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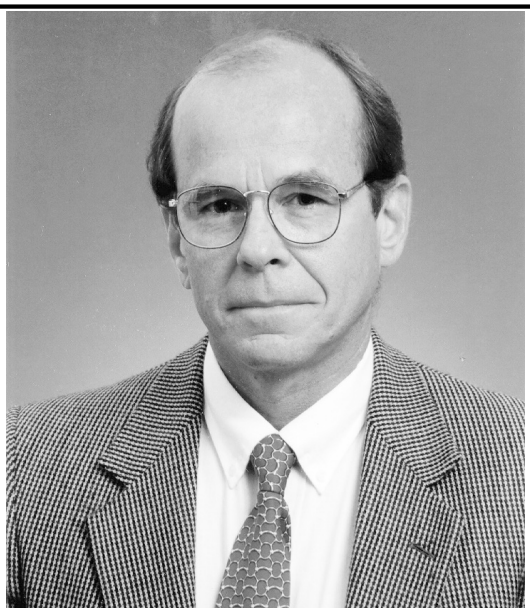

Dr. K. Barry Sharpless

William H. Nichols Medalist for 2006

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SURPRISE

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.

PROFESSOR K. BARRY SHARPLESS
2006 NICHOLS MEDALIST

The ACS New York Section congratulates and extends its best wishes to **Professor K. Barry Sharpless** who will receive the **100th William H. Nichols Medal Award** on March 10, 2006 in White Plains, NY. The Nichols Medal will be presented at an award dinner following the Nichols Distinguished Symposium. Professor Sharpless will be honored ***"For Click Chemistry, A New Strategy for Chemical Discovery."***

Dr. K. Barry Sharpless has always been exclusively interested in useful chemistry. Since he regards the oxidation of olefins as the single most versatile, powerful and reliable class of transformations in organic synthesis, Dr. Sharpless concentrates on expanding the scope of existing oxidative reactions and discovering new ones.

Professor Sharpless is best known for discovering three "name" reactions, general methods for catalytic asymmetric epoxidation, dihydroxylation, and aminohydroxylation. His Nobel Prize citation reads, "many scientists have identified Sharpless' epoxidation [discovered in 1980 with Tsutomu Katsuki] as the most important discovery in the field of synthesis during the past few decades."

Descended from one of the original land purchasers in William Penn's New World venture, Dr. Barry Sharpless received a Quaker education at the Friends Central School, Haverford, Pennsylvania. In 1963 he graduated from Dartmouth College, where he was introduced, most fortuitously, to the wonders of chemistry and chemical research by T. A. Spencer. Following graduate research with E. E. vanTamelen at Stanford University, he completed postdoctoral studies with J. P. Collman, also at Stanford, and at Harvard University with Konrad Bloch. While Sharpless was a graduate student, he recognized a role model in D. H. R. Barton; later, and until his death, Sir Derek became his valued mentor.

Professor Sharpless set up his own laboratory when in 1970 he became an assistant professor at the Massachusetts Institute of Technology. Except for several years in the 1970s when he was a member of Stanford's chemistry faculty, Professor Sharpless remained at MIT until moving to The Scripps Research Institute (TSRI) in 1990. At TSRI he is W. M. Keck Professor of Chemistry and a member of the Skaggs Institute for Chemical Biology.

Dr. K. Barry Sharpless continues at TSRI his career-long search for useful new reactivity and general methods for selectively controlling chemical reactions. A recent creation is click chemistry, a set of powerful, virtually 100% reliable, selective reactions for the rapid synthesis of new compounds *via* heteroatom links. Click chemistry is integral now to all research within the Sharpless Lab, including numerous collaborations with biologists both within TSRI and beyond its walls.

WILLIAM H. NICHOLS DISTINGUISHED SYMPOSIUM AND MEDAL AWARD BANQUET

In honor of Professor K. Barry Sharpless
The Scripps Research Institute

Topic: Keeping It Simple: Click Chemistry in Action

Date: March 10, 2006
Place: Crowne Plaza Hotel, White Plains, NY

1:30 PM	Welcome	Professor Jill K. Rehmann 2006 Chair, ACS New York Section St. Joseph's College
1:35 PM	Opening of the Distinguished Symposium	Mrs. Joan A. Laredo-Liddell 2006 Chair-Elect, ACS New York Section Marymount College of Fordham University
1:45 PM	Dipolar Cycloadditions: Old Dogs, New Tricks	Professor Valery V. Fokin The Scripps Research Institute

Despite of the high energy content, organic azides and alkynes are chemically orthogonal to an unusually broad range of reagents, solvents, and other functional groups. Although their thermal cycloaddition reaction is exceedingly slow due to the high energy of activation (ca. 24-26 kcal/mol), their reactivity towards each other can be revealed by means of an appropriate catalyst. For example, copper(I) results in the formation of the 1,4-disubstituted 1,2,3-triazoles, while ruthenium(II) catalyzes formation of the complementary 1,5-regioisomers. Catalytic azide-alkyne cycloadditions are now among the most efficient ways to permanently unite diverse structures by means of the triazole connections -- permanent chemically inert links that bring together blocks with desired functionality.

Representative examples from our laboratories, as well as important mechanistic aspects of these processes and their implications for the design of other catalytic systems will be discussed in the lecture.

2:30 PM	Towards Bioactive CyClick Peptides.	Professor Jan H. van Maarseveen University of Amsterdam

Small cyclic peptides have been isolated from several species and often they show potent bioactivities. Further exploration is, however, hampered by the difficult synthetic accessibility. It turned out that replacement of one or more backbone amide bonds in small cyclic peptides by 1,4-substituted triazole units greatly improves the synthesis. In addition, it turned out that both electronically and sterically 1,4-substituted triazoles are perfect trans amide isosteres. CyClick analogs will be discussed of the natural cyclic tetrapeptide c[Pro-Val-Pro-Tyr], a tyrosinase inhibitor that cannot be cyclized using traditional lactamization methods.

3:15 PM Coffee Break

3:45 PM	Using Organic Chemistry to Control the Properties of Nanoscopically Defined Materials: From Microprocessors to Hydrogels.	Professor Craig J. Hawker University of California, Santa Barbara

In designing polymeric materials for use in nanotechnology it rapidly becomes apparent that control over all aspects of polymer structure (molecular weight, polydispersity, number and position of functional groups, architecture, etc.) is required if these materials are to be used successfully to create nanostructures in the sub-50 nm size regime. Equally important to the rapid introduction and incorporation of these materials into devices is the development of robust and simple techniques for their synthesis. This last feature will allow a wide range of materials to be prepared efficiently while also permitting non-experts to prepare well-defined materials. The development of facile chemistry for the design and application of materials in advanced storage devices and microelectronics for the information technology industry will be discussed. Further examples will demonstrate that these new synthetic techniques may also have application in other areas such as bio-sensors, DNA chips, delivery devices and high modulus hydrogels.

4:30 PM	How Much Reactivity Does a Chemist Need?	Professor K. Barry Sharpless The Scripps Research Institute

I have borrowed my title from Leo Tolstoy's famous short story How Much Land Does a Man Need? The original is a morality tale writ large, a short story about a man who, in his lust for land, forfeits everything, including his own life. However, though I read it some 50 years ago, it has stuck as a vivid memory and a meaningful icon.

My lecture will consider the chemists' love affair with reactivity. How much more "new reactivity" we think we need, and how by seeing the known in new light we might find creating new properties and functions much easier than we had ever imagined possible, and how chemical orthogonality can enable us to create "Trojan Horse" molecules using Nature's own biochemical tools without Her ever noticing.

5:30 PM Closing of the Distinguished Symposium

MEDAL AWARD CEREMONY AND DINNER

5:45 PM	Social Hour	
6:45 PM	Medal Award Dinner Presiding:	**Professor Jill K. Rehmann** Chair, ACS New York Section 2006
	A.C.S. Greetings:	**Professor E. Ann Nalley** President, American Chemical Society 2006
	Introductory Address:	**Professor Valery V. Fokin** The Scripps Research Institute
		Professor Craig J. Hawker University of California, Santa Barbara
	Presentation of the Medal:	**Professor Jill K. Rehmann** Chair, ACS, New York Section 2006
	Acceptance Address:	**Professor K. Barry Sharpless** Nichols Medalist

For More Information: Please visit the New York Section website at

http://www.NEWYORKACS.org

Tear off reservation form at this line.

RESERVATIONS MUST BE RECEIVED BY March 1, 2006

PLEASE MAIL RESERVATIONS TO: ACS, New York Section Office
St. John's University, Department of Chemistry
8000 Utopia Parkway, Jamaica, NY 11439

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E-mail **njesper1@optonline.net**

		Number	Total
Symposium only:	**$40 ($30 for ACS members)**	____	**$**_____
Student, unemployed, retired	**$10**	____	**$**_____
Banquet only:	**$75**	____	**$**_____
Symposium & Banquet:	**$95 ($85 for ACS members)**	____	**$**_____
Table of 8 or more:	**$85 per person (combination ticket)**		**$**_____

Reserve our table in the name of: _____

Enclosed is my check, payable to: NEW YORK SECTION, ACS in the amount of $ _____

Please attach a list of guests' names and their dinner selections.

Chicken _____ **Beef**_____ **Fish** _____

Tickets will be mailed to the person designated below

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ADDRESS _____

CITY _____STATE _____ ZIP CODE_____

PHONE_____ FAX_____EMAIL_____

THIS MONTH IN CHEMICAL HISTORY #1

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

Prepared for SCALACS, the Journal of the Southern California, Orange County, and San Gorgonio Sections of the American Chemical Society

In my (apparently insatiable) search for early chemistry texts I recently acquired "The Elements of Medical Chemistry" by John Ayrton Paris M.D., F.R.S., F.L.S., Fellow of the Royal College of Physicians of London. This leather-bound volume, published in New York in 1825, has a quotation from Joseph Priestley on its title page: "The objects of Science are so multiplied that it is high time to subdivide them. Thus the numerous branches of an overgrown family in the Patriarchal ages found it necessary to separate; and the convenience of the whole, and the strength and increase of each branch, were promoted by the separation." This I take to be the author's apologia for a narrowly focused work on Medical Chemistry, and he claims that his is the first work in English to be devoted to those aspects of chemistry most useful to the medical practitioner.

In classic fashion, and in place of the usual preface, we are given a 16 page dialogue "Between the Author [A] and a Practitioner [P] who is about to direct the Medical Studies of his Son." A few quotations will give the flavor of this exchange. "A: …I feel no small degree of diffidence in offering advice to a practitioner who has been nearly thirty years in the active exercise of the profession. P: …The truth is that for the last twenty years I have been so absorbed in medical practice, that I have neither found leisure nor inclination to inquire into the improvements of medical education…" "A: …I am by no means satisfied that our system of teaching has been improved. …among our Metropolitan lecturers, may be ranked some of the first philosophers of the age, but there are many competitors , some of whom…have introduced a system of "grinding" or "cramming" .. which allures pupils, from the assistance it affords them in passing an examination…" How little things have changed in 180 years!

The text is devoted to those aspects of chemistry that the author, in his many years of lecturing to medical students, has found to be most applicable to the practice of medicine. It covers in some 460 pages of small print, a wide range of topics including some, such as Gravitation and Cohesion, that would seem to be out of place in a modern course. But the author links these unlikely chemical topics to real chemical problems. Gravitation is really about weights and measures and includes a brief discussion of the difference between weight and mass. Under Cohesion the author treats of phenomena that depend on the state of subdivision of materials including pulverization, trituration, despumation (look it up!), and filtration.

I find very interesting the sections on chemical affinity, elective affinity, and the rather new "Daltonian doctrine, or atomic theory" which had only been announced about a decade earlier. Chemical affinity was a subject of great interest to eighteenth century chemists such as Torbern Bergman and Claude-Louis Berthollet. Bergman's affinity tables held the same place in many lecture halls of his period as periodic tables do today. Here is a simple experiment that Dr. Paris suggests: "Mix together equal weights of magnesia [MgO] and quicklime [CaO], in fine powder, and add diluted nitric acid. After some hours it will be found that a considerable amount of the lime has been dissolved, but that the whole of the magnesia has remained untouched. Hence it is clear that nitric acid has a stronger attraction for lime, than for magnesia." I could not have predicted easily, from my general knowledge of chemistry, the result of that experiment. For muriatic acid [HCl] the order of decreasing affinities of bases is "Baryta, Potass, Soda, Lime, Ammonia, Magnesia." In fact the general subject of displacement reactions, as we would call them, seems to be of great importance to the medical chemist of the early nineteenth century, and Dr. Paris links the subject to the detection of poisons and proposes a kit for such tests.

Dr. Paris is quite up-to-date. He cites Berthollet on "the first distinct views of the relations of the force of affinity to quantity", views that were a forerunner of the Law of Mass Action which would be announced forty years later. He also cites the rebuttal of Berthollet's views by Sir. H. Davy, but has to admit that "excess in quantity of matter will compensate for deficiency of affinity" in some cases.

The text is illustrated by many wood engravings. For instance there is a clear depiction of the famous experiment of Galvani, in the chapter on electricity, in which a dissected pair of frog's legs are attached to separate plates of zinc and silver. When the plates are connected by a wire, the legs twitch. This experiment, celebrated at the end of the eighteenth century, led Volta early in the nineteenth, to develop the electric battery and initiate the field of electrochemistry.

I plan to return to further discussion of this book in my next column.

North Jersey Meetings

http://www.njacs.org

EXECUTIVE COMMITTEE AND SECTION 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: **Friday, March 17, 2006**
Time: 5:30 PM
Place: Robeson Campus Center
Rutgers Newark Campus
Newark, NJ
Cost: Free

Directions: can be found at
http://www.newark.rutgers

Reservations: call 732-463-7271 or email **njacsoffice@aol.com** prior to Wednesday, March 8, 2006.

NORTH JERSEY LEADERSHIP TRAINING MEETING

Section committee chairs, topical group chairs, and section event organizers who are not familiar with the policies and procedures of the section should attend this annual leadership training meeting. Topics will cover financial and reporting responsibilities of groups, and helpful information on organizing and coordinating events will be covered. If you are not currently involved in the section but would like to be, please contact the section chair, Stephen Waller, at **waller@njacs.org** or (973) 443-8783 to find out how your interests can help advance chemistry in North Jersey.

Date: **Saturday, March 18, 2006**
Time: 9:00 AM
Place: 2nd Floor Classroom
Recreational Center
Fairleigh Dickinson University
Madison, NJ
Cost: Free

Directions: can be found at
http://view.fdu.edu

Reservations required: call 732-463-7271 or email **njacsoffice@aol.com** prior to Wednesday, March 8, 2006.

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 theses 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 searching.

The next meeting for the Careers In Transition Group will be held **Thursday, March 2, 2006**, 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.

MASS SPECTROMETRY DISCUSSION GROUP

Drug Discovery Protein Research Using New TOF Technology

Sponsored by Agilent Technologies

Date: **Tuesday, March 7, 2006**
Place: Somerset Marriott
Somerset, NJ
Time: Social 5:30 PM
Dinner 6:15 PM
Announcements and
Presentations 7:00 PM
Cost: None

Please visit **www.njacs.org** for registration.

TEACHER AFFILIATES

Executive Committee Meeting

Date: **Monday, March 13, 2006**
Time: 4:30 PM
Place: Chatham High School
255 Lafayette Avenue
Chatham, NJ

Contact: Diane Krone at 201-385-4810 or **kroned@optonline.net**

ChemCentral MEETING

Date: **Tuesday, March 14, 2006**
Place: Rumson Fair-Haven Regional High School
74 Ridge Road
Rumson, NJ

Contact: Dennis Gannon at **dgagnon@rfhrhs.org**

ChemTAG MEETING

Date: **Wednesday, March 15, 2006**
Times: 4:00-6:00 PM
Place: Voorhees High School
256 Route 513
Glen Gardner, NJ

Contact: **BenCarter@nhvweb.net**

NEW JERSEY GROUP OF SMALL CHEMICAL BUSINESSES

New Jersey's Best Practices Standards at TCPA/DPCC Chemical Sector Facilities

Speaker: Brian Bennett, Ph.D., CSP
Safety Manger
Akzo Nobel
Polymer Chemicals LLC
Edison, NJ

Brian Bennett has over 20 years experience in the safety, health, security, and emergency response fields within the chemical industry. He is currently serving as Chairman of the NJ Domestic Security Task Force Chemical Infrastructure Sector Committee, and was a co-author of the NJ Security Best Practices document. He has been a volunteer firefighter for 23 years and is Fire Chief in Woodbridge Township, N.J. He holds several professional certifications, including Certified Safety Professional, Certified Hazardous Materials Manager, and Certified Homeland Security--Level 3. He holds a bachelor's degree in chemical engineering, a master's degree in occupational safety and industrial hygiene, and a doctorate in safety engineering.

On November 19, 2005, New Jersey issued a Prescriptive Order (PO) mandating the first general security requirements for the chemical/processing industries in the nation. The PO, issued by Acting Governor Codey, calls for enforceable plant security practices for New Jersey's 140 chemical facilities such as to provide the public and workers greater protection from potential terrorist acts. Under the new requirements, certain chemical facilities in New Jersey have 120 days to develop an assessment of facility vulnerabilities and hazards that might be exploited by potential terrorists.

Here is your chance to get a valuable overview of these new requirements from Brian Bennett, the Chemical Sector's top security expert. This presentation will provide you with the information necessary to make critical security management decisions and to better understand the New Jersey's Best Practices Standards at TCPA/DPCC Chemical Sector Facilities PO. In particular, you will hear comments on the requirements for a site-specific security vulnerability assessment, circumstances that would trigger Inherently Safer Technology and the provisions in the order to allow employees and their collective bargaining representatives the opportunity to identify security issues.

Date: **Thursday, March 16, 2006**
Times: Networking, Cash Bar 5:30 PM
Dinner, Attendee Introductions 6:30 PM
Presentation 7:15 PM
Q & A, Networking, Dessert 8:00 PM
Place: Holiday Inn, North
Frontage Rd.
Newark, NJ
On north side of Newark Airport
Cost: $45 Members; $55 Non-Members

Advance Registration is required. **Register by Midnight Tuesday, March 14.**

Cancellations must also be made by Midnight March 14 or you will be invoiced.

CHEMISTRY AS A LIFE SCIENCE SYMPOSIUM XIII

Friday, March 17, 2006
The Paul Robeson Campus Center
Rutgers, The State University
Newark, New Jersey

Distinguished Speakers:

Robert H. Grubbs
California Institute of Technology
Olefin Metathesis Catalysts for the Synthesis of Complex Structures

Amir H. Hoveyda
Boston College
Solutions to Some Difficult Problems in Catalytic Enantioselective Synthesis

Madeleine M. Joullié
University of Pennsylvania
Synthetic Investigations of Naturally Occurring Metabolites and Their Use as Antimitotic Agents

Koji Nakanishi
Columbia University
Nature and Natural Product Chemistry

Matthew D. Shair
Harvard University
Discovery and Use of Small Molecules to Illuminate Life Processes

F. Dean Toste
University of California at Berkeley
Transition Metal Catalyzed Reactions for Organic Synthesis

7:30 AM	Complimentary Continental Breakfast
8:30 AM	Welcoming Remarks
8:45 AM – 12:00 PM	Lectures
12:00 PM – 2:00 PM	Lunch Break
2:00 – 5:00 PM	Lectures
5:00 PM	Sponsors' Reception

This symposium is free and open to the public. Advanced registration is required. All registration must be completed at the following website:
http://njacs.org

NORTH JERSEY CHROMATOGRAPHY GROUP

Common Analytical Methods in Forensic Science

Speaker: Vincent J. Desiderio
Forensic Scientist I
New Jersey State Police
Office of Forensic Sciences
Central Laboratoy
Hamilton, NJ

Mr. Desiderio has a B.S. in Human Biology from the State University of New York at Albany and an M.S. in Forensic Science from John Jay College of Criminal Justice. He has been employed as a forensic scientist for the past seven years, during which time he has served as a forensic consultant with Forensic Analytical Specialties Incorporated in California and a Criminalist II with the New York City Police Department's Forensic Investigation Division. For the past three years he has worked as a Forensic Scientist with the New Jersey State Police Office of Forensic Sciences in their Central Laboratory where he holds certifications in the analysis of fire debris, low explosives, gunshot residues, and toolmarks. He has qualified as an expert witness in various disciplines in California, New York, and New Jersey. He is a Diplomate of the American Board of Criminalistics and holds various memberships in the American Academy of Forensic Sciences, the American Chemical Society, the California Association of Criminalists, ASTM E-30, the New Jersey Association of Forensic Scientists, the Northeastern Association of Forensic Scientists, and the Technical Working Group for Fire and Explosions.

Forensic science, simply stated, is the application of science to matters of the law. The forensic sciences encompass numerous different disciplines including but not limited to forensic medicine, forensic anthropology, forensic toxicology, forensic biology, and criminalistics. The typical forensic scientist has to perform numerous different functions including: searching for and identifying relevant items of evidence, comparing items to see if they have a common source, identifying and quantitating various substances, issuing reports on their findings, testifying in courts of law, and researching new techniques and analytes of interest. With these roles in mind, it should come as no surprise that the forensic sciences rely heavily upon common analytical techniques to perform numerous types of examinations on evidentiary materials.

During the course of this presentation the attendee will receive a brief introduction to the field of forensic science, descriptions of common examinations that are performed in the typical forensic laboratory, and a discussion of the application and uses of the most common analytical techniques including microscopy, chromatography, various forms of spectroscopy, and elemental analyisis. In order to illustrate the necessity of such instrumentation, practical examples and case studies will be presented.

* * * * *

The Application of HPLC Chemiluminesce Nitrogen Detector in Pharmaceutical Analysis

Speaker: Peter Tattersall
Senior Research Investigator
Brisol-Myers Squibb

Peter Tattersall is a Senior Research Investigator in Analytical Research and Development at Bristol-Myers Squibb Company in New Jersey. He received his chemistry BSc. and Ph.D. from University of Manchester, UK. He worked in the analytical development department at AstraZeneca, Wilmington prior to joining Bristol-Myers Squibb in 2003 where he currently supports both API and drug product development.

As an orthogonal technique to a conventional UV detection, Chemiluminesce Nitrogen Detector (CLND) measures total nitrogen content of an analyte. The equal molar property has rendered CLND the detector of choice when the availability of reference standard is limited. Thus, HPLC-CLND has been widely used for the quantitation of nitrogen containing impurities in pharmaceutical analysis. In this presentation, the advantages and its limitations of HPLC-CLND will be discussed with a focus on its application in early pharmaceutical development support. Specific examples will be used to demonstrate the applicability of HPLC-CLND in developing stability indicating methods, resolving mass balance issues, and general troubleshooting of analytical methods. In addition, using a broad range of nitrogen containing model compounds, the potential error for impurity quantitation using external standards by equal molar property will be discussed.

Date: **March 23, 2006**
Times: Social Hour 5:30 PM
Dinner 6:30 PM
Speakers 7:30 PM
Place: Somerset Marriott
Somerset, NJ
Cost: $35 ($20 students)

ATTENTION NEW JERSEY HIGH SCHOOL TEACHERS

This year's theme for the high school chemistry students Mole Poster Contest is

Mole Madness

Posters must be sent to Patti Duncan at High Point Regional High School **by Friday, April 28**.

Winners will be announced on June 2nd. Scoring rubric, drawing guidelines, and directions for submitting posters are at **http://www.njacs.org/teachers.html** or contact Patti Duncan at **PDuncan@hpregional.org**.

TEACHER AFFILIATES

Professional Development for Teachers - Advanced Placement Chemistry

NJACS-Teacher Affiliates will present a full day workshop on May 13th to give chemistry teachers the tools they need to teach A.P. Chemistry and to help their students succeed on the A.P. exam. Visit **http://www.njacs.org/teachers.html** for more information and to print a registration form or cantact Patti Duncan at **PDuncan@hpregional.org**.

ChemEssentials WORKSHOPS

Reserve these dates for 2006-07 ChemEssential Workshops

These popular Friday evening workshops provide content, activities, labs, alternate assessments, and dinner. Both new teachers and teachers looking for new ideas will benefit.

August 26, 2006 - Matter

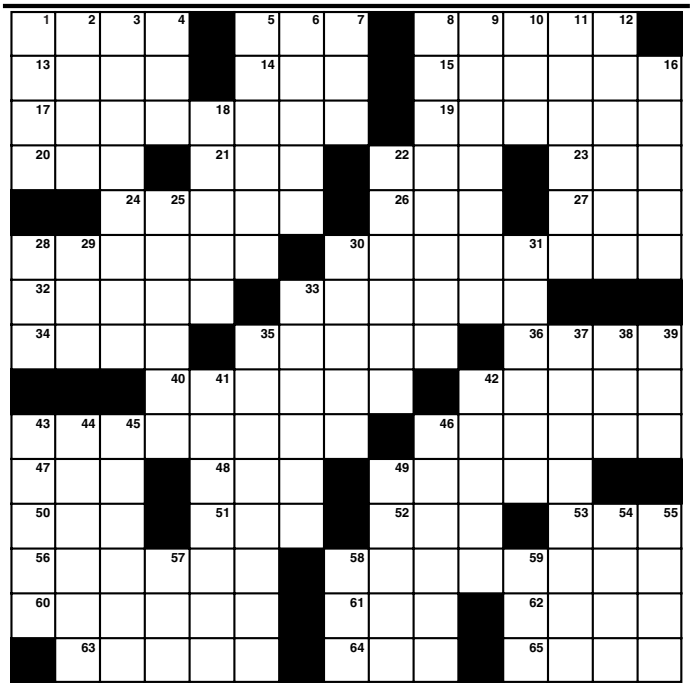
November 17, 2006 - Gases

February 9, 2007 (Snow date, February 16) Solutions

April 20, 2007 - Acids and Bases

Visit **http://www.njacs.org** or contact Patti Duncan at **PDuncan@hpregional.org**

Puzzle



ACROSS
1. Batman West
5. Colonel's eatery
8. Patronage
13. Great English chemist
14. Yale man
15. Grad school documents
17. TV Inventor Vladimir
19. High pitch
20. Interntl. lang.
21. Possessive pronoun
22. "Hi Yo ___ver"
23. A kind of couple
24. Grown up
26. Elements 85 and 53
27. *Norma* ___ (1979)
28. Dung
30. Composer Anton (1824-1896)
32. Wagons
33. Gautama
34. "Out, damned ____!"
35. Curie
36. Outfielder Mondesi
40. Oklahoma Indians
42. Erroneous
43. X-ray man
46. Italian painter
47. Elements 18 and 92
48. Slippery fish
49. Joyce Kilmer poem
50. Mal de ___
51. Scot author's monogram
52. Renegade computer personality
53. McCourt memoir
56. Earl of Cleveland (AL 1930s)
58. CBS inventor Peter
60. Tesla
61. Something to be smelted
62. French word of love
63. Osama Bin _____
64. Unity
65. Picasso did it well

DOWN
1. Carpenter's tool
2. Before sunrise
3. Chemists have his number
4. ___iad (large number)
5. He guessed benzene structure
6. Coquette
7. City in Oh.
8. Problem of the unemployable
9. He had a magic bullet
10. Horse directive
11. *A Star* _____ ('37, '54, '75)
12. Medieval market stalls
16. Ceremonial dinner
18. *Unfaithfully* _____ (1948)
22. Manhattan restaurant
25. Publisher E.F.
28. It turns out lieutenants
29. Hip-hop chatter
30. Martin Van _____
31. Unarmed self defense
33. Good with cream cheese
35. Globe circumnavigator
37. Late TV host Cooke
38. Prosperous nation
39. Quarterback Dawson
41. Unproductive
42. Eugene or Sally
43. Nobel physicist from India
44. It's either good _____
45. Thus spoke Archimedes
46. Irish Rose place
49. Comes with the rose
54. ____ *La Douce* (1963)
55. Twist
57. TV host Serling
58. Sentimental drivel
59. Alfred E. Neuman mag

Solution on page 23.

New York Meetings

www.newyorkacs.org

LONG ISLAND SUBSECTION

Design and Synthesis of Structurally Novel Antifungal Compounds

Speaker: Tanaji Talele
St. John's College of Pharmacy
& Allied Health Sciences

A Comparative Molecular Field Analysis (CoMFA) and Structure-Based Drug Design approach was used for the design of novel antifungal compounds. CoMFA and Docking studies were performed on a diverse set of literature antifungal compounds, which led to the discovery of novel antifungal compounds. Both of these approaches provided detailed requirements for the potent antifungal compound. Specifically, CoMFA studies suggested that electropositive field (blue contour) coupled with steric bulk (green contour) is essential for antifungal activity. Blue contour map with alongside green contour map was located in the vicinity of one of the triazole ring of Fluconazole. This observation led to the replacement of triazole ring of Fluconazole with novel heterocycles such as benzotriazole and morpholine. Benzotriazole analog (VMTT-61) and morpholine analog (VMTT-66) were found to be superior to Fluconazole against a panel of *Candida spp*. These lead compounds were also active against Fluconazole resistant strains of *C. albicans*.

Date: **Thursday, March 2, 2006**
Times: Coffee 5:30 PM
Seminar 6:00 PM
Dinner 7:00 PM
Place: Hofstra University
Lister Auditorium
California Avenue
New Chemistry Building
Hempstead, NY

WESTCHESTER CHEMICAL SOCIETY

The Production of Pharmaceuticals in Africa

Speaker: Dr. Rolande R. Hodel
CEO, AIDSfreeAfrica
Ossining, NY
Mezam Polyclinic
Bamenda, Cameroon

The presenter spent a month in an orphanage in the slums of Nakuru, Kenya and two months at the Mezam Polyclinic in Bamenda, North West Province, Cameroon, West Africa learning about HIV /AIDS in Africa and the problems associated with trying to manufacture pharmaceuticals to treat the disease from a Chemist's perspective. What is really going on? Why does Western intervention have so little success in stemming the epidemic? With the World Health Organization's failed "3 by 5" initiative ("3 by 5" stands for 3 million people in Sub-Sahara Africa on antiretroviral drugs by 2005), where do we go from here? What is the perspective of industrial production of drugs, essentials and antiretrovirals?

Date: **Tuesday, March 14, 2006**
Time: Refreshments: 5:30 PM
Presentation: 6:00 PM
Place: Polytechnic University
Westchester Graduate Center
40 Saw Mill River Road
Hawthorne, NY
Time: Dinner 7:30 PM
Place: A local restaurant

Directions: **http://www.poly.edu/**

For further information, contact Joan Laredo-Liddell at **JLaredoLiddell@aol.com**

HIGH SCHOOL TEACHERS TOPICAL GROUP

Fun with Four Curves

Speaker: Stephen Gould
Environmental Protection Agency
<gould.stephen@epamail.epa.gov>

A look at some everyday applications of several classical curves of mathematics, including the cycloid and the catenary. A Power Point presentation with animations — and at least a half-dozen demonstrations that teachers can perform in the classroom — will make these curves personal friends of yours!

Date: **Friday, March 17, 2006**
Times: Social and Dinner 5:45 PM
Place: Caffe Pane e Cioccolato
10 Waverly Place at Mercer Street
(south-west corner)
New York, NY
(You eat, you pay cash only, no credit cards.)
Times: Meeting 7:15 PM
Place: New York University
Silver Center Room 207
32 Waverly Place (south-east corner Washington Sq. East)
New York, NY

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.

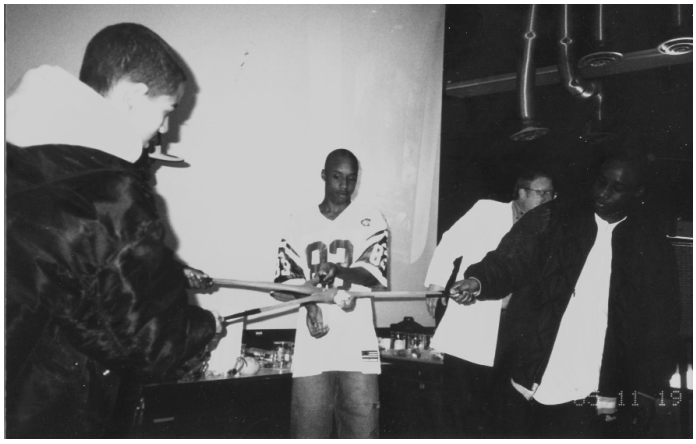
Note: Street parking is free after 6:00 PM. For those who prefer indoor attended parking, it is available at the Melro/Romar Garages. The entrance is on the west side of Broadway just south of 8th Street, directly across from Astor Place. It is a short, easy walk from the garage to the restaurant or meeting room.

SCENES FROM WESTCHESTER CHEMICAL SOCIETY AND HIGH SCHOOL TEACHERS TOPICAL GROUP MEETINGS

(continued on page 18)

David Katz, who did three "Joy of Toys" presentations for the High School Teachers Topical Group and the Westchester Chemical Society for National Chemistry Week, working with Mr. Stretch.

Dr. Mary Cowman of Polytechnic University received an ACS certificate from Jean Delfiner (r) and Joan Laredo-Liddell (l) for her presentation to the members of the Westchester Chemical Society. Her topic was "Applications of Atomic Force Microscopy to Macromolecular Structure Analysis."



Step students from SUNY-Purchase program enjoyed David Katz's presentation and volunteered to test Mr. Stretch.

Lew Matchick, Jean Delfiner, Yuri Gorokovich (presenter), Joan Laredo-Liddell and Rudolph Jones at the High School Teachers Topical Group presentation: "The Coal Fires Keep Burning."

Abby Kurnit and Joan Laredo-Liddell kept the NCW theme, "The Joy of Toys," for the January 2006 10th Annual Math, Science and Technology Conference at SUNY-Purchase.

LONG ISLAND SUBSECTION — TENTH ANNUAL FRANCES S. STERRETT EMVIRONMENTAL CHEMISTRY SYMPOSIUM

NPS Pollution — What's in Your Sump?

Speakers include: Kimberly Rancourt
Long Island South Shore Estuary Reserve Office

John T. Tanacredi, Ph.D.
Dowling College

Robert Turner, Ph.D.
Long Island University

Bruce Brownawell, Ph.D.
Stony Brook University

The annual Frances S. Sterrett Symposium is dedicated to presenting the public with up-to-date, factual scientific information on environmental topics. Email questions to Dr. Barbara Hillery at **hilleryb@oldwestbury.edu**.

Date: **Thursday, May 25, 2006**
Place: Hofstra University
Hempstead, NY

Plan now to attend! And watch for updates at **http://www.newyorkacs.org**.

Call for Nominations

THE EDWARD J. MERRILL AWARD — NORTH JERSEY SECTION OF THE AMERICAN CHEMICAL SOCIETY — EDUCATION COMMITTEE

The Merrill Award recognizes outstanding high school chemistry teachers from the Section for excellence in high school teaching. The award consists of $500.00 presented to the recipient plus a $500.00 grant presented to the chemistry program of the recipient for purchase of equipment and/or supplies for their classroom.

Nominations may be made by any of three methods. Self nomination, nomination of a colleague or nomination of any deserving chemistry teacher by someone outside the school such as a parent, former student or other individual. Note: current students MAY NOT participate in the nomination of a teacher. Further details and forms are available at **njacs.org** under the Education Committee or by writing to the committee at 445 Wyoming Avenue, Millburn, NJ 07041 or by request at **njmoxie1@worldnet.att.net**.

Nominations are accepted throughout the year. The award is presented in May.

George R. Gross
445 Wyoming Avenue
Millburn, NJ 07041-2131
Phone/Fax: 973-379-1566

Call for Papers

54th ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM

Sponsored by: The New York Chemistry Students' Association of the American Chemical Society's New York Section.

Ionic Liquids: Salts for the Earth

Speaker: James F. Wishart
Brookhaven National Laboratories

Date: **Saturday, April 29, 2006**
Place: St. John's University
Queens, NY

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 minutes each in small groups), followed by a luncheon.

To:

1. Submit an abstract on-line
2. Print a flyer for posting - Print "Call For Papers" frame
3. Obtain directions to St. John's University

Go To: **http://newyorkacs.org/grp_students.html**

If you have any questions please contact: JamieLee Rizzo, Co-chair, Student Affiliate Committee, **jrizzo@pace.edu**

Alison Hyslop, Co-chair, Student Affiliate Committee, **hyslopa@stjohns.edu**

Sharon Lall-Ranmarine, Co-chair, Student Affiliate Committee, **SLallramnarine@qcc.cuny.edu**

Others

NEW JERSEY INSTITUTE OF TECHNOLOGY — DEPARTMENT OF CHEMISTRY AND ENVIRONMENTAL SCIENCE

Seminar Series - Spring 2006

A New Watershed Management Approach: Water Quality Trading

Speaker: Dr. Chris Obropta
Rutgers University
Department of
Environmental Science

Date: Wednesday, March 1, 2006
Times: 11:30 AM - 1:00 PM
Place: Tiernan Hall Rm. 373

Seminar Series Coordinator:
Dr. Zeyuan Qiu, 973-596-5357
Zeyuan.qiu@njit.edu

LABORATORY ROBOTICS INTEREST GROUP

Annual New Technologies Meeting

Students from Montclair State, NJIT, Princeton, and William Paterson University will be participating in the student poster session. The deadline for poster registration is March 16. To enter a poster call Kevin Olsen at 973-655-4076.

Presentations

Prof. Robert Austin
Princeton University
Recent Research in Microfluidics Mentoring in the Sciences.

Intellectual Property and Patent Law,

What Every Scientist Ought to Know.

Date: Thursday, March 23, 2006
Time: Social period, student poster session, and vendor exhibits 3:00PM
Presentations begin at 7:00 PM
Place: Montclair State University
Student Center Ballrooms

Montclair State University is located on the Montclair Boonton Line of New Jersey Transit's passenger rail system. The link to New Jersey Transit is:
http://www.njtransit.com/

Shuttle buses run from the railroad station to the Student Center every 15 minutes.

Parking: From Valley Road in Clifton take Normal Avenue to the main campus entrance. After the entrance road curves to the left, the entrance to the campus parking garage will be on the right.

For more information or to pre register for this meeting, please visit:
http://lab-robotics.org/

★

MARM 2006 SPOTLIGHT

MARM SPOTLIGHT

A Retrospective View of Drug Discovery

The 2006 ACS Middle Atlantic Regional Meeting (MARM) is honored to have Dr. Paul Anderson, the 2006 Priestly Medalist and 1997 president of the ACS, presenting a plenary lecture. Dr. Anderson is a distinguished chemist, with nearly 40 years in the pharmaceutical industry, contributing to the discovery of numerous pharmaceutically important compounds, including the HIV drugs Crixivan and Sustiva, the cholesterol lowering drug Zocor, and glaucoma treatment Trusopt. Along with being a leader at Merck, Dupont Pharmaceuticals, and Bristol-Myers Squibb, he has also played a role on scientific advisory boards at smaller pharmaceutical companies, such as Acadia and Achillion. His achievements and service to chemistry have been additionally recognized with many honors and awards; the 2003 National Academy of Sciences Award for Chemistry in Service to Society, the 2002 Perkin Medal, and the 1995 E.B. Hershberg Award to name a few.

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