

FEBRUARY 2010 Vol. 91 • No. 2 ISSN0019-6924

Celebrate Earth Day 2010 Thursday, April 22

(see article on page 8)



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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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EDITORIAL DEADLINES		
March	January 15, 2010	
April	February 15	
May	March 15	
June	April 15	
September	July 15	
October	August 15	
November	September 15	
December	October 15	
January 2011	November 15, 2010	
February	December 15, 2009	

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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 West, 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/update.

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

February Calendar

NEW YORK SECTION

Tuesday, February 2, 2010Nanoscience Discussion Group *See page 8.*

Thursday, February 4, 2010 Chemical Marketing & Economics Group See page 8.

Friday, February 5, 2010 Hudson-Bergen Chemical Society See page 9.

Thursday, February 11, 2010 Long Island Subsection *See page 9.*

Friday, February 19, 2010NY Section Board of Directors *See page 8.*

Tuesday, February 23, 2010Biochemical Topical Group
See page 10.

Friday, February 26, 2010 HSTTG See pages 10-11.

NORTH JERSEY SECTION

Thursday, February 4, 2010
Teacher Affiliates Executive Committee
See page 14.

Thursday, February 4, 2010 Careers in Transition *See page 14.*

Tuesday, February 10, 2010 ChemTAG *See page 14.*

Monday, February 22, 2010 NoJ Executive Committee See page 14.

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 April 2010 issue of *The Indicator* is February 15, 2010.







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THIS MONTH IN CHEMICAL HISTORY

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

In my last column I described the beginning of the career of the chemist – and chemical historian - Edward Thorpe. In 1885 he was picked to succeed Sir Edward Frankland as Professor of Chemistry at what was then the Normal School of Science and Royal School of Mines in South Kensington, London - later known as Imperial College of Science and Technology of the University of London. He resumed work on inorganic chemistry discovering diphosphorus tetroxide in 1886; and later phosphorus (III) oxide, a volatile low-melting reactive crystalline solid. It was this oxide which was responsible for the horrible necrosis of the jaw observed among female workers in the early years of the match industry. His continuing interest in photochemical determinations of light intensity led to expeditions to solar eclipses in the West Indies in August 1886 and in French Senegal in Africa in April 1893. Meanwhile inorganic chemistry prospered with investigations on atomic weights of titanium and gold; the composition of the spa waters of Cheltenham; manganese trioxide; phosphoryl trifluoride; thiophosphoryl trifluoride; fluosulphonic acid; vapor density of HF at different temperatures; and the decomposition of carbon disulfide by shock. Thorpe also worked both at Leeds and in London on the causes of coal-dust explosions in mines.

Thorpe's penultimate position, which he held from 1894 to 1909, was as Director of the Government Laboratory. He helped design the laboratory's new buildings in central London. This laboratory was heavily involved in analytical chemistry related to industry and Thorpe published papers on the determination of ethanol content of medicinals; on lead content of ceramics; on the occurrence of paraffin hydrocarbons in plants; and on a more precise determination of the atomic weight of radium. He returned to Imperial College from 1909 to 1912 where he helped develop plans for its new buildings which were completed under his successor, William Tilden.

Edward Thorpe's great accomplishments led to many honors. After he retired from the Government Laboratory he received a knighthood and was an advisor to the Government during the first World War. He was Vice President of the Royal Society in 1894-95; President of the Society of Chemical Industry in 1895; President of the Chemical Society from 1899-1901; and President of the British Association for the Advancement of Science in 1921. His honorary degrees included doctorates from Dublin University, and ther Universities of Manchester, Leeds, Glasgow, and Edinburgh. He had many European friends including Victor Meyer and Mendeleef who stayed with him when they came to England.

Thorpe was a prolific author of textbooks and reference works. His multi-volume "Dictionary of Applied Chemistry" was first published in 1890 and went through several subsequent editions. His texts on inorganic chemistry, quantitative analysis, and qualitative analysis were standard works in their time. (I have a number of Thorpe's works in my personal library). And in the area of history of chemistry, in addition to the "Essays" referred to in my first column on Thorpe he published a history of chemistry (1909) and biographies of Humphry Davy, Priestley, and Roscoe. Thorpe was also a keen yatchsman; he maintained yachts at Salcombe estuary and wrote two guides for sailors — to the Dutch waterways and to the River Seine. Sir Edward Thorpe died at Salcombe in Devon, England, in February 1925.

FEBRUARY HISTORICAL EVENTS IN CHEMISTRY

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

February 3, 1893

Lenora Neuffer Bilger, a researcher in asymmetric nitrogen compounds, was born on this date. She also received the Garvan Medal from ACS in 1953.

February 5, 1840

John Boyd Dunlop, who developed pneumatic rubber tires, was born on this date.

February 6, 1860

One hundred and fifty years ago, Nikolai D. Zelinsky, was born on this date. He was a researcher on the catalysis of disproportion-at-ion reactions of hydrocarbons and the bromination of fatty acids (Heil-Volhard-Zelinsky reaction).

February 7, 1850

John B. F. Herreshoff, who developed the method for manufacturing sulfuric acid, was born on this date.

February 8, 1777

Bernard Courtois who was born on this day, discovered iodine in the liquor from the lixiviation of kelp in 1811.

February 8, 1866

Moses Gomberg, who synthesized the first stable free radical (triphenylmethyl), was born on this date. He also did research on tautomerism.

February 11, 1847

Thomas A. Edison was an inventor who invented the incandescent lamp and the mimeograph. He was born on this date.

February 12, 1785

Two hundred and twenty-five years ago, Pierre L. DuLong was born on this date. He discovered nitrogen trichloride in 1813; and was a researcher on refractive indices and specific heats of gases. In 1819, he and Aléxis Thérèse Petit discovered the Law of constancy of atomic heat and suggested that acids were compounds of hydrogen in 1815. He devised formula for heat value of fuels (DuLong Formula).

February 14, 1917

Twenty-five years ago in 1985, Herbert A. Hauptman and Jerome Karle shared the Nobel Prize in Chemistry for their outstanding achievements in the development of direct methods for the determination of crystal structures. Herbert A. Hauptman was born on this date.

February 18, 1745

Alessandro G. A. A. Volta, who born on this date, invented the voltaic pile, vota pila, and observed the bubbling of methane in swamps. He developed a gas lantern that was electrically ignited. The unit of electric potential, the volt, is named in his honor.

February 20, 1937

Robert Huber, who did research on the three-dimensional structure of proteins involved in photosynthesis, was born on this date. In 1998, he shared the Nobel Prize in Chemistry with Johann Diesenhofer and Hartmut Michel for the determination of the three-dimensional structure of a photosynthetic reaction centre.

February 24, 1913

William S. Johnson devised new and efficient methods to synthesize complex molecules including corticoid steroids. He was born on this date.

February 25, 1869

Phoebus A. T. Levene, who was born on this date, was as a researcher on the biochemistry of proteins,

February 26 1905

William J. Sparks, an innovator and developer in synthetic rubber was born on this date.

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

THE BIRTH OF THE NATIONAL SCIENCE FOUNDATION

By Kevin K. Olsen, Montclair State University

"No man but a blockhead ever wrote, except for money." Samuel Johnson (1709 - 1784)

February marks a special month for readers of *The Indicator* who work in academia. It was on February 8, 1952 that the National Science Foundation awarded their first 28 grants to academic researchers

The idea for a National Science Foundation was first proposed in July of 1945 at a hearing of the Senate Subcommittee on War Mobilization. The important contributions of scientists to the Allied war effort made it clear to the Congress that science and technology were going to be critical to national security. Seven months later in February of 1946 Senator Pepper of Florida identified six national needs that could be met through a government funded research program, atomic research, rheumatic fever, water pollution, electronic warfare, the ionosphere, and microbiology. Although the senate approved the measure to create the NSF in July of 1946, the idea did not have widespread approval in the Congress and it was far from clear what the structure of the proposed NSF should be.

It was not until May of 1947 that the Senate voted 79 to 8 to establish a national research foundation. But by the time that the measure reached the House of Representatives, Congressional opponents were criticizing the idea. They citing the possibilities of pork barrel spending, the corruption of research by government control, and threats of Socialism. (Sound familiar?) Critics also complained that the bill would not train enough young men for careers in science. (At the time few women were encouraged to enter the professions.) The House of Representatives finally passed their version of a bill creating the NSF by the middle of July, 1947.

The bill that reached the president's desk later that month called for "fundamental" research not applied research to create "gadgets." The bill also freed the federal funding from Land Grant Colleges so that research dollars could be channeled into the most promising institutions.

President Truman reluctantly vetoed the bill in August of 1947. Among other reservations, Truman wanted the President to have more control over the foundation. In order to keep scientific research funded, Truman did call for 1% of the National income (or about 2 billion dollars) to go into science and said that he did favor a National Science Foundation. A revised bill did reach the president in 1950 and was signed on May 10th. The legislation creating the NSF was intended "to promote the progress of science; to advance the national health, prosperity and welfare; to secure the national defense; and for other purposes."

On November 14, 1951, the NSF announced that 400 students, men and women, would receive NSF scholarships for the 1952 - 1953 academic year. The scholarships were \$1,400 for the first year, \$1,600 for second year, and postdocs received a princely \$1,700.

Seven years after the idea was first placed before Congress, the first 28 awards for research were announced on February 8, 1952. The average award was \$14,500.

Biochemistry

Dr. Sidney Weinhouse, Dept of Metabolic Chemistry, Institute of Cancer Research, Philadelphia, Anterior Pituitary Hormone Effects on Fatty Metabolism, , \$10,300

Dr. Willis H. Johnson, Wabash College, Nutrient Requirements of Paramecium Multimicronucleata, \$3,200

Dr. Robert A. Alberty, Department of Chemistry, University of Wisconsin, Molecular Kinetics and chemical kinetics of Fumarase, \$9,000

Enzyme Chemistry

Dr. Élliot Juni, Dept of Bacteriology, University of Illinios, Mode of Action of Cocarboxylas in carbohydrate metabolism, \$17,250

Biophysics

Dr. Theodore Holmes Bullock. UCLA, Neurological Responses to Infra-Red Radiation, \$5,300 Dr. Britton Chance, University of Pennsylvania, Components of Blood, \$37,100

New York Meetings

www.newyorkacs.org

ACS NEW YORK SECTION MEETINGS FOR 2010

Friday, March 5 William H. Nichols

Distinguished Symposium and Medal Award Dinner Crowne Plaza Hotel White Plains. NY

The Board of Directors Meetings for 2010 are:

Friday, February 19

Friday, April 16 Friday, June 4 Friday, September 10 Friday, November 19

The regular Board Meetings will be held at St. John's University, 8000 Utopia Parkway, Jamaica, NY, in the Library's Writing Center. They are open meetings and all are welcome.

For more information, please visit the New York Section website at http://www.NewYorkACS.org.



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NEW YORK NANOSCIENCE DISCUSSION GROUP

Hosted by: Department of Chemistry

New York University

Mark you calendars for the Spring 2010 meetings, to be held on **February 2** and April 6.



CHEMICAL MARKETING & ECONOMICS GOUP

Pharmaceutical Outlook: Finding Drivers and a Roadmap

Speaker: Dr. Ronny Gal Senior Analyst

Specialty Pharmaceuticals Sanford C. Bernstein

Date: Thursday, February 4, 2010

Times: Cocktails 11:30 AM Luncheon 12 noon

Presentation 1:15 PM Place: Club Quarters

40 West 45th Street New York, NY

Cost: EARLY-BIRD RATES: \$45 for

Members (and \$55 for Guests) who reserve by **Monday, January 4, 2010**, 4 PM; After 1/4, \$55 for Members: \$65 for Guests

To Reserve: Please reserve early to be eligible for the discount price. We now accept all major credit cards via PayPal ("Reserve Now" link on www.nyacs-cme.org), or call Vista Marketing at (917) 684-1659, or via Email to cmegroup@mac.com

Next Meeting: Thursday, March 4th, 2010



CHEMISTS CELEBRATE EARTH DAY 2010

Plants - The Green Machines!

Remember that CHEMISTS CELEBRATE EARTH DAY (CCED) will be celebrated on **Thursday, April 22!** The CCED theme for 2010 is "Plants - The Green Machines!" Hopefully you are planning to celebrate anytime during the week of April 22nd. Stay tuned to **www.acs.org/earthday** and *The Indicator* for updates and the latest information as CCED is soon approaching!

HUDSON-BERGEN CHEMICAL SOCIETY — JOINT MEETING WITH THE DEPARTMENT OF CHEMISTRY OF NEW JERSEY CITY UNIVERSITY

Nanotechnology for Efficient Delivery of Therapeutic Genes and Co-delivery of Genes with Chemical Anticancer Drugs for Effective Cancer Therapy

Speaker: Huixin He

Chemistry Department Rutgers University Newark, NJ

Chemotherapy is one of the most extensively used cancer therapies. However, development of multidrug resistance in cancer cells and adverse side effects are the major obstacles for effective cancer chemotherapy. Therapeutic strategies to overcome drug resistance and specific tumor targeting with minimal premature drug release should have a great impact on the treatment of cancer. Most of the anticancer drugs trigger the caspase-dependent pathways of apoptosis and simultaneously activate antiapoptotic cellular defense which prevents cell death. Therefore, an apoptosis-inducing drug has to be delivered to the cells simultaneously with a suppressor of antiapoptotic cellular defense in order to effectively kill cancer cells. Special sequences of short interference RNAs (siRNAs) targeted against mRNA encoding major proteins responsible for cellular defense have been developed and showed a substantial efficacy in vitro. However, the lack of safe and efficient methods to deliver such siRNA molecules (as suppressors of cellular antiapoptotic defense) simultaneously with a traditional anticancer drug (as apoptosis inducers) specifically to cancer tissues and cells is one of the biggest hurdles in translating the therapeutic potential into clinical reality. The overall goal of our study is to develop a novel, efficient and safe multifunctional targeted drug delivery system (DDS) for in vivo simultaneous delivery of therapeutic siRNA molecules and traditional anticancer drugs specifically to cancer tissues and cells.

Date: Friday, February 5, 2010

Times: Social 5:30 PM

Dinner 6:00 PM Lecture 7:00 PM

Place: Faculty Dining Room

206 Michael B. Gilligan Student Union Building New Jersey City University 2039 Kennedy Blvd.

Jersey City, NJ

Cost: Dinner \$20.00 (\$10 for students).

RSVP: Ms. Kathy Williams (201)200-3066, e-mail: kwilliams2@NJCU.edu by

January 27, 2010.

Directions to NJCU:

Map and directions can be found at www.njcu.edu/i2e/visit/directions.asp



LONG ISLAND SUBSECTION

Towards Acquisition of Activity-Based Biosensors and Small Molecule Inhibitors of Nek2 - A Kinase Implicated In Cancer

Speaker: Dr. Sanjay Kumar

Queens College - CUNY

A direct activity-based measurement of a kinase in a natural intracellular environment is crucial for correlating activity with its invivo function. Nek2 is a centrosomal serine/threonine kinase and its expression is significantly elevated in many different forms of cancer. Despite its involvement in a variety of cancer types, many of its precise intracellular roles in oncogenic transformation remain to be discovered. This gap in our understanding of Nek2 biology is primarily due to the lack of available chemical tools needed for in-vivo applications. Furthermore, it needs to be established if small molecule inhibition of intracellular Nek2 kinase activity is a promising strategy for cancer drug development. Currently there are no potent and specific inhibitory agents of Nek2 kinase. We are developing activity-based, fluorescence-responsive specific biosensors, and small molecule inhibitory agents of Nek2 kinase that will be used to delineate the undocumented function of this kinase in both normal and diseased cancer cells.

Date: Thursday, February 11, 2010

Time: Seminar 6:00 PM
Place: Hofstra University
Breslin Hall. Room 211

(Please note that this is a different

room than past seminars at

Hofstra)

Cost: Seminar is free and open to all.

Time: Dinner 7:30 PM
Place: At a nearby restaurant

Cost: \$25.00 per person

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

Metabotropic Glutamate Receptors: Translation from Discovery to Clinical Trials

Organizers: Robbin Brodbeck

Drug Discovery Biology Lundbeck Research

Sid Topiel

Computational Chemistry Lundbeck Research-USA

Speakers: Jean-Philippe Pin

INSERM - CNRS -Université de Montpellier

Bita Moghaddam

Departments of Neuroscience

and Psychiatry University of Pittsburgh

Colleen Niswender
Departmant of Pharmacology
Vanderbilt University
School of Medicine

Mark Bear

Picower Institute for Learning

and Memory

MIT

Latecomers to the super-family of GPCRs, the metabotropic glutamate receptors (mGluRs) were not described until 1987 and were cloned in the early nineties. Today they are considered by many to be the single most promising new collection of targets for CNS drug discovery, with therapeutic potential to treat illnesses ranging from migraine to esophageal reflux, and from schizophrenia to Parkinson's disease. Since the early nineties, advances and some unusual findings have come at a dizzying speed. The first talks will describe studies leading to the discovery that these GPCRs exist as obligate dimers with fascinating consequences for intramolecular signal transduction. Later discussion will introduce the role for mGLuRs in regulating glutamatergic neurotransmission and its effect on behavioral pharmacology and neurochemistry. With the advent of highly efficient cell-based screening techniques, it has been possible to identify an array of small molecules that have a variety of modulatory effects. The pharmacology of these novel compounds will be described, and we will see what they reveal about the role of mGlu4 and mGlu5 receptors in motor function related to Parkinson's, and neuronal plasticity, respectively. The last two speakers will provide the therapeutic rationale for using CNS active small molecules for the treatment of schizophrenia, and the genetically linked fragile-X syndrome

Date: Tuesday, February 23, 2010

Time: 1:00pm - 5:00pm

Place: New York Academy of Sciences

Conference Center

7 World Trade Center – 40th floor 250 Greenwich St. (at Barclay St.)

New York, NY

Reserve a seat on-line at: www.nyas.org/events

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HIGH SCHOOL TEACHERS TOPICAL GROUP

Great Mysteries in Astrophysics

Speaker: Dr. Roy R. Gould

Director, NASA-Smithsonian Universe Education Forum Harvard-Smithsonian Center

for Astrophysics Cambridge, MA

rgould@cfa.harvard.edu

Some of the universe's deepest mysteries, such as the origin of the universe and the nature of black holes, are remarkably simple to describe. We'll look at the latest discoveries about these astrophysical frontiers, and with the help of some spectacular new visualizations, we'll probe the concepts needed

to make sense of the current research. Along the way, we'll dispel some misconceptions common even within the scientific community. Finally, we'll look at recent images of the universe in all their glory, and discuss why and how the universe seems to be so hospitable to life.

Date: Friday, February 26, 2010 Time: 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

Time: Meeting 7:15 PM
Place: New York University

Silver Center Room 207 32 Waverly Place (South-east corner Washington Sq. East)

New York, NY

Security at NYU requires that you show a picture ID to enter the building. In case of unexpected severe weather, call John Roeder, 212-497-6500, between 9 AM and 2 PM to verify that meeting is still on; 914-961-8882 for other info.

Note: Street parking is free after 6:00 PM. 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

Thirteenth Annual Frances S. Sterrett Environmental Chemistry Symposium

SAVE THE DATE!

The annual Frances S. Sterrett Symposium is dedicated to presenting the public with up-to-date, factual scientific information on environmental topics. Watch for updates at the New York section web site: www.newyorkacs.org.

Date: Thursday, May 20, 2010
Times: 8:30 AM – 2:00 PM
Place: Hofstra University

58TH ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM

Sponsored by: The New York Chemistry

Students' Association of the American Chemical Society's New York Section

The symposium provides an excellent opportunity for undergraduate chemistry students in the NY metropolitan area to present the results of their research. The program includes a keynote address, presentation of student papers (15 minute talks to small groups), followed by a luncheon.

Last year's URS, at Pace University in Pleasantville was a great success; we had over 120 presentations by students from all over the New York region. The keynote address was given by Dr. Michael Alekshun from Schering Plough.

For more information go to:

http://newyorkacs.org/grp_students.html

Date: Saturday, May 8, 2010

Place: Adelphi University

If you have any questions please contact: Alison Hyslop, Co-chair hyslopa@stjohns.edu

Sharon Lall-Ramnarine, Co-chair slallramnarine@qcc.cuny.edu

JaimeLee Rizzo, Co-chair jrizzo@pace.edu



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.



WILLIAM H. NICHOLS MEDAL DISTINGUISHED SYMPOSIUM AND AWARD BANQUET



Symposium: New Materials for Function: The Stuff That Dreams Are Made Of

Award Recipient: Professor Tobin J. Marks

Vladimir N. Ipatieff Professor of Chemistry

Professor of Materials Science

and Engineering Northwestern University

Date: Friday, March 5, 2010

Times: Registration 12:30 PM Registration

Symposium 1:00 PM - 5:30 PM

Reception 5:45 PM Award Dinner 6:45 PM

Place: Crowne Plaza Hotel, White Plains, NY

	PROGRAM	
1:00 PM	Welcome	Mr. Frank R. Romano 2010 Chair ACS, New York Section Agilent Technologies
1:05 PM	Opening of the Distinguished Symposium	Dr. Hiroko I. Karan 2010 Chair-elect ACS, New York Section City University of New York Medgar Evers College
1:15 PM	Nanowires as a Platform for Nanoscience and Nanotechnology	Professor Charles M. Lieber Dept. of Chemistry and Chemical Biology Harvard University
2:00 PM	Organic Electronics and Optoelectronics: Learning from Tobin	Professor. Mark A. Ratner Dept. of Chemistry and Materials Science and Engineering Northwestern University
2:45 PM	Molecular Design, Function, and Commercial Application of Shape Selective Catalysts for the Petrochemical Industry	Dr. David L. Stern ExxonMobil Refining & Supply Company
3:30 PM	Coffee Break	
4:00 PM	Synthesis and Use of 3-d Heterostructured Materials	Professor Galen D. Stucky Dept. of Chemistry and Biochemistry and Materials Department University of California Santa Barbara
4:45 PM	Self-Assembly Processes for Fabricating Unconventional Organic, Organometallic, and Inorganic Electronic Circuitry	Professor Tobin J. Marks NICHOLS MEDALIST
5:45 PM	Social Hour	
6:45 PM	William H. Nichols Medal Award Dinner	

More information regarding the Symposium is available on the New York Section's website at http://www.NewYorkACS.org

Tickets may be reserved using the following form:

RESERVATION FORM

2010 WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM & MEDAL AWARD BANQUET

in honor of Professor Tobin J. Marks, Northwestern University Return to: ACS, New York Section, c/o Dr. Neil D. Jespersen, Department of Chemistry, St. John's University, 8000 Utopia Parkway, Jamaica, NY 11439 (516) 883-7510 Please reserve ____ places for symposium & banquet at \$100/person ACS member ____ places for symposium & banquet at \$110/person Non-member ___ places for banquet at \$90/person ___ places for symposium only at \$40/person, ACS member ____ places for symposium only at \$50/person Non-member places for symposium only at \$20/person Student or unemployed (For table reservations of 8 or more, use the ACS member \$100/person rate for combination tickets) Reserve a table in the name of: Names of quests are: Indicate numbers in your group who choose: Chicken___ Prime Rib ___ Salmon ___ Mail Tickets to: Name: Address: _____

Check for \$ enclosed



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, February 22, 2010

Time: 6:00 PM

Place: Rutgers University

Wright-Rieman Labs, Room 260 Busch Campus, 610 Taylor Road

Piscataway, NJ 08854 Cost: \$5.00 - pizza dinner

Directions can be found using mapquest and the address above. A map of the campus can be found at http://maps.rutgers.edu/maps/default.aspx?campus=4.

Reservations: call (732) 463-7271 or email njacsoffice@aol.com prior to Wednesday, February 17, 2010.

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.

Next Meetings:

Monday, March 29, 2010 Monday, April 26, 2010 Monday, May 17, 2010



TEACHER AFFILIATES

Executive Committee Meeting

Date: Thursday, February 4, 2010

Time: 4:30 PM

Place: Franklin Township High School

(note change) 500 Elizabeth Avenue

Somerset, NJ

Contact: Eve A. Krupka eakrupka@optimum.net

CAREERS IN TRANSITION GROUP

Job Hunting??

Are you aware that the North Jersey Section holds monthly meetings at Fairleigh Dickinson University in Madison 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 the Careers In Transition Group will be held **Thursday**, **February 4, 2010**, in the Rice Lounge on the first floor of the New Academic Building. The meeting will start at 5:30 PM and end at 9:00. There will be a Dutch-treat dinner. To get the most from the meeting, be sure to bring transparencies of your resume.

Please contact **vjkuck@yahoo.com**, if you plan on attending this meeting.



ChemTAG

Make and Takes

Date: Wednesday, February 10, 2010

Time: 4-6 PM

Place: East Brunswick High School

380 Cranbury Road East Brunswick, NJ

DIRECTIONS:

www.hs.ebruns.k12.nj.us/hs/Directions.html

Contact: Bobbi Gorman: rosellerams@yahoo.com

SIRIRISE

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

SCENES FROM THE NORTH JERSEY POLYMER TOPICAL GROUP SYMPOSIUM ON TISSUE ENGINEERING

The symposium was held on October 29, 2009 at the Cook College Campus Center, Rutgers University, New Brunswick, NJ. It was organized by the NJACS Polymer Topical Group (Professors Michael Jaffe and Treena Livingston Arinzeh [Co-organizers, NJIT - Newark], Dr. Tamal Ghosh [Poster Chair, T. Ghosh & Assoc.], Dr. Nicole Harris [Exhibits Chair, Sun Chemical]); and cosponsored by The Society for Biomaterials.



John
Adams
(Chem Pharma)
behind
the registration
table:
"Easy
volunteer
job with
NJACS'
online
registration!"

There were 67 registrants. The attendees were compose of 45% ACS members, 14% non-members and 41% students.



Professor Helen Lu (Columbia University) spoke on the topic of biomimetic scaffold design for integrative soft tissue repair.



Dr. Patrick Snowhill (on left, Integra LifeSciences Corp) discussed regenerative duraplasty. He reviewed some of the fine points with Dr. Bill Suits (NJAC Liaison).



Professor Treena Livingston Arinzeh (NJIT, symposium co-organizer and speaker) on right is very patient with an attendee. Her topic was polymeric scaffolds for stem cell tissue engineering.

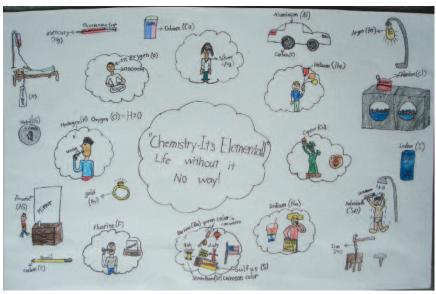


Dr. Willis Hammond PTG chair welcomed the speakers and attendees and acknowledged the sponsors during his opening remarks.

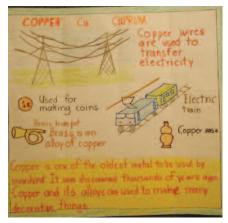
(Photos courtesy of Tom Pacansky)

NATIONAL CHEMISTRY WEEK POSTER CONTEST WINNERS

The North Jersey Section is proud to announce that of the four grade categories for NCW Poster Winners, we received 1st Place in the National ACS event for the K- Grade 2 and Grade 3 – 5 categories. Both winning designs were from the Martin Luther King Elementary School in Edison, NJ. Sunay Dubey from Mrs. Lippe's grade 2 class and Oscar Chen from Mrs. Saraiya's grade 4 class were the winning artists. Congratulations!



Above is NJACS and National ACS first place winning design. This poster was drawn by Sunay Dubey from Mrs. Lippe's Grade 2 class.

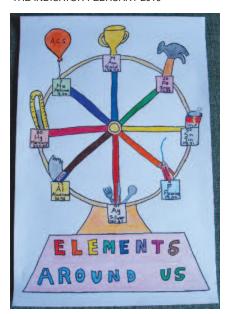


Winner #2 is Aniket Narkhede from Grade 2 of Mrs. Lippe at Martin Luther King Elementary School in Edison.

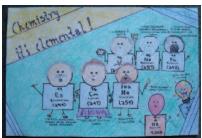


Winner #3 is Rachel Chu from Grade 2 of Mrs. Lippe at Martin Luther King Elementary School in Edison.

(Photos courtesy of Bobbi Gorman)



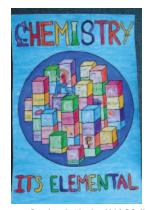
Above is NJACS and National ACS first place winning design. This poster was drawn by Oscar Chen, Grade 4, Mrs. Saraiya's class in Martin Luther King Elementary School in Edison.



In Category Grades 6-8, the NJACS first place winner was Sreeja Kodali from Marlboro Memorial Middle School and the teacher is Christine Farrell.



The second place winner was Alexander Vorhees from Ridgefield Park Middle School. The 8th grade teacher is Melody Go.



In Category Grades 9-12, the NJACS first place winner was Melissa Beswick from Kent Place School, Summit, NJ. Her teacher is Heather Lukeman.



In Category Grades 9-12, the NJACS second place winner was Jasmine Yan, a 10th grader at JP STevens HS in Edison. The teacher is Paul Sekuler.



In Category Grades 9-12, the NJACS third place winner was Nicole Tsai from High Technology HS in Lincroft. Her teacher is Tracey Valetutto.

YOUNGER CHEMISTS COMMITTEE

The Rutgers Science Careers Symposium held on December 8, 2009 at Rutgers, The State University of New Jersey was a grand success! The highly anticipated event was hosted by the NJACS Younger Chemists Committee and the Rutgers Chemistry Society undergraduate association.

The event was open to the public with participants ranging from undergraduate students to graduate students and local chemistry professionals. The event was met with great enthusiasm with more than 200 people registered for the event. Ten sponsors from industry and other universities were represented and joined in the networking session.

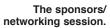
The keynote speakers Ivan Amato and Valerie Kuck provided information about science-related careers. Ivan is an independent writer and former C&E News editor while Valerie is a career consultant and

member of the ACS Board of Directors. The career panel, moderated by Bill Suits, featured four panelists in various fields; Lauren Castelli from Givaudan. Cierra Green from the New Jersey Medical Examiner's Office, Landon Greene from Bristol-Myers Squibb, and Al Maglio from BASF Catalysts LLC, shared their experiences of how their career paths led them to their current positions and gave advice on getting jobs. Both Lauren and Cierra are members of the Younger Chemists Committee of the North Jersey ACS. There were a lot of exciting interactions as the speakers and panelists answered questions from the audience and made themselves available to students at the end of the program.

The event was organized by YCC chair Monica Sekharan and executive members Batsal Devkota, Chenghua Shao, and Jing Zhou, with YCC adviser Bill Suits and Rutgers Chemistry Society president Luming Li.



The career panel (from left to right) Lauren Castelli, Cierra Green, Landon Greene, and Al Maglio.







The audience.

(Photos courtesy of Monica Sekharan)

Call for Nominations

2010 SISTER MARIAN JOSÉ SMITH EXCELLENCE IN EDUCATION AWARD

This American Chemical Society award consists of \$1,000 prize and a recognition plaque. It recognizes a Chemistry professor from a degree-granting Institution in the North Jersey area for inspiring students and launching them on successful careers in chemistry as manifested by their accomplishments.

Please submit nominations and supporting letters to Jiwen Chen, Awards Committee Chair, c/o NJ ACS, 4 Cameron Road, Piscataway, NJ 08854. Tel: 609-818-6319, email: jchen@njacs.org. Nominations must be received by February 19, 2010. Visit http://www.njacs.org/awards.html#jose for more information and a list of past recipients.



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DISTINGUISHED SCIENTIST AWARD

The Westchester Chemical Society, New York subsection, is seeking nominations for the its Distinguished Scientist Award. The nominee must either work or reside in Westchester County, New York. The award is presented in May, 2010. Send nominee resume to: Dr. Joseph Sencen, 5 Summit Circle, Somers, New York, 10589 or jsencen@optonline.net

Call for Applicants

ACS — TWO STUDENT AWARDS IN GREEN CHEMISTRY

Apply by February 1

The Joseph Breen Memorial Fellowship sponsors young international green chemistry scholars to participate in an international green chemistry technical meeting, conference, or training program of their choosing. "Young" international scholar is defined as undergraduate students, graduate students, and post-docs. This award is sponsored by a fund that commemorates the commitment and accomplishments of Joe Breen for the advancement of green chemistry.

The Kenneth G. Hancock Memorial Award honors outstanding student contributions to furthering the goals of green chemistry through research or education. The award is a one-time cash award in the amount of \$1,000 (USD) and is open to all undergraduate and graduate students. The award is sponsored by the ACS Division of Environmental Chemistry and the U.S. Department of Commerce, National Institute of Standards & Technology.

Please help the ACS Green Chemistry Institute® spread the word about these awards to students and young scholars. There is no limit on the number of applications that can be submitted from any one academic institution or project advisor, and students may apply for both awards. For details on how to apply for the awards, go to: www.acs.org/greenchemistry > Green Chemistry Awards.

Partners

The Philadelphia Organic Chemists' Club (POCC)

The Philadelphia Organic Chemists' Club (POCC) is one of the oldest independent chemistry clubs in the United States and plays a vital role in fostering the impressive nexus of organic chemistry in this area. The central purpose of the POCC is to provide a forum and facilitate interactions between scientists from academia and industry in the greater Philadelphia area. Thus, in conjunction with area universities and chemical companies, the POCC brings preeminent organic chemists to speak to a broad audience of chemists in the area.

Every month for the past 64 years, the POCC has brought together the best of the greater Philadelphia area's industrial and academic researchers for monthly seminars, an annual symposium and award addresses including the POCC Symposium, The POCC Award and Poster Session and the Allan R. Day Award Lecture. Typically, the POCC meets on the last Thursday evening of the month. Prior to the seminar, there is a social hour at 5:30 pm and a sit down dinner at 6:00 pm at a restaurant near the University of Pennsylvania. The seminar follows at 8:00 p.m. in the University of Pennsylvania Chemistry Department.

Our website (http://www.pocclub.org/) is the source of up-to-date information about the organization. There are links to our schedule of speakers, membership and officer information as well as to area chemical companies and chemistry departments. The POCC purposely keeps its annual dues low (\$20, \$10 for students) and encourages attendance at our events by keeping fees to a minimum. As a consequence, we rely on the generosity of regional businesses to help defray our operating and unanticipated expenses beyond those covered by our membership dues.

The POCC welcomes you to add to the rich history of organic chemistry in the greater Philadelphia area by joining our club (http://www.pocclub.org/POCC_join.html) and attending our many seminars and symposium throughout the year. For more information see the http://www.pocclub.org/.

If you have comments on this column or suggestions of societies or groups providing

programming which may interest ACS members e-mail Partners@TheIndicator.org



Research and Development Council of New Jersey

For nearly half a century, the Newark-based Research and Development Council of New Jersey has been dedicated to cultivating an environment supportive of the advancement of research and development throughout New Jersey. Established in 1962, the Council was created to serve as a unified voice for the three R&D sectors — industry, academia and government — to work with the State to create an environment R&D could thrive in.

Currently chaired by ExxonMobil Manager Thomas F. Degnan, Jr., the Council's past accomplishments include: raising the funds for the design and construction of Liberty Science Center, supporting the Science Olympiad student tournament, establishing R&D tax credits for research firms, and annually awarding dozens of scholarships to college students pursuing an education in R&D related fields.

Recognizing that there is an unrivaled culture of innovation in New Jersey, every year the Council selects pioneering NJ inventions for their contribution to R&D and honors their inventors with the Council's distinguished Thomas Alva Edison Patent Award. In 2009, the Council selected 12 patent awards, which recognized 55 inventors who worked on those patents. These inventors were honored at the Council's 30th Annual Awards Dinner which was held at the Liberty Science Center located in Jersey City.

The Council is a nonprofit 501(c)(3) organization whose membership includes representatives from academia, government and industry, including several Fortune 500 companies. For more information on the Council, please visit the Council's website at www.rdnj.org or call the Council's office at (973) 274-8336.

If you have comments on this column or suggestions of societies or groups providing programming which may interest ACS members e-mail Partners@TheIndicator.org

Volunteerism

VOLUNTEER CORNER

Now is the time for high school teachers to register online to present workshops at the New Jersey Science Convention to be held on October 12th and 13th, 2010. Remember to mark the box that you were asked by ACS-TA to present. Then notify the chair of NJACS-TA, Eve Krupka (eakrupka@optimum.com), to let her know that you did this. We also need you to commit early to lead or present as part of our Demo Den sessions so come to a ChemTAG meeting or contact Eve.

It's also time to think about "Chemists Celebrate Earth Day" by planning special community and classroom events. Volunteer to do a program at a library or for scout troops. Earth Day is **Thursday, April 22, 2010**.

It is never too early to plan for National Chemistry Week and we are looking for people to volunteer to do parts of the work involved with our NCW celebration. Contact Bobbi Gorman (rosellerams@yahoo.com) if you can fill this need.

ACS News

OBAMA ANNOUNCES NATIONAL LAB DAY

On November 23, President Barack Obama announced the establishment of National Lab Day, an effort supported by ACS and 190 other organizations representing more than 6.5 million science, technology, engineering and math (STEM) professionals.

The first National Lab Day is tentatively set for early May 2010 and will be part of a large, ongoing STEM initiative called "Educate to Innovate." ACS and other organizers hope National Lab Day will help stimulate more hands-on science learning by fostering enduring collaborations between individual (STEM) professionals, teachers and students. ACS Chemistry Ambassadors are already making these connections. To join the effort or learn more, visit www.acs.org/chemsitryambassadors and www.nationallabday.org.

CALL TO ACTION

Working Together for a Sustainable Future

The ACS Board of Directors and the Sustainability Stakeholders Steering group (S3G) are putting forth a CALL to action. The CALL is the means by which the Society will engage our members and stakeholders to Collaborate, Advance, Learn and Lead on the issue of sustainability.

Goal 3 of the ACS Strategic Plan for 2009 and Beyond states how the Society is focused on "Addressing Global Challenges" through chemistry. The sustainability CALL to action is a roadmap of seven avenues that chemists, chemistry, and the American Chemical Society can use to address the global challenges of sustainability. We aspire to achieve the following through the CALL to action at https://communities.acs.org/message/3726:

- · Green Operations
- Advance the Science
- Inform our Members
- Educate the Public
- Prepare Future Chemists
- Policy Advocacy
- Recognize Best Practices

The Society has begun to work in each of these areas, but much more needs to be done. The spring 2010 ACS National Meeting in San Francisco will have the theme of "Chemistry for a Sustainable World." In addition to attending symposia and listening to technical presentations, you will be able to participate in identifying and building new initiatives through a wide-ranging engagement event and forum.

ACS looks forward to working with you to achieve our vision of "Improving people's lives through the transforming power of chemistry". Join the ACS Network at www.acs.org/network or log into the group at https://communities.acs.org/ sustainability-stakeholders-group to learn more about the initiative and to answer the CALL to action.

Learn more about sustainability related programming in the New York and North Jersey Sections in future issues of *The Indicator*.

(continued on page 22)

ACS NEWS

(continued from page 21)

GREEN CHEMISTRY

Save the Dates: June 21-24!

The 14th Annual Green Chemistry & Engineering Conference returns to downtown Washington, DC on June 21-24, 2010. With the theme "Innovation and Application" and with one of the renowned founders of green chemistry. Dr. John Warner (President and CTO, Warner Babcock Institute for Green Chemistry) as the chair, this conference is shaping up to be one you won't want to miss! The tentative schedule for the week Student begins with а Workshop. Roundtable Meetings, and the Presidential Green Chemistry Challenge Ceremony on Monday, June 21, followed by technical programming on June 22-24. Please visit the conference website, www.gcande.org, where more details will be posted as they become available.

Tools That Work

Local Section Websites

The NY and No. Jersey ACS Sections publish *The Indicator* newsletter and distribute it through the website **www.theindicator.org**. Naturally, each section also has its own website (www.newyorkacs.org and www.njacs.org). These are the primary ways that our sections communicate to members. Both the newsletter and websites provide the following:

- Calendar listings for upcoming events -section-wide, symposia, subsections, discussion groups, committees, teachers, ACS-sponsored activities for kids, and certain related organizations.
- News coverage of recent events, including photos.
- · Contact information for section officers.
- · Calls for papers and award nominations
- Registration instructions for upcoming events

Since the websites don't have the same space constraints as *The Indicator*, they also offer

- General information about the sections, including By-Laws, Annual Reports
- · More detailed information about subsec-

tions, discussion groups, and committees

- · Online registration for certain events
- Links to other resources for Chemists on the Internet
- · More photos and longer write-ups
- · Career development resources
- · Longer retention of current information.

Each issue of *The Indicator* is a monthly snapshot of current activities, with minimal overlap from one issue to the next, meant to be readable from cover to cover, and includes a few general-interest columns that don't appear at the websites, such as the essays on historical events in Chemistry, the new features such as this one (Tools that Work), Members on the Move, etc. And of course the paper edition of *The Indicator* serves a special segment of our membership, those who have no Internet access or who prefer paper copy.

By contrast, the websites are organized for drilling down to find specific information rather than reading "cover to cover", and much of the information is fairly static from month to month

Interestingly, although the "moving time window" of current information is longer for the websites, it is *The Indicator* that offers a truly historical view of the Sections, since all issues going back to 2004 are archived as PDF files at www.TheIndicator.org website. Moreover printed copies of all issues since inception 90 years ago are archived by each section.

In these ways, the websites of the two Sections complement *The Indicator* rather than supplant it.

Note that the No. Jersey Section website and *The Indicator* website offer keyword search. For the NY Section website, just use Google and include the special search term **site:www.newyorkacs.org** (no space after the colon). In fact, this trick works for nearly all websites!

Finally, here's a message from the two webmasters and the editor of *The Indicator*. All three depend on having members submit relevant information for publication and updates for existing content. Please participate!

If you have comments or suggestions of tools to highlight in this column e-mail Tools@TheIndicator.org.

THE BIRTH OF THE NATIONAL SCIENCE FOUNDATION

(continued from page 7)

Systematic Biology

Dr. E. Raymond Hall and Dr. Rollin H. Baker, University of Kansas, Speciation of North American Mammals, \$23,900

Dr. Truman G. Yuncker, DePauw University, Botanical Survey of the Tongan Islands, \$3,000

Dr. Frank N. Young, Indiana University, Biology and Taxonomy of Aguatic Beetles, \$2,400

Dr. John R. Reeder, Yale University, Embryos of Gramineae as an Aid to Classification and Phylogency, \$4,800.

Dr. John W. Hall, University of Minnesota, Coal Ball Floras, \$780

Microbiology

Dr. Paul R. Burkholer, Yale University, Development of a National Collection of Algae, \$10,000

Aquatic Biology

L. R. Blinks, Stanford University, Basic Biology of Marine Organisms, \$34,500

Dr. G. Evelyn Hutchinson, Yale University, Amino Acid Analyses of Water, Mud, and Organisms of Lakes, \$1,400

Experimental Embryology

Dr. James D. Ebert, Indiana University, Origin of Tissue-Specific Proteins in the Chick Embryo, \$16,500

Dr. I.C. Kichen, University of Mississippi, Culture of the Intact Amphibian Neural System as an Isolated Explant, \$10,350

Dr. Louis E. Delanney, Wabash College, Causative Factors in the Development of the Spleen, \$3,200

Genetics

Dr. Charles B. Heiser Jr., Indiana University, Variety and Speciation in Sunflowers, \$5,300

Dr. Frits W. Went, California Institute of Technology, Differences Among Races and Varieties of Higher Plants, \$21,700

Dr. I.M. Lerner and Dr. E.R. Dempster, University of California Berkeley, Polygenic Variability, \$50.000

Immunology

Dr. Manfred Mayer, Johns Hopkins University, Cytotoxic Reactions Mediated by Antibody and Complement, \$41,400

J.W. Williams, University of Wisconsin, Kinetic Methods for the Determination of the Valence of Precipitating Antibodies, \$14,200

Experimental Plant Biology

Dr. James Bonner, California Institute of Technology, Photoperiodism and vernalization, \$17,700

Dr. James Bonner, California Institute of Technology, The Biochemistry of Plant Growth, \$5.000

Dr. Arthur D. Galston, California Institute of Technology, Auxin Physiology, \$5,000

Dr. Victor M. Cutler Jr., Yale University, Isolation and Culture of Plant Rusts, \$9,900

Photosynthesis

Dr. Robert Emerson, University of Illinois, Carbon Dioxide exchange during the induction period of photosynthesis, \$18,600

Other

National Academy of Sciences, Pacific Science Board, operating expense, \$24,000

At the present time about 20 percent of federal support to academic institutions for basic research is provided by the NSF. The agency's budget was \$6.06 billion in fiscal year 2008.

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