for other info.

Note: Street parking is free after 4:00 PM. For those who prefer indoor parking, it is available at Central Parking on Greenwich Street. It is a short walk from the garage to the restaurant or meeting room.



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

Biomarkers and Brain Imaging of Presymptomatic Alzheimer's Disease: Exploring The Silent Years

Organizers: Robert B. Nelson, PhD
Lundbeck Research USA

Robert L. Martone, MS
Covance Biomarkers Center
of Excellence

Ken Jones, PhD
BPDG

Jennifer Henry, PhD
The New York Academy of
Sciences

(continued on page 18)

BIOCHEMICAL TOPICAL GROUP

(continued from page 17)

Speakers: Bradley T. Hyman, MD, PhD
Massachusetts General Hospital

Simon Lovestone, PhD,
MRCPsych, MRC
Centre for Neurodegeneration
Research, London, UK

John C. Morris, MD
Washington University School
of Medicine

Reisa Sperling, MD
Brigham and Women's Hospital
and Harvard Medical School

New clinical tools suggest that events underlying AD begin many years prior to diagnosis. This symposium explores these structural, functional, and biochemical events that precede and may predict both AD and amnesic mild cognitive impairment (aMCI).

Date: Tuesday, January 24, 2012

Time: 1:00 – 5:00 PM

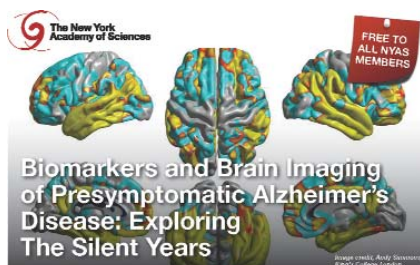
Place: The New York Academy of Sciences
7 World Trade Center
250 Greenwich Street – 40th Floor
New York, NY 10007

Cost: This event is FREE for ACS and NYAS members. Non-members may attend for a fee of \$30, or \$15 for students and post-docs.

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

www.nyas.org/AlzheimersBiomarkers

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



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

17TH ANNUAL HIGH SCHOOL POSTER SESSION AT ST. JOSEPH'S COLLEGE

Sponsored by: The New York Section of the American Chemical Society and St. Joseph's College

The annual Poster Session provides an opportunity for talented high school students from the metropolitan area to compete and to be recognized for their research accomplishments.

The program includes:

- Judging of posters by scientists working in industry and academia.
- Guest speaker
- Certificates to all participants
- Cash prizes to the four winning presenters.

Date: Saturday, February 4, 2012

Times: Arrival and set-up 9:00 - 9:30 AM

Judging 9:30 - 11:30 AM

Guest speaker 11:30 AM - 12:30 PM

Awards 12:30 - 1:00 PM

Place: St. Joseph's College
245 Clinton Avenue
Brooklyn, NY

For more information about this annual event and registration information visit: www.sjcnyc.edu/postersession

Or contact Dr. Jill Rehmann (email: jrehmann@sjcnyc.edu). Include HS Poster Session in the subject line).



ACS NY SECTION—60TH ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM (URS)

This year the 60th Annual Undergraduate Research Symposium will be hosted by SUNY College at Old Westbury, Old Westbury, NY on **Saturday, May 5, 2012**.

Conference Registration Window:
February 22, 2012 to March 7, 2012

Conference Website:
<http://www.newyorkacs.org/meetings/urs/urs.php>

E-mail questions to:
nyacsurs2012@gmail.com

2012 URS Committee

WESTCHESTER CHEMICAL SOCIETY

The Westchester Chemical Society met October 4th to listen to Mr. Patrick Falciano's presentation on the Indian Point Nuclear Generating Station (in Westchester County, NY). Its design, including many air and water quality, and other safety, features were discussed. Mr. Falciano has worked in the nuclear power industry for almost 41 years with most of his experience at Indian Point. He is founder of a consulting firm, Nuclear Renaissance Services and is currently Outreach Education Coordinator at Indian Point. We enjoyed his interesting and timely talk very much.

The society also met November 8th. Dr. Jon Friedrich of the Department of Chemistry at Fordham University, and of the Department of Earth and Planetary Sciences at the American Museum of Natural History, spoke on quantitative applications of X-Ray Microtomography to the investigation of physical properties, such as porosity or degree of compaction, of meteorites. We enjoyed Dr. Friedrich's fascinating talk, and meeting with him informally after the meeting very much.

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.

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Westchester Chemical Society members, left to right: Paul Dillon, Jody Reifenberg, Jon Friedrich and Rolande Hodel

(Photo courtesy of Paul Dillon)


WILLIAM H. NICHOLS MEDAL – DISTINGUISHED SYMPOSIUM AND AWARD BANQUET

Symposium: Mass Spectrometry: New Ways to Probe Molecular Structure and Reactivity

Award Recipient: **PROFESSOR ALAN G. MARSHALL**
 Ion Cyclotron Resonance Program
 National High Magnetic Field Laboratory
 Florida State University, Tallahassee, FL

PROGRAM

- 1:30 PM **Welcome** Professor JaimeLee Iolani Rizzo
 2012 Chair, ACS, New York Section
 Pace University, NYC
- 1:35 PM **Opening of the Distinguished Symposium** Professor Philip H. Mark
 2012 Chair-elect, ACS, New York Section
 Nassau Community College - SUNY
- 1:45 PM **Accelerated Chemical Reactivity Implemented Using Mass Spectrometry** Professor R. Graham Cooks
 Purdue University
- This presentation deals with studies of chemical reactions in solution and at surfaces that are facilitated by the new ambient ionization methods of mass spectrometry. These analytical methods like desorption electrospray ionization (DESI) and paper spray ionization (PS-MS) have facilitated experiments based on reactions occurring outside the mass spectrometer at atmospheric pressure. This talk covers reactions occurring (i) in charged microdroplets generated by spray ionization, (ii) between dry organic ions and reagents on surfaces and (iii) between compounds on paper and surrounding gaseous ions. These unusual media are shown to be effective in driving and accelerating organic reactions. Bimolecular solution phase and heterogeneous reactions are a recent component of the subject, and the possibility of scaling up reactions under these conditions is noteworthy.
- 2:30 PM **Searching for Short-Lived Intermediates in Liquid Chemical Reactions** Professor Richard N. Zare
 Stanford University
- Without measurement we cannot have science, and nothing so much stimulates new measurements as inventing and perfecting new measurement devices. In this presentation I wish to describe some new directions being developed in my laboratory for the use of desorption electrospray ionization (DESI), an ambient ionization technique for mass spectrometry, which was first introduced by Prof. R. Graham Cooks and co-workers, Department of Chemistry, Purdue University. I will stress the use of DESI to record transient intermediates of solution-phase chemical reactions on the millisecond time scale. I will also describe some uses of DESI imaging to examine healthy and diseased tissue. This work has been primarily carried out by Dr. Richard H. Perry and Dr. Ali Ismail under the support of the Air Force Office of Scientific Research.
- 3:15 PM **Coffee Break**
- 3:45 PM **Mass Spectrometry Enables Chemical Footprinting and New Understanding about Proteins** Professor Michael L. Gross
 Washington University
- Our goal is a rapid, sensitive, and specific means of determining protein interactions, folding, and unfolding by using chemical footprinting coupled with MS. Driving this approach is the wide availability of mass spectrometers for analytical proteomics; these should also be applicable to protein footprinting. To this end, we are developing fast photochemical oxidation of proteins (FPOP) and hydrogen/deuterium exchange to interrogate protein interactions, interfaces, and dynamics of folding/unfolding. We will illustrate the potential of H/DX and FPOP with applications to the ApoE family of proteins, a family with important implications in Alzheimers and other diseases.

4:30 PM **Mass: The Universal Chemical Currency** **Professor Alan G. Marshall**
NICHOLS MEDALIST

It is now possible to produce, intact, a gas-phase ion, often under ambient conditions, from almost any molecule, including many not isolable or stable in solution. Ultrahigh resolution and mass accuracy enable determination of elemental composition (C_xH_yN_zO_wS_v...) for mixtures as complex as petroleum crude oil, peptide amino acid composition and sequence for protein identification, nature and site(s) of protein post-translational modification(s), and mapping of binding surfaces in bio-macromolecular complexes. Recent advances in high-end instrumentation will be described, and applied to problems ranging from the Deepwater Horizon oil spill to identification of drug targets in protein assemblies. Work supported by NSF NIH (R01 GM78359), NSF Division of Materials Research through DMR-06-54118, NSF CHE-10-49753, NSF CHE-1016942, and the State of Florida.

5:45 PM **Social Hour**

6:45 PM **William H. Nichols Medal Award Dinner**

Date: Friday, March 16, 2012

Times: Registration 1:00 PM

Symposium 1:30 PM – 5:30 PM

Reception 5:45 PM

Award Dinner 6:45 PM

Place: Crowne Plaza Hotel, White Plains, NY

More information on the Nichols Medal Events is available on the New York Section's website at <http://www.NewYorkACS.org>.

Tickets may be reserved using the following form or through the New York Section website.

Please reserve _____ places for the symposium & banquet at \$120/person, ACS member
_____ places for the symposium & banquet at \$150/person, Non-member
_____ places for the banquet only at \$110/person, ACS member
_____ places for the banquet only at \$120/person, Non-member
_____ places for the symposium only at \$40/person, ACS member
_____ places for the symposium only at \$60/person, Non-member
_____ places for the symposium only at \$25/person, Students and
Unemployed

(For table reservations of 8 or more, use the ACS member \$95/person rate for combination tickets)

Reserve a table in the name of: _____

Names of guests are: _____

Indicate numbers in your group who choose:

Chicken _____

Prime Rib _____

Salmon _____

Mail Tickets to:

Name: _____

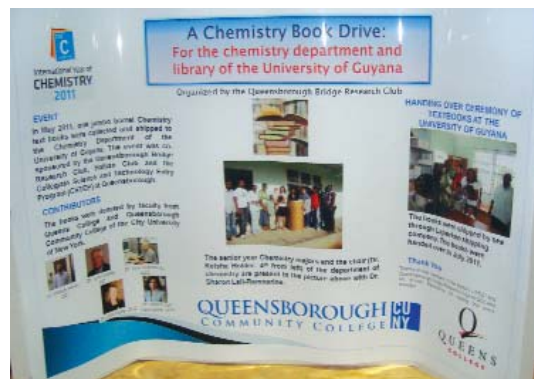
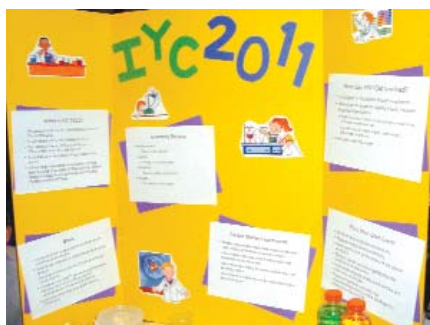
Address: _____

BANQUET RESERVATION DEADLINE: MARCH 5, 2012

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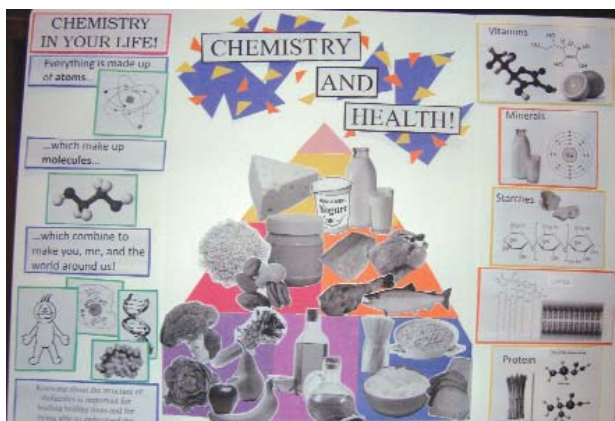
Check for \$ _____ enclosed

NEW YORK SECTION CELEBRATES NATIONAL CHEMISTRY WEEK AT THE NEW YORK HALL OF SCIENCE



Some of the posters for IYC that were presented at National Chemistry Week at the New York Hall of Science.

(Photos courtesy of Joan Laredo-Liddell)



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Call for Nominations

EDWARD J. MERRILL AWARD FOR OUTSTANDING HIGH SCHOOL CHEMISTRY TEACHER FOR 2011

Now is the time to begin thinking about nominations for the Edward J. Merrill Award, North Jersey Section, for Outstanding High School Chemistry Teacher for the year 2011.

Go to the web site, njacs.org under education and obtain your preliminary nomination form and guidelines. The full packet takes time to do a good job!

We all know an outstanding high school chemistry teacher. Perhaps one from your town, your son's or daughter's teacher or just one that you have heard about or worked with at some point. The award carries \$500 for the teacher, \$500 in supplies for the teacher's classroom and a plaque to display at home or in the classroom.

Any questions or help needed contact Bettyann Howson,
chemphun@optonline.net.



2012 AWARD FOR CREATIVITY IN MOLECULAR DESIGN & SYNTHESIS

The ACS North Jersey Section seeks nominations for its 2012 Award for Creativity in Molecular Design & Synthesis. The award is sponsored by Bristol-Myers Squibb Co., Hoffmann-La Roche, Merck & Co., Novartis, and Rutgers University and is presented by the section biannually. The prize consists of a crystal plaque and a \$5,000 honorarium. The award recognizes initiative, creativity, leadership, and perseverance in pure and/or applied chemistry. Qualified candidates must be American chemists who are not younger than 40 years old prior to Jan. 1, 2012. Nominees must have had broad impact in the areas of chemical synthesis, method development, bioorganic/medicinal chemistry, pharmaceutical sciences, and/or molecular recognition.

Nominations should include a letter describing the nominee's achievements, a brief biography and curriculum vitae, and a list of the nominee's important published works. Successful nomination packets will include two to three recommendation letters sup-

porting the candidate. Re-nominations are encouraged.

Please submit materials **by January 1, 2012**, to Akin Davulcu, Chemical Development Department, Bristol-Myers Squibb Co., 1 Squibb Drive, New Brunswick, NJ 08903.



ACS FELLOWS PROGRAM NOMINATIONS (2012)

Nominations for the American Chemical Society Fellows Program are being requested from NY-ACS section members. The Fellows Program was created to recognize members of ACS for outstanding achievements in and contributions to Science, the Profession, and the Society.

Significant contributions to both science and the profession and to the American Chemical Society are required (see <http://www.acs.org> for further information).

The name and e-mail address of the nominee should be sent to Fellows@NewYorkACS.org. From those nominated, nine will be selected as the NY Section's nominees.

The deadline for submitting nominations is **February 1, 2012**.



SOCIETY FOR APPLIED SPECTROSCOPY— NEW YORK SECTION

Gold Medal Award

Nominations are being sought for the 2012 Gold Medal Award of the New York Section of the Society for Applied Spectroscopy. This coveted award was established in 1952 to recognize outstanding contributions to the field of Applied Spectroscopy. The Gold Medal will be presented at a special award symposium, arranged in honor of the awardee, at the 2012 Eastern Analytical Symposium. A nominating letter describing the nominee's specific accomplishments should be submitted along with a biographical sketch and list of publications by **January 31, 2012**. Please send all materials to Deborah A. Peru, Colgate Palmolive Co., 909 River Road, Piscataway, NJ 08855.

For further information, call (732) 878-7295 or email Debbie_Peru@colpal.com.

(continued on page 27)

NEW YORK SECTION BYLAWS CHANGES

At the Sectionwide Conference in January 2011 you voted to amend our Articles of Incorporation to bring them up to date and consistent with New York State law. The need for this change was pointed out to us by the National Committee on Constitution and Bylaws. We had proposed changes in our bylaws to allow the new category of student members. At the New York Section board meeting on November 18, 2011, we received unanimous approval to have you vote on these changes by mail as required by our present bylaws. If you need to review the old bylaws and proposed changes before voting, these are available on the web at:

<http://www.newyorkacs.org/2012ByLaws.php>

In order to vote on these changes to the bylaws please fill out the form below and mail to the New York Section Office c/o Dr. Neil Jespersen at St. John's University **by January 31, 2012.**

Any questions on this matter may be answered by our secretary and webmaster — Dr. Brian Gibney — of Brooklyn College or Dr. Donald Clarke, chair of the NY Section Bylaws Committee. His address is Chemistry Dept., Fordham University, 441 E. Fordham Road, Bronx, NY 10458. Phone 718-817-4444 or email clarke@fordham.edu

NEW YORK MEMBERS

Instructions: Please (1) print this page (p.25), (2) mark the ballot, (3) print & sign your name, and (4) return it by first class mail in an envelope to Neil Jespersen at the address on the next page. You'll need a 44¢ stamp.

New York Section Bylaws Ballot

Approve

Disapprove

Please print and sign your name below:

Dr. Neil Jespersen
Chemistry Department
St. John's University
8000 Utopia Parkway
Jamaica NY 11439

CALL FOR NOMINATIONS

(continued from page 24)

WCS DISTINGUISHED SCIENTIST AWARD 2012

The Westchester Chemical Society is accepting nominations for the "WCS Distinguished Scientist Award 2012". Scientists who live or work in Westchester qualify. Please send a resume by **January 31, 2012** to Dr. Richard Goodmann, 38 Aspinwall Road, Briarcliff Manor, NY 10510.



METRO WOMEN CHEMISTS COMMITTEE

The Metro Women Chemists Committee is accepting nominations for the 2012 Mentorship 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. **The deadline is March 31, 2012.** The The Gift of Mentoring meeting and award ceremony will be held on April 12, 2012, at the Rutgers Busch Campus. This meeting will be so-sponsored by AWIS (www.awisnj.org).

Others

IMPOSSIBLE CRYSTALS, QUASICRYSTALS: NOBEL PRIZE IN CHEMISTRY, 2011

By Leopold May

The Catholic University of America
Washington, DC

Quasicrystals that were supposed not to exist were discovered by **Daniel Shechtman** of the Technion Institute of Haifa, Israel. Examining the electron diffraction pattern of a rapidly solidified alloy of aluminum and manganese on April 8, 1982, he found that the atoms were not packed in symmetrical patterns that were repeated periodically in the crystal as was found with crystals previously. He had prepared the first quasicrystal. Aperiodic mosaics that are found in medieval Islamic mosaics of the Alhambra Palace in Spain and the Darb-Imam Shrine in Iran help to understand the appearance of quasicrystals at the atomic

level. The patterns are regular but never repeat themselves. In the course of defending this very controversial discovery, he was asked to leave his research group. As more examples of quasicrystals were found in the laboratory and in mineral samples from a Russian river, the concept of quasicrystals was accepted leading to awarding of the 2011 Nobel Prize in Chemistry to Daniel Shechtman for the discovery of quasicrystals. Who said that there is nothing new under the sun?



STUDENTS 2 SCIENCE

Dear Friends of Students 2 Science, Inc.



2011 has been a very exciting year!

- we completed our pilot program, hosting 20 visits and over 700 students during the 2010 / 2011 academic year

- we validated the effectiveness of our program with impressive test results

- **81%** of Middle School Students tested improved on their post-visit proficiency scores
- **48%** of Middle School Students said they are now considering a career in STEM
- **100%** of the teachers are recommending this experience for other Middle Schools!
- we raised about \$350,000 this year
- we are on track to host approximately 50 visits and nearly 2000 students during the 2011 / 2012 academic year

It sure is exciting to be a part of a new, innovative and high effective program. Imagine our potential - 10,000 students per year with a **48%** increase in the number of students choosing to study STEM subjects.

With your help we will make this happen! Please....

- Promote our program to an influential philanthropic person or organization
- Visit our website and make a donation
- Donate your time working with our students (send me an email)
- Donate your time with our creative development

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Ad Index

ANALYTICAL

EMD Chemicals	7
Huffman Laboratories, Inc.	28
Micron Inc.	23
Nacalai USA Inc.	2
New Jersey Institute of Technology	28
NuMega Resonance Labs.	28
Robertson Microlit Labs	13
Vacuubrand, Inc.	14

EQUIPMENT

Eastern Scientific Co.	11
Mass Vac, Inc.	2

GENERAL

ACS-NY/NoJ Sections	18
ACS-NY/NoJ Sections	28
ACS-NY/NoJ Sections	28