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Dr. Ulf-H. Dolling
2005 North Jersey Section's
Lifetime Achievement Awardee
(See page 5)

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Biochemical Topical Group
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Chem Tag
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Sunday-Wednesday, May 22-25, 2005
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Monday, May 23, 2005
New Jersey Group of Small Chemical
Businesses
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Deadline for items to be included in the
September 2005 issue of *The Indicator* is
July 15, 2005.

ULF-H. DOLLING RECEIVES THE NORTH JERSEY ACS SECTION LIFETIME ACHIEVEMENT AWARD

Sponsored by the Novartis Pharmaceutical Company

Dr. Ulf-H. Dolling of the Process Research Department of the Merck Research Laboratories has compiled an outstanding record of ground-breaking scientific achievements during his career at Merck, and much of his work has been recognized internationally for its creativity and excellence. After completing his undergraduate education with the Vordiplom from the University of Hamburg, Germany, in 1967, Dr. Dolling pursued his PhD in organic chemistry with Prof. Robert Moss at Rutgers University. His postdoctoral research with Prof. Gerhard Closs at the University of Chicago, widened his horizon employing CIDNP NMR for detailed mechanistic studies. In 1973 he joined the Merck Research Labs as a Senior Research Chemist in the Process Research Group. He is currently Executive Director and is responsible for a group of more than fifty chemists in the United States and England.

Dr. Dolling had rigorous training in physical organic chemistry during his doctoral and post doctoral studies, and his meticulous attention to scientific detail has been evident throughout his career. His first MRL programs represent a scientific benchmark for outstanding accomplishment. He designed the first practical racemic synthesis of 3-fluoro-D-alanine-2-d, an antibacterial candidate that Merck was developing at the time via a novel reductive amination of lithium fluoropyruvate with sodium borodeuteride in conc. ammonium hydroxide. The kinetics of the pyruvate equilibration from amination to gem-diamine and subsequent reduction was studied via ¹H- and ¹³C-NMR in the presence of ¹⁹F and ¹⁵N (certainly one of the most complex array of single spin systems at the time). Of course, it was a racemic process, and Dr. Dolling developed a laboratory resolution via preferential crystallization in a continuous, fluidized bed to prepare the D-isomer as its benzenesulfonate salt. Although this type of resolution was known in physical chemistry texts and had been applied to the methyl dopa manufacturing process, Dr. Dolling was the first to apply it on a preparative multi kg laboratory scale.

Thereafter, Dr. Dolling conceived of and demonstrated the first-ever practical chiral, catalytic phase transfer alkylation (94% e.e. at 100% yield) and demonstrated the process on pilot plant scale. In a follow up Dr. Dolling and his group developed a novel variant of this chemistry, wherein 1,3-dichloro-2-butene was used to achieve an enantioselective Robinson annulation via alkylation. In a unique efficiency enhancement for this industrial process he designed a novel dual catalysis in which an achiral co-catalyst derived from poly(ethylene glycol) carries out the phase transfer part of the reaction while the high affinity of the chiral catalyst for the substrate forces the chiral alkylation exclusively through the substrate-chiral catalyst ion pair. In addition to JACS, JOC, Angewandte Chemie, and Catalysis of Organic Reaction publications, this work was highlighted in C&E News at the time. This ground-breaking achievement set the stage for all of the chiral phase transfer work that has followed in the past twenty years, including that of O'Donnell, Corey and Maruoka. While the others have developed newer catalysts and new applications, Dr. Dolling's basic principal still obtains – the

remarkable e.e.'s in these processes are controlled by the nature of the catalyst-substrate complexes and their subsequent reactions. Not only has this work been recognized as an outstanding achievement by the world-wide chemical community, but it is still regularly taught in advanced undergraduate and graduate courses throughout the world. During the 1980's Dr. Dolling's work clearly put him at the forefront of the enantioselective research.

Dr. Dolling continued his research successes with the development of a novel double-bond introduction method employing DDQ for the finasteride manufacturing process. In this variation amides and ketones are converted to their respective silylimidates and silyl enol ethers. These react at room temperature in an SET process with electron deficient quinones to form substrate-quinone adducts, which undergo a thermal electrocyclic reaction to establish the desired double bond. Thus, Dr. Dolling was able to demonstrate a novel mechanism for oxidation via quinones that had not been anticipated by the chemical community. Not only was this chemistry worthy of a JACS publication, but it still forms the basis of the finasteride manufacturing process, and has been used over the years to produce thousands of kilograms of this drug product.

At this point in Dr. Dolling's career he began assuming larger responsibilities. Yet, he has steadfastly maintained a superb record of scientific accomplishment and their practical applications in all of his programs. His group's work on the MRSA carapenems represents some of the very best and most complex applications of metal-mediated couplings to practical β -lactam syntheses. In the realm of drug processes, those for the carapenems remain the most challenging and complex. Most remarkable in his design of the Invanz manufacturing process, is that the observation that an intermediate was forming a CO₂ adduct was not discarded as a nuisance, but captured as a novel way of stabilizing the system throughout the processing and allowing the desired chemistry to proceed forward. The extreme attention to detail and capitalizing on minute observations as reflected in the Invanz process, has proven to be a hallmark of Dr. Dolling's work. In addition his group has had numerous achievements in the field of asymmetric synthesis and catalysis ranging from new mechanistic understanding on the Itsuno-Corey OAB reduction system to a new method for the enantioselective synthesis of 2-aryloxy acids employing lactamide derived esters and his group's work in the diastereoselective double ring closing metathesis reactions in the enantioselective synthesis of NK-1 receptor antagonists.

Over the years Dr. Dolling has compiled an excellent record of publications and patents. He is a sought-after speaker, whose lectures are those of a dedicated teacher. Within the Merck Process Group he has always been a scientific leader and teacher, who has repeatedly demonstrated his remarkable ability to take small and seemingly unimportant observations and turn them into remarkable science and practical processes. The achievements that he has made during the course of his MRL career render him a most deserving recipient of the Lifetime Scientific Achievement Award of the North Jersey Section of the ACS.

Dr. Ralph P. Volante

Editor's Note: Award will be presented at the MARM 2005 meeting.

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37th American Chemical Society Middle Atlantic Regional Meeting

The 37th Middle Atlantic Regional Meeting (MARM 2005), hosted by the North Jersey Section and Rutgers University Department of Chemistry and Chemical Biology will be held at Rutgers University, Busch Campus, Piscataway, NJ, Sunday through Wednesday, May 22-25, 2005. The theme of the meeting is *Chemistry at the Crossroads of Science*.

Science Education and Careers Day

Opening day, Sunday, May 22, is a special day planned for high school students and their teachers, as well as for academic and industrial scientists from all disciplines who will help celebrate the 100th anniversary of the New Jersey Science Teachers Association (NJSTA). This year MARM and the NJSTA are meeting concurrently, so science teachers will have an opportunity to take advantage of programming from both meetings. High school student posters and projects will be presented by Chemagination participants, Project SEED Students, Intel Project awards winners, state Academy Of Science participants, and FIRST Robotics teams. The program features a very strong education component, with symposia for high school and college educators throughout the week. The MARM Regional High School Teacher of the Year Award will also be presented.

Throughout the day the IMAX video *Volcanoes of the Deep* will be shown, with commentary from Rich Lutz, science advisor for the film and one who has personally visited the deep-sea vents upon which the film is based. David Lee will present a Chemistry Wizard Show with demonstrations from the magical world of chemistry, while Mark Croft and Dave Maiullo will entertain with a Spectacular Physics Show, an event featuring outstanding demonstrations of physical (and some chemical) principles. The Math Science Learning Center, under the direction of Kathy Scott, has numerous hands-on demonstrations and activities planned for all attendees and will be open all day.

Symposia for students, teachers, parents, and scientists will cover exciting developments in biology, chemistry, material science, engineering, pharmaceuticals, biotechnology, forensics, and public health and safety. Additional sessions on mentoring, career development, an educational exposition, and a college fair will be included, along with special tours of the Wright-Rieman chemistry laboratories, panel discussions on college life from the perspective of science students, and a presentation on *So You Want to be a Doctor*.

Symposia

MARM 2005 will present more than 70 invited technical sessions organized by and featuring experts from many chemical disciplines. Some of the many highlights include: A keynote talk by Dieter Seebach (ETH) on β and γ Peptides: Syntheses, Structures, and Biomedical Potential. A symposium organized by S. Knapp on Advances in Organic Synthesis will include presentations by Lawrence Williams, Gary Molander, Marco Ciufolini, and Eric Sorensen. Experts John Hartwig, Xumu Zhang, Dalí Sames, and Pat Walsh will discuss Organometallic-Based Catalysis. Eric Jacobsen and James Leighton will join industry experts Michael Palucki and Ramesh Patel in a cutting-edged session on Enantioselective Reactions and Syntheses.

A strong medicinal chemistry program that should be of particular interest to pharmaceutical scientists is built around drugs, targeting Kinases, Ion Channels, Proteinases, and GPCR. Pharmaceutical Profiling with Roy Vaz (Aventis) and Ken Korzekwa (Merck) will appeal to analytical scientists, as will ADME Toxicology, Analytical Chemistry Frontiers, Biomarkers, and numerous individual technologies such as In-Line Analytics, LC-MS, and Enabling Technologies. The Divisions of Analytical Chemistry and Chemical Toxicology are sponsoring symposia on Transporters, Metabolizing Enzymes, Pharmacokinetics, Biotransformations, Toxiokinetics and Toxicological Studies.

Bench to Pilot Plant will feature Mauricio Futran (BMS), Amit Banerjee, Robert Waltermire (BMS) and Yogesh Sanghvi (Rasayan). This symposium has become an institution over the last six years at both local and national meetings. Aventis' signature chemistry symposium, *Visions in Chemistry* features Steven Ley (Cambridge), Victor Sniekus, David Triggler, and Scott Denmark. Hot topics include Functional Proteomics and Cell Signal organized by T. Neubert, and DNA Gadgets with Wilma Olson.

Two landmark events will take place at this year's MARM: 1) The Cope Scholar Award Symposium honoring Professor Gary Posner of Johns Hopkins University marks the first time this national award of the Organic Chemistry Division will be presented at a Regional Meeting. 2) An ACS National Historic Chemical Landmark Award will be presented along with a technical symposium recognizing the work carried out by Selman Waksman's research group at Rutgers. Additionally, two ACS Regional Innovation Award winners will present their work.

The American Institute of Chemical Engineers (AIChE) is contributing several workshops, and the Royal Society of Chemistry is holding their quarterly meeting at MARM. The American Association of Pharmaceutical Sciences (AAPS) is a meeting sponsor bringing programming from the school of pharmacy and pharmaceutical scientists. Programs on Small Business and Patent and Legal Issues are planned, as well.

The Director of the ACS Green Chemistry Institute, Paul Anastas, will discuss green chemistry issues with several well-established figures in the synthetic organic community, including Peter Wipf. Talks will focus on second generation Gleevec, a new carbapenem antibiotic and an HIV treatment along with new technologies and their applications.

North Jersey increasingly is involved in materials and nanoscience. Related symposia will include Polymeric Biomaterials, Catalytic Routes to Novel Biomaterials, Tissue Engineering and Cell-Material Interactions, Inorganic and Organic Polymers, Surface and Interfaces Science, Solid State and Materials Chemistry and Nanoscience and Technology. Physical Chemistry will be showcased in three symposia: Spectroscopy of Biomolecules, Interfaces & Materials; Gas-Phase Thermochemistry; and Electronic Structure in Chemistry.

Undergraduate Poster Session

MARM's undergraduate poster session Monday, May 23rd, provides an exciting opportunity for students to present their research and to network with potential mentors and employers. Students will vie for the Jean Durana Award for best overall poster, the Sigma-Aldrich Award for best poster in organic chemistry, and the CEM Microwave Chemistry Award. The undergraduate Awards presentation and eminent scientists lecture will be followed by a special networking reception for the student presenters. The Chromatography Forum of Delaware Valley Student Award symposium will feature eight of the best separations papers.

Graduate Student Poster Session and Related Programming

Several events are planned specifically for graduate students. On Tuesday, May 24th, The New York and North Jersey Sections of the ACS will co-host the graduate student poster session, with primary sponsorship from the Camille and Henry Dreyfus Foundation. Four winners will receive a \$250 prize and an invitation from the New York section to its annual Nichols Symposium and dinner in April 2006 for the best posters as judged by a panel of young chemists/recent graduates employed in industry. Poster sessions will be followed by a complimentary lunch for the participants. That afternoon they are invited to a panel discussion by three pharmaceutical industry leaders on Making Plans for a Career in the Pharmaceutical Industry. The panel will focus on employment opportunities, especially for new doctoral graduates, and what it is like to work in the pharmaceutical industry. See www.marmacs.org for more information and details on how to submit a poster.

Symposia for High School and Undergraduate Educators

Several symposia specifically focused on topics of interest to Undergraduate and High School educators will be presented Monday, Tuesday, and Wednesday. A symposium about the general chemistry laboratory and its future will be held on Monday afternoon. There are a number of symposia on a variety of subjects scheduled for Tuesday. In the morning, ways of enhancing the laboratory experience will be discussed. In the afternoon several symposia will be presented, at one of them John Moore, editor of JCE, will show ways that JCE can be used to enhance the curriculum. Other symposia will cover AP Chemistry, Computer Simulations, and PowerPoint for High School Educators. On Wednesday morning ways for incorporating Forensic Chemistry into the curriculum of Community and Four Year Colleges will be presented. The concluding symposium in the afternoon will be on Process Oriented Guided Inquiry Learning (POGIL).

Workshops

Throughout the meeting there will be workshops of interest to new graduates on diverse employment opportunity subjects such as: Exploring Routes to becoming a High School Teacher, Curriculum Vita Preparation, Interviewing Techniques for Experienced Chemists/Chemical Engineers, Becoming a Teacher at a College/Community College, Internships, Managing an Effective Job Search, Career Enhancements for Chemical Technicians, Getting Research Grants, Job Transitioning to Alternative Careers, Resume Preparation, and, of special interest to graduate students, a panel discussion on Landing Your First Job at a Pharmaceutical Industry. This two-day package of workshops and poster sessions is a powerful, useful collection of opportunities for graduate students that rarely, if ever, occur in one place. Please register for the workshops of your choice on the advance registration form found on the MARM website at www.marmacs.org.

Awards and Related Presentations

Several awards and recognitions to very worthy individuals and groups will be presented during MARM. An individual or institution will be given the Stanley C. Israel Regional Award for Advancing Diversity in Chemical Sciences. The ACS Office of Industry Programs will present the Regional Industrial Innovation Award, given to the person and/or team in industry that has invented something that has improved the lives of the citizens in the region. The E. Emmet Reid Award will be presented to a college chemistry teacher, and there will be a Regional High School Teacher Award. The North Jersey Section of the ACS will present a Lifetime Achievement Award for service to a deserving chemist, chemical researcher, or chemical engineer.

National Historic Chemical Landmark

On Tuesday, May 24th at 2 PM the discovery of the actinomycete antibiotics (especially streptomycin by Albert Schatz and Selman Waksman) will be designated a National Historic Chemical Landmark in a ceremony at Martin Hall on the campus of Rutgers University. The thread-like soil bacteria, the actinomycetes, became soil microbiology's gift to medicine. The actinomycetes were recognized as a pharmaceutical treasure chest: streptomycin as a cure for tuberculosis, immunosuppressants such as FK 506, anti-infectives such as avermectin (a cure for river blindness), and anti-cancer agents, including Rutgers' first antibiotic, actinomycin. Waksman and his colleagues made a major conceptual leap in determining that soil bacteria were a medical resource, and they developed a sophisticated screening process for investigating soil microbes. The Landmark celebration illustrates how the actinomycetes dramatically

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37th ACS MARM

(continued from page 7)

changed the course of medicine, the pharmaceutical industry, and fermentation engineering. An Actinomycete Antibiotic Symposium Wednesday morning, May 25, will address the historical perspectives in the search for new antibiotics.

At the Awards Dinner Wednesday night, Jeannette Brown, North Jersey Section, Retired, will be recognized as the recipient of the ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences. She will receive the award at the fall meeting of the ACS in Washington, DC. Ed Chandross, Retired, Bell Labs, Lucent Technologies, will be recognized for winning the ACS Award in Industrial Chemistry. MARM also will recognize its ACS 50-year members and the student winner of the Chemistry Olympiad. There will also be an Industrial Innovation Plenary Session and Reception on Wednesday afternoon. Topical and affiliate groups will also be presenting awards or recognizing their members. Seating at this event is limited, so purchase your ticket on the advance registration form.

Chemical Exposition

A vendor exhibit featuring local and national scientific companies will be held Monday and Tuesday, May 23-24, from 11 am to 7 pm. The exhibit will be directly adjacent to poster presentations and the complimentary food and beverage services for all attendees. Vendors wishing to participate may contact Jiwen Chen (Schering-Plough, 908-740-4931) or sign up online at www.marmacs.org/vendors.html.

Career Services & Regional Employment Clearinghouse (RECH)

MARM 2005 is pleased to offer an ACS Regional Employment Clearing House for job seekers, one-on-one resume reviews with trained career consultants, and a broad range of career workshops and panel discussions designed to enhance the careers of chemical professionals.

ACS members and national and student affiliates interested in signing-up as job candidates for the Employment Clearing House should contact ACS Career Services at 1-800-227-5558 x6209 to enroll. Employers interested in recruiting on-site or posting positions in absentia may obtain registration and fee information for the ACS Career Services at 1-800-227-5558 x6209. **The deadline for signing-up for the Employment Clearing House is May 6.**

Members and student affiliates wishing to have their resumes reviewed by a career consultant should register by May 6 by going to www.marmacs.org. Those who do will be given preference over attendees who register on site. Individuals should bring copies of their resumes. Reviews will be done Sunday through Tuesday.

On Sunday through Tuesday, the ACS Office of Career Services will host workshops for undergraduate and graduate students, and experienced chemists:

- Resume Preparation
- The Value of Internships for Recent Graduates
- Interviewing Skills
- Curriculum Vita Preparation
- For Experienced Chemists/Chemical Engineers
- Resume Preparation
- Managing an Effective Job Search
- Career Enhancement for Technicians
- Getting Research Grants Funded

There is no charge for these workshops; however, attendees should register on-line at www.marmacs.org.

MARM has scheduled several panel discussions featuring speakers from diverse career pathways in government, patent law, consulting, chemical information, industry, and academia on Monday and Tuesday. Panel members will address the following topics:

- Exploring Routes for Becoming a HS/MS Teacher
- Alternative Careers for Chemists
- Landing Your First Job at a Pharmaceutical Company
- Planning A Career in the Pharmaceutical Industry
- Becoming a Teacher at a College/Community College

Advance registration for these sessions at www.marmacs.org is strongly urged.

Housing

MARM has reserved single and double rooms on campus in McCormick Residence Hall. These rooms are arranged in clusters of three bedroom suites, with a shared living area and common bath. Daily maid service is available. To reserve a dorm room, please submit the reservation form located at <http://marmacs.org/hotels.html>.

Additionally, MARM has arranged for special rates at the Hyatt Regency New Brunswick (732-873-1234) and the Radisson Hotel Piscataway (formerly the Sheraton Four Points Barceló, 732-980-0400). The Hyatt Regency New Brunswick is a short walk from a NJ Transit train station and the Radisson Hotel Piscataway is located just off Rt. 287, a short drive from Rutgers. Please call either directly to make your

reservation. Mention that you are attending the ACS Middle Atlantic Meeting to receive the meeting discount.

Other Special Events

There will be a networking lunch Monday where attendees will have the opportunity to meet many of the speakers and their fellow attendees from academia and industry. On Tuesday at noon there will be a Women Chemists Committee (WCC) luncheon where ACS Past President Elsa Reichmanis will talk on Breakthroughs in Material Chemistry for Advanced Technologies: A Collaborative Endeavor. The luncheon will be followed by a symposium sponsored by the WCC on Nature/Nurture: Women in Academe. On Wednesday at noon, ACS Past President Ronald Breslow will speak on Chemistry: A Glorious Past, and an Even Greater Future at a luncheon celebrating chemists and chemistry. On Monday and Tuesday evenings there will be a "Roving Feast", a buffet dinner near the Chemical Exposition. After dinner on Tuesday Dieter Seebach (ETH) will give his keynote talk. Also on Tuesday evening there will be a panel discussion with ACS past presidents led by ACS Past President Paul Anderson. Reserve your tickets to these events on the advance registration form available on the MARM website.

Meeting Registration

Register online at the MARM website at <http://marmacs.org>, or the ACS regional meetings website at <http://www.chemistry.org/meetings/regional>. Registration forms may also be downloaded from either site. Take advantage of the discounted fees for advance registration and submit your form online, by fax, or mail before the May 2nd deadline.

Onsite registration will be available beginning Sunday morning, May 22, at the Rutgers Busch Campus Center from 8:30 am to 5:30 pm. Registration opens 30 minutes before the first session throughout the meeting, and closes 30 minutes after the start of the last session or event on Monday and Tuesday. Registration ends at 11:00 am on Wednesday.

Additional Information

For more information, visit the meeting web site at <http://marmacs.org>, or contact the General Co-Chairs, Alan Cooper at 908-740-3106 or alan.cooper@spcorp.com, or Bill Suits at 908-234-9240 or illsuits@earthlink.net. The program Co-Chairs are Les McQuire, 862-778-0307 or leslie.mcquire@pharma.novartis.com and Joe Potenza at 732-445-2115 or jpotenza@rutchem.rutgers.edu.

(program continues on page 10)

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Middle Atlantic Regional Meeting Program

Sunday, May 22, 2005 (Science Education & Career Day)

Day-Long Events

Math Science Learning Center
Tours of the Chemistry Research Laboratories
IMAX video, *Volcanoes of the Deep*, commentary by Rich Lutz
How to be a More Effective Chemical Hygiene Officer short course (Russ Phifer, CHAS)

Special Events & Programs (Morning)

Talk on *100 Years of Genetics*
Talk on *From Willow Bark to Polyaspirin: Discovery and Invention*
Talk on *The Seascape Then and Now*
Panel Discussion: *So You Want to be a Doctor*

Workshops

Resume Preparation for Pre-college Students
Resume Preparation for Undergraduates
Public Relations Workshop

Special Events & Programs (Afternoon)

Spectacular Physics Show
Talk on *Counterfeiting: From Banknotes to Diamonds*
Talk on *Antibiotic Discoveries at Rutgers*
Talk on *100 Years of Chemistry*
Talk on *Using Technology to Inspire Students, Teachers, and Mentors*
Career Development Symposium
Forensics Symposium
Chemistry Magic Show
Joseph Priestly (David Blatchley) will perform his original gas discovery experiments
Tech to Great Symposium
Posters & Projects: Project SEED Poster Session, Chemagination, Young Science Achievers, Regional Science Fair, NJ Academy of Sciences, College Fair

Monday, May 23, 2005

11:00 am – 7:00 pm Exposition

Special Events (Morning)

Undergraduate Poster session (Jean Durana Award, Sigma-Aldrich Award)
NRCC Certification Exam

Workshops

Resume Preparation for Experienced Chemists
Interviewing for Experienced Chemists and Chemical Engineers

Special Events (Afternoon)

Networking Lunch
Astrochemistry: *What's New and Exciting in Interstellar and Planetary Chemistry?*
Symposium for Undergraduate Educators: The General Chemistry Laboratory
Undergraduate Reception
Workshops

Resume Preparation for Recent Graduates and Undergraduates
Managing an Effective Job Search
Alternative Careers (panel discussion)
Career Enhancement for Chemical Technicians
Landing Your First Job at a Pharmaceutical Company (panel discussion)
Exploring Routes for Becoming a HS/MS Teacher (panel discussion)
Interviewing for Recent Graduates and Undergraduates

Special Events (Evening)

Roving Feast Buffet Dinner

Symposia (Morning)

Amphiphilic Biomaterials
Bench to Pilot Plant I
Bioinformatics
Biomarkers: Quantification, PK/PD Correlation and Bioanalytical Issues
DNA Gadgets: Making Novel Use of the Physico-chemical Properties of DNA
Drug Transporters
Kinases
Materials Chemistry, Inorganic & Organic Polymers

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Solid State and Materials Chemistry I
Strategies for Growth: Small Company-to-Big Player
Symposium on Spectroscopy of Biomolecules, Interfaces & Materials I

Symposia (Afternoon)

About the General Chemistry Laboratory
Bench to Pilot Plant II
Discovery to Commercialization
Frontiers in Organometallic-Catalyzed Organic Synthesis
GPCR/Virtual Screening
Gene Expression: Transcription
Marine Environment Chemistry
Pharmaceutical Profiling II
P450 and Other Metabolizing Enzymes
Solid State and Materials Chemistry II
Stars and Branched Polymers
Symposium on Spectroscopy of Biomolecules, Interfaces, & Materials II

Tuesday, May 24, 2005

11:00 am – 7:00 pm Exposition

Special Events (Morning)

Graduate Poster Session with complimentary lunch for participants
Symposium: Laboratory Experiences in Undergraduate Curriculum
Undergraduate Research Symposium
Workshops
Preparing a Curriculum Vitae
Resume Preparation for Experienced Chemists
Internships-A Tremendous Learning Experience
Interviewing for Experienced Chemists and Chemical Engineers
AICHe Short Course: Pharmaceutical Engineering Fundamentals, Part I

Special Events (Afternoon)

WCC Lunch with ACS Past President Elsa Reichmanis as guest speaker
WCC Symposium: Nature/Nurture: Women in Academe
Panel Discussion for Graduates: Making Plans for a Career in Pharmaceutical Industry
Symposium: Research Opportunities for Primarily Undergraduate Institutions
2005 Chromatography Forum Student Award Symposium
A.P. Chemistry Symposium
Journal of Chem. Ed.As Resource
Student contests
Workshops
Computer Simulations for HS Education
Managing an Effective Job Search
PowerPoint for High School Education
Becoming a Teacher at a College/Community College
Getting Research Grants
Resume Preparation for Recent Graduates
Interviewing for Recent Graduates
AICHe Short Course: Pharmaceutical Engineering Fundamentals, Part II
National Historic Chemical Landmark Ceremony (Discovery of the Actinomycete Antibiotics)
Panel Discussion with ACS Presidents

Special Events (Evening)

Roving Feast Buffet Dinner
Panel Discussion with ACS Presidents
High School Teacher Affiliate Group Event
Keynote address by Prof. Dieter Seebach: β - and γ Peptides: Syntheses, Structures, and Biomedical Potential

Symposia (Morning)

Electronic Structure in Chemistry
Enabling Technologies in the Analytical Laboratory
Gas-phase Thermochemistry
Green Chemistry I
In-Line Analytics for Reaction Monitoring

(continued on page 12)

Middle Atlantic Regional Meeting Program

(continued from page 11)

Inorganic & Organic Polymers
 Ion Channels
 Laboratory Experiences in the Undergraduate Curriculum
 Molecular Modeling throughout the Drug Discovery Process I
 Nanoparticles and Nanoshells
 Novel Instrumentation and Applications of Mass Spectrometry in ADME Studies
 Pharmacokinetics
 Surface & Interface Science
 Toxicokinetics: Visions in Chemistry I

Symposia (Afternoon)

2005 Chromatography Forum Student Award Symposium
 AP Chemistry Symposium
 Applications of LC-MS in Drug Discovery/Development
 Biotransformation
 Computer Simulations Workshop for HS Education
 Electronic Structure in Chemistry
 Gas-phase Thermochemistry
 Green Chemistry II
 Journal of Chemical Education as a Resource
 Molecular Modeling throughout the Drug Discovery Process II
 PowerPoint Workshop for HS Education
 Proteinase
 Regulatory and Patent Law: The Scientist's Perspective
 Research Funding Opportunities for Primarily Undergraduate Institutions
 Student Contests in Education
 Surface & Interface Science
 Targeted Drug Delivery
 Visions in Chemistry II

Wednesday, May 25, 2005

Special Events (Morning)

ACS District Director's Breakfast hosted by ACS Board Member Madeleine Joulle. Open to all Attendees

Symposium for Undergraduate Educators: Forensic Chemistry Education
 AIChE Short Course: Electrostatic Hazards and the Control of Dust Explosions

Special Events (Afternoon)

Symposium: Process Oriented Guided Inquiry Learning POGIL
 Celebrating Chemistry & Chemists Lunch with guest speaker ACS Past President Ronald Breslow
 AIChE Short Course: Microreactors & Microreaction Systems for Development & Production

Special Events (Evening)

Awards Reception & Banquet

Symposia (Morning)

Advances in Organic Synthesis
 Celebrating Chemistry: National Historic Chemical Landmark Symposium
 Functional Proteomics and Cell Signaling
 Forensic Chemistry Education
 Green Chemistry III
 Nanoscience & Technology
 Surface Modification
 Tissue Engineering and Cell-material Interactions
 Toxicological Studies

Symposia (Afternoon)

Cope Scholar Symposium honoring Gary Posner
 Enantioselective Reactions and Syntheses
 Engineered Biomaterials
 History of the NJ ACS
 Process-Oriented Guided Inquiry Learning (POGIL)
 Polymeric Biomaterials



DEADLINE FOR RECEIPT OF ADVANCE REGISTRATION IS MAY 2, 2005

37th ACS Middle Atlantic Regional Meeting – MARM 05

Rutgers University, Piscataway, NJ

May 22-25, 2005

Hosted by the North Jersey Section and

Rutgers University, Department of Chemistry

<http://marmacs.org/>



Dr. Mr. Ms. Mrs. 1. Academe 2. Industry 3. Government 4. Student 5. Other

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Please contact the Off. of Mtgs and Expo Services at (202) 872-4557 if you require special accessibility accommodations to fully participate.

REGISTRATION FEES	ADVANCE	ONSITE	SPECIAL EVENTS	
<input type="checkbox"/> 01. ACS member	(\$120)	(\$145)	<input type="checkbox"/> SAT, May 21, RSC Reception/Dinner/Talk	\$50
<input type="checkbox"/> 02. Nonmember	(\$145)	(\$175)	<input type="checkbox"/> MON, May 23, Networking Lunch	\$15
<input type="checkbox"/> 03. Undergraduate Students	(\$35)	(\$50)	<input type="checkbox"/> MON, May 23, Roving Feast (5 - 7:30 PM)	No Charge
<input type="checkbox"/> 04. Precollege Teacher	(\$25)	(\$40)	<input type="checkbox"/> TUES, May 24, WCC Luncheon (12 - 1 PM)	\$15
<input type="checkbox"/> 05. Graduate Student	(\$45)	(\$65)	<input type="checkbox"/> TUES, May 24, Roving Feast (5 - 7:30 PM)	No Charge
<input type="checkbox"/> 06. Retired/Emeritus/Unemployed	(\$35)	(\$45)	<input type="checkbox"/> WED, May 25, Chemistry Leadership Breakfast	No Charge
<input type="checkbox"/> 07. Guest	(\$35)	(\$35)	<input type="checkbox"/> WED, May 25, Celebrating Chemistry Luncheon (12-1)	\$15
<input type="checkbox"/> 08. HS Student	(\$10)	(\$15)	<input type="checkbox"/> WED, May 25, Awards Banquet (5 - 8:30 PM)	\$35
<input type="checkbox"/> 09. HS Student Parent	(\$25)	(\$30)		
<input type="checkbox"/> 10. 50 Year ACS Member	(NC)	(NC)		

CAREER WORKSHOPS (No Charge, advance registration required)	CAREER WORKSHOPS CONT'D	AIChE SPONSORED SHORT COURSES (AM = Morning PM = Afternoon)
<input type="checkbox"/> SUN, May 22, Resume Prep. For Pre-College Students (PM)	<input type="checkbox"/> TUES, May 24, Interviewing For Graduates (PM)	<input type="checkbox"/> TUES, May 24, AIChE Pharmaceutical Engrg. Fundamentals Workshop (AM/PM) \$50
<input type="checkbox"/> SUN, May 22, Resume Prep. For Undergraduates (PM)	<input type="checkbox"/> TUES, May 24, Panel - Becoming a Teacher at a Coll/Com Coll (PM)	<input type="checkbox"/> WED, May 25, AIChE Electrostatic Hazards and Control of Dust Exp. (AM) \$25
<input type="checkbox"/> MON, May 23, Resume Prep. For Experienced Chem./Chem. Engr. (PM)	<input type="checkbox"/> TUES, May 24, Getting Research Grants (PM)	<input type="checkbox"/> WED, May 25, AIChE Microreactors & Microreaction Sys for Dev. & Prod. (PM) \$25
<input type="checkbox"/> MON, May 23, Interviewing. For Experienced Chem./Chem. Engr. (PM)		
<input type="checkbox"/> MON, May 23, Interviewing. For Graduates (PM)		
<input type="checkbox"/> MON, May 23, Managing an Effective Job Search (PM)		
<input type="checkbox"/> MON, May 23, Career Enhancement for Chemical Technicians (PM)		
<input type="checkbox"/> MON, May 23, Panel - Expl A/R Rte for High Sch/Mdl Sch Teacher (PM)		
<input type="checkbox"/> MON, May 23, Panel - Landing Your 1 st Job at a Pharm. Co. (PM)		
<input type="checkbox"/> MON, May 23, Panel - Job Transitioning (AM)		
<input type="checkbox"/> TUES, May 24, Curriculum Vita Preparation (AM)		
<input type="checkbox"/> TUES, May 24, Internships - A Tremendous Learning Experience (AM)		

PLEASE READ THE FOLLOWING IMPORTANT INFORMATION

- ALL REGISTRATIONS MUST BE PREPAID BY EITHER CHECK OR CREDIT CARD IN ORDER TO BE PROCESSED
- MAIL OR FAX COMPLETED FORM TO AMERICAN CHEMICAL SOCIETY, OFFICE OF SOCIETY SERVICES, 1155-16TH STREET, N.W., WASHINGTON, DC 20036. PHONE: (800) 227-5558; FAX: (202) 872-8067
- PLEASE SUBMIT A SEPARATE REGISTRATION FORM FOR EACH REGISTRANT.
- REQUEST FOR REFUND MUST BE SUBMITTED IN WRITING TO AMERICAN CHEMICAL SOCIETY, OFFICE OF MEETINGS AND EXPOSITION SERVICES, 1155-16TH STREET, N.W., WASHINGTON, DC 20036
- FULL REFUND THROUGH MAY 2, FROM MAY 2 THROUGH May 18, 2005, A \$20 PROCESSING FEE WILL BE CHARGED. NO REFUNDS AFTER MAY 18, 2005.

TOTAL FEES:		Paid by: <input type="checkbox"/> American Express <input type="checkbox"/> MasterCard <input type="checkbox"/> Visa <input type="checkbox"/> Check (Payable to ACS)	
Registration	\$ _____	<input type="text"/>	Exp Date <input type="text"/>
Events	\$ _____	Cardholder Name (please print):	
Total Amount Enclosed	\$ _____	Signature:	

North Jersey Meetings

<http://www.njacs.org>

EXECUTIVE COMMITTEE AND SECTION MEETING

There will be no Executive Committee Meeting in May.

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 searching.



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ANALYSIS FOR THE CHEMICAL ELEMENTS

The next meeting for the Careers In Transition Group will be held **Thursday, May 5, 2005**, 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.

This will be the last time you will be able to get advice on your resume prior to the Regional Clearing House that will be part of MARM, May 23-25, 2005 at Rutgers University.

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



TEACHER AFFILIATES

Executive Committee Meeting

Date: Monday, May 9, 2005

Time: 4:30 PM

Place: Chatham High School
255 Lafayette Avenue
Chatham, NJ

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



ChemTAG MEETING

Date: Thursday, May 12, 2005

Time: 4:00 PM

Place: North Brunswick High School
Raider Road
North Brunswick, NJ

Contact: Bobbi Gorman at
rosellerams@yahoo.com

Directions to high school:
<http://www.nbtschools.org/hsinfo.htm>



CHEM CENTRAL MEETING

Date: Wednesday, May 18, 2005

Time: 4:00 PM

Place: Howell High School
Yellowbrook-Squankum Rd.
Farmingdale, NJ

Contact: roseannmcc@comcast.net

NORTH JERSEY ACS-TEACHER AFFILIATES

Annual Mole-Day Poster Contest — Theme: Moles-Go-Round

Attention All New Jersey High School Chemistry Teachers!

First place winner receives \$100 and \$100 Certificate for supplies from Flinn Scientific

Contact Patti Duncan at
pduncan@hpregonal.org for guidelines

SCENES FROM TEACHER AFFILIATES MEETINGS



Chem Essentials Workshop



Karen Posluszny and Maricar Korff of East Brunswick HS organized several make-and-take sessions for the February ChemTAG meeting.



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NEW JERSEY GROUP OF SMALL CHEMICAL BUSINESSES

Discovery to Commercialization

Part of the ACS MidAtlantic Regional Meeting "Chemistry at the Crossroads of Science"

Date: Monday, May 23, 2005

Times: Networking Luncheon 12:00 Noon
Business of Chemistry Issues

Place: Rutgers University
Student Center
Busch Campus
Piscataway, NJ

1:30 – 5 PM

"Discovery to Commercialization"
Forum
Building and Room TBA

1:30 PM

Molding an Innovation to Market Needs: A Critical Key to a Start-up's Success!
Dr. Joseph D'Antuono
ROW2 Technologies, Inc.

2:15 PM

From a Eureka Moment to a Clinical Candidate: a Case Study of a Polymer Drug™
Dr. Karen J. Giroux
Polymerix Corp.

3:30 PM

Hydro Globe – Commercializing an Innovative Water Purification Technology
John Schroeder
VP of Operations, Graver Technologies,
Hydro Globe Division

4:15 PM

Commercialization of Nanocomposite Barrier Coatings
Dr. Harris A. Goldberg
InMat@ Inc.

Q & A Moderator:

Judith A. Sheft
Assistant Vice President Technology Development, New Jersey Institute of Technology

For program details, registration information, map and directions to the Rutgers Campus, see www.marmacs.org

CHEM ESSENTIALS

Are you A NEW Chemistry Teacher? A Teacher NEW to Chemistry? A Chemistry Teacher Who Is Looking for Something NEW?

Then CHEM ESSENTIALS Is for YOU!

Friday evening workshops will include content, activities, labs, and alternate assessment centered around a different topic each quarter.

The 2005-06 Workshops include:

Scientific Mass (August 26)

Periodic Table (November 11)

Reactions (February 10, 2006)

Equilibrium Kinetics (April 21, 2006).

Place: Somerville High School
Cost: \$20 for NJACS-TA members;
\$30 for non-members

Professional Development Certificates

Contact Patti Duncan at
PDuncan@hpregional.org or

Go to <http://www.njacs.org/teacher.html> for more details and a registration form.

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TEACHER AFFILIATES

Summer Chemistry Workshop

The North Jersey Section of the American Chemical Society, Teacher Affiliates Group, is hosting a week long workshop for chemistry teachers. It is open all chemistry teachers who are interested.

The workshop will run from **August 15 through 19**, and be held on the campus of Fairleigh Dickinson University in Madison. The cost is \$300 per person and includes breakfast, lunch, snacks, all materials and supplies including a notebook and CD of the week's activities.

The lead presenters are Brenda Rosenau of Somerville H.S. and Patricia Duncan of High Point Regional H.S. and is being coordinated by George Gross, retired, Union H.S.

The New Generation: A Year of Chemical Tools for Chemistry Teachers will cover all major topics in the chemistry curriculum and will include five, eight hour days of demonstrations, experiments, make and takes and technology for chemistry. It is designed to give you new tools to liven up your chemistry classes.

Housing is available nearby but is not included. Participants must arrange their own housing.

The presenters are all experienced presenters having presented at local, state, national and international meetings of chemistry

teachers. All three have been involved with Flinn Scientific programs during the summers or at national conventions as well.

Dates: August 15-19, 2005

Place: Fairleigh Dickinson University
Madison, NJ

Cost: \$300 per person (includes breakfast, lunch, snacks, all materials and supplies including a notebook and CD of the week's activities)

For additional information contact bkrosenau@aol.com or 908-218-9404. To register, send a check in the amount of \$300.00, payable to ACS-TA, and mail it to George R. Gross, 445 Wyoming Avenue, Millburn, NJ 07041.



NEW JERSEY CHEMISTRY OLYMPICS-2005

A Competition for High School Students

Date: Wednesday, May 4, 2005

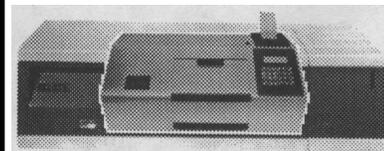
Place: NJIT
Newark, NJ

There are three categories of events: Research, General, Laboratory. Turn your students on to chemistry. Go to <http://web.njit.edu/chemistryolympics/> for more details and for information about registering a team.



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Puzzle "Not Too Technical"

by Arthur Bradley

1	2	3	4	5		6	7	8	9	10	11
12						13		14			
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45				46				47			48
49								50			
51							52				

ACROSS

- Chromatography pioneer
- Chromatography essential
- A Night at the _____
- _____ nickel (catalyst)
- Red breast
- Primitive computer monster
- Elements 7 and 4
- Pastry
- Canine
- The Gilded _____
- Schemes
- Republican power base
- Hat or French play
- Make less tight
- Boil and condense
- Folded again
- Movies at home
- A failed amendment
- Like bath walls
- We _____ family
- Packed house

DOWN

- Container
- Jolson, to his mammy
- Curved sword
- Medical plan
- Precious violin
- Residues
- Dry soil shrub
- Columbus passed them
- High _____
- Primitive marine animal
- Like a duck's foot
- A Great Lake
- What we do to hides
- Mine product
- Photography inventor
- Bane of management
- Quantity challenged
- World capital
- Continent
- Moldable

ACROSS

- Animate
- Burning
- Photograph
- A state of matter
- Licorice plant
- Keats specialty
- Elderly
- Inferior substitute
- Streissand
- Statue island
- Methyl _____
- Melted rock
- Pertaining to the mouth
- A kind of dynamics
- Sends retirement checks
- Stamp _____
- Carpenter's tool
- Silly or stubborn person

Solution on page 25.

New York Meetings

www.newyorkacs.org

WESTCHESTER CHEMICAL SOCIETY

Distinguished Scientist Award

Recipient: Dr. Gary M. Williams, MD
Professor of Pathology
Director of Environmental
Pathology and Toxicology

and

Student Achievement Awards for Excellence
in Chemistry - High School and College

"Chemical Design for Improved Safety of Medicines"

In the development of medicines, new chemical entities are designed and selected primarily on anticipated therapeutic effects. Frequently, however, issues arise in the plethora of preclinical safety assessment studies that precede the clinical studies of safety and efficacy. Examples will be presented of chemical structures that convey specific preclinical toxicities and of the application of chemical design to address such safety concerns.

Date: Wednesday, May 4, 2005

Times: Refreshments and Social
5:00 PM

Awards and Presentation 5:45 PM
Dinner - 7:15 PM

Place: New York Medical College
Basic Science Building
Grasslands Road
Valhalla, NY

Costs: \$25.00

Reservations are required for security reasons. Reservations deadline: **April 27, 2005**

Please send check addressed to Westchester Chemical Society to: Joan Laredo-Liddell, 391 Palmer Road, Yonkers, NY 10701-5239.

Information:

phone/fax: 1-914-476-6860

e-mail: JLaredoliddell@aol.com

Please check the Section website for specific directions at the beginning of May. It will be important to know which entrance to the parking lot has the security guard with the names of the attendees.



ANALYTICAL TOPICAL GROUP

Sampling for Hydrophobic Organics in Water and Air: Challenges and Data Usage

Speaker: Lisa Totten

Assistant Professor
Department of Environmental
Sciences and Center for
Environmental Prediction
Rutgers University
New Brunswick, NJ

Measuring hydrophobic organics such as PCBs, PAHs, brominated flame retardants, and polychlorinated dioxins and furans is essential to the development of fate and exposure models, but it is fraught with many difficulties and challenges. Methodology and quality control issues will be discussed.

Date: May 5, 2005

Times: 6:00 PM

Place: The Graduate Center of the City
University of New York
365 Fifth Avenue
New York, NY

The room number will be posted in the Lobby for further information contact Dr RP Nolan (212)817-8248.



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CHEMICAL MARKETING AND ECONOMICS GROUP

Chemical Investments in China: What Works and What Doesn't?

Speaker: Russell Beiter
Partner
Chemical Advisory Partners

Date: Thursday, May 12, 2005

Place: The Chemists' Club
40 West 45th Street
New York, NY

Times: Cocktails 11:30 AM
Luncheon 12 noon
Presentation 1:15 PM

Fees: \$35 discount price for Members who reserve by **Tuesday, May 10, 2005 (12 noon)**. \$50 for Guests and Members (at the door without reservations)

To reserve: Please reserve early to be eligible for discount price. Call Probe Economics at (914) 923-4505, or via e-mail to: cmegroup@yahoo.com. To pay online by credit card (via PayPal), go to the CM&E Website: <http://home.nyc.rr.com/chem-markecon/>



NY-ACS BIOCHEMICAL TOPICAL GROUP — JOINT MEETING WITH THE NYAS BIOCHEMICAL PHARMACOLOGY DISCUSSION GROUP

Allosteric Modulation of G Protein-Coupled Receptors

Organizers: Douglas Macdonald
CHDI, Inc.

and

Michael Wood
Astra Zeneca

Featured Speakers:

Nigel Birdsall
National Institute for Medical Research
London;

Thomas P. Sakmar
The Rockefeller University

Jean-Philippe Pin
Institut de Genomique Fonctionnelle
Montpellier, France;

Stuart Sealfon
Mount Sinai School of Medicine

Kenneth Jacobson
National Institute of Diabetes and
Digestive and Kidney Diseases

Christian C. Felder
Eli Lilly

P. Jeffrey Conn
Vanderbilt University

G protein-coupled receptors (GPCRs) are the single most popular target class for drug discovery in the pharmaceutical industry. The focus on this protein class has yielded a wide range of pharmacotherapeutics. Nonetheless, targeting some GPCRs has proven to be difficult. Using canonical pharmacologic approaches toward certain receptor classes and receptor families with closely conserved ligand-binding domains can engender severe selectivity and pharmacokinetic complexities. Allosteric modulation offers an alternative method to manipulate GPCRs that may liberate drug discovery scientists to consider new chemical strategies. However, allosteric modulation brings new challenges. This symposium will address these challenges by bringing together several experts to present their current thinking around allosteric modulation of GPCRs and will conclude with a lively panel discussion.

Date: Tuesday, May 24, 2005

Time: 9:00 AM – 5:00 P.M.
(All Day Meeting)

Place: The Rockefeller University
(Caspary Auditorium)
1230 York Avenue at 66th Street
New York, New York

Reserve a seat on-line at
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Non-members may attend for a fee of \$20 per event; Student Non-members for \$10.

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LONG ISLAND SUBSECTION

Ninth Annual Frances S. Sterrett Environmental Chemistry Symposium

"Long Island Air Quality – To Breathe or Not To Breathe?"

Speakers to include:

Lucy Zurek
OSHA Region II
"Indoor Air Quality"

Ajay Shah
NYS DEC Region I
"Air Monitoring on LI"

Ed Olmstead
LI Occupational Environmental
Health Center at Stony Brook
"Indoor Environment Quality"

Dr. Marianne Frieri
Nassau University Medical Center
"Air Quality and Health"

Date: Thursday, May 26, 2005

Times: 8:30 AM - 2:00 PM

Place: Hofstra University
Business Development Center
Room 246, California Avenue
Hempstead, NY

Register now!

Fill out and return the form below. Or register online at <http://www.newyorkacs.org>.

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.

REGISTRATION FORM:

PLEASE COPY AND SEND TO

DR. NEIL JESPERSEN
DEPT. OF CHEMISTRY
ST. JOHN'S UNIVERSITY
8000 UTOPIA PKWY
JAMAICA, NY 11439
(516) 883-7510
e-mail: njesper1@optonline.net

REGISTRATIONS RECEIVED BY MAY 20 INCLUDE LUNCHEON

NAME _____

PHONE _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PLEASE REGISTER _____ PEOPLE FOR THE FRANCES STERRETT ENVIRONMENTAL CHEMISTRY SYMPOSIUM ON "LONG ISLAND AIR QUALITY – TO BREATHE OR NOT TO BREATHE?" PLEASE LIST OTHER NAMES, ADDRESSES, AND PHONE NUMBERS ON A SEPARATE PAGE.

ENCLOSED IS \$ _____ FOR THE RESERVED SPACES INDICATED BELOW.

____ ACS Members @ \$25.00
____ Non-ACS Members @ \$35.00
____ Students/Retired @ \$17.00

HIGH SCHOOL TEACHERS TOPICAL GROUP



Joan Laredo-Liddell, co-chair HSTTG; Doreen Bader, presenter; Najla Hallak, President of The Chemistry Teachers' Club of New York, Jean Delfiner, co-chair HSTTG. Ms. Bader, Research Scientist/ Environmental Education for the New York City Department of Environmental Protection, presented "Science Materials for Science Teachers."

NEW YORK CHEMISTRY STUDENTS' ASSOCIATION

53rd Annual Undergraduate Research Symposium

"Scale Your Enthusiasm"

Keynote Speaker: Dr. Stephen O'Brien
Department of Applied
Physics and Applied
Mathematics
Columbia University

The New York Chemistry Students' Association of the ACS, NY-Section will hold its 53rd Annual Undergraduate Research Symposium at Stony Brook University, Stony Brook, NY, on **Saturday, May 7, 2005**. Information regarding the symposium including electronic submission will be available on the following website: http://www.newyorkacs.org/grp_students.html.

The deadline for submission is **April 5, 2005**.

The highlight of this year's symposium is the

keynote address, "Scale Your Enthusiasm", to be delivered by Dr. Stephen O'Brien of Columbia University. Dr. O'Brien's research involves the synthesis and characterization of nanostructured materials, self-assembled organic-inorganic materials, and nanotechnology. Dr. O'Brien will discuss some aspects of nanoscale science and engineering of materials, its effect on existing technologies, and the integration of future technologies.

Faculty who are directing the research efforts of undergraduate chemistry students are asked to encourage their students to participate in this worthwhile event. Guests are welcome to attend this event and should register at the above website.

Date: Saturday, May 7, 2005
Times: Registration 9:30 AM
Symposium to follow
Place: Stony Brook University
Stony Brook, NY

For further information contact: rkabbani@pace.edu or jrehmann@sjcny.edu.

National

CALL FOR NOMINATIONS

The Committee on Minority Affairs is soliciting nominations for the **Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences**.

Nominees for this award may come from any professional setting: academia, industry, government or other independent facility. ACS local sections and divisions also are eligible for nomination. The awardees will have increased the participation and leadership of persons from diverse and underrepresented minority groups, persons with disabilities, and women through mentoring, hiring, promotion and/or other activities that lead to greater inclusiveness within the chemical sciences.

These awards are for each of the Regional Meetings taking place in the calendar year. For information please contact Stephanie R. Allen, ACS Department of Diversity Programs, (800) 227-5558, ext. 6262.



RECRUIT A MEMBER IN 2005 AND RECEIVE A GREAT GIFT

The 2005 Member-Get-A-Member Campaign is in full swing. This year's goal is to add one new member each day – 365 in all.

Introduce a colleague or friend to the benefits of joining ACS, and once your candidate is accepted, you'll receive a custom-made throw created exclusively for this year's initiative. Measuring a generous 57" x 43" and featuring a full size periodic table of the elements, this throw will look great spread across the back of a couch, tossed over the arm of an easy chair, or stretched and mounted for display. In addition you will be enrolled in the President's Club and your name will appear in the February 13, 2006 issue of Chemical & Engineering News.

You are entitled to nominate as many candidates as you like during the campaign using a separate Member-Get-A-Member application form for each nomination. (Please be aware that the program does not apply to student affiliate recruits, i.e. undergraduate

students.)

Please help us reach our goal of 365 members in 2005. Look around at meetings, in your office or lab. Who do you see who belongs in ACS but has not, as yet, joined? Find someone? Then get the ball rolling by going to chemistry.org/membership/mgm.html and downloading an application.



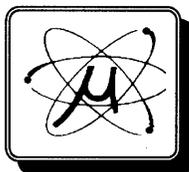
ACS WOMEN CHEMISTS COMMITTEE TRAVEL AWARDS - YEAR 2006

The Eli Lilly & Company is sponsoring a program to provide funding for undergraduate, graduate, and postdoctoral women chemists to travel to scientific meetings in 2006 to present the results of their research. Grants may be applied only for registration, travel, and accommodations, and are restricted to travel to meetings within the United States. Grant funds are limited, but there are some funds set aside for undergraduates. Only U. S. citizens and permanent residents are eligible. Applications should be limited to one per research group. Awards will be given with preference to the following order: (1) any applicant who will be making her first presentation (regardless of format) at a national or major meeting, (2) graduate or postdoctoral applicants who have not presented at a national or major meeting since leaving undergraduate school. Women who have received a prior award under this program are ineligible.

The deadline dates for receipt of applications are as follows:

- * September 15, 2005 – Meetings between January 1 and June 30, 2006
- * February 1, 2006 – Meetings between July 1 and December 31, 2006

For detailed information about this award and how to apply visit the Women Chemists Web site at <http://memberships.acs.org/W/WCC/> or contact the WCC office at wcc@acs.org.



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ATTENTION LOCAL SECTION YOUNGER CHEMISTS!

Submit your Local Section Younger Chemist activities for publication on the National Younger Chemists Committee (YCC) website and/or in the YCC Newsletter. YCC would like to recognize and publicize local section younger chemist events...including yours!

To see your local section's younger chemist event featured, please submit a short summary (a paragraph or two), at least one photo, and the name / email of a representative that can be contacted for additional details (if needed).

Events will be featured on a rotating basis in the Local Action section of the YCC website (www.chemistry.org/ycc) and unique/outstanding events will be chosen for publication in the YCC newsletter, which is distributed to all ACS members under 35 bi-annually.

Please send submissions to Kathy Glasgow or Maureen Kane at ycc@acs.org

Call for Nominations

ACS NEW YORK SECTION'S OUTSTANDING SERVICE AWARD FOR 2005

Each year the New York Section presents an Outstanding Service Award to the most deserving member of the section. Many members of the New York Section provide their time, leadership talent, educational skills and other valuable assets to the New York Section and the section leadership wants to recognize their outstanding contributions. Nominations will be reviewed by a committee consisting of the previous five winners of the award.

The tradition of excellence of the New York Section is directly attributable to the cumulative effect of these individuals. Please help us to recognize the efforts of our colleagues by nominating them for this award. Now that you've finished your annual reports to the section each subsection and topical group may reward one of your most active members by nomination for the New York Section's Outstanding Service Award. The award will be

presented at the New York Section's General Meeting and Section-wide Conference in January 2006.

Nominations with supporting data should be mailed to Professor Yorke E. Rhodes, 1629 Glenwood Road, Route 565, Sussex, NJ 07461 or e-mailed to yr2@nyu.edu. Nominations may be sent as a letter describing the details of the contributions of the member. A Seconding nomination letter is highly recommended.

For more information about the award along with a list of former award recipients, please visit the New York Section website at www.NewYorkACS.org.

Nominations should be forwarded to Professor Rhodes by **May 31, 2005**.



THE WILLIAM H. NICHOLS MEDAL AWARD FOR 2006

The New York Section is accepting nominations for the William H. Nichols Medal Award for the year 2006. This distinguished award, established in 1902 by Dr. William H. Nichols, for the purpose of encouraging original research in chemistry, is the first award authorized by the American Chemical Society. It is presented annually in recognition of an outstanding contribution in the field of chemistry, and consists of a gold medal, a bronze replica and \$5000. The medals are presented at the William H. Nichols Meeting that consists of a Distinguished Symposium related to the medallist's field of expertise and a Medal Award dinner.

Investigators who have published a significant and original contribution in any field of chemistry during the five calendar years preceding the presentation meeting are eligible for consideration by the Nichols Medal Jury.

Nomination forms may be obtained from: The American Chemical Society's, New York Section, Inc., Department of Chemistry, St. John's University, 8000 Utopia Parkway, Jamaica, NY11439. The request may be faxed to 516-883-4003 or e-mailed to njesper1@optonline.net (The New York Section Office). Forms and additional information about the William H. Nichols Medal, including a list of past recipients may also be obtained from the New York Section website at www.NewYorkACS.org. Six copies of the nominating materials and the official nomination form should be sent to the above mail

address. **Nominations must be received by May 31, 2005.** The Nichols Medal Award Jury will meet in June to select the Nichols Medalist for 2006.



THE PAUL J. FLORY POLYMER EDUCATION AWARD

Purpose: To recognize, encourage, and stimulate outstanding achievements by an individual in promoting undergraduate and/or graduate polymer education.

Nature: The award consists of a plaque and an honorarium of \$2000. The award is usually presented biennially in even-numbered years at the Spring meeting of the Polymer Chemistry Division. The recipient is expected to present an address at a symposium organized in his/her honor. Reasonable travel expenses to the meeting are paid in addition to the honorarium.

Establishment and Support: The award was established in 1981 and is administered by the Polymer Chemistry Division. The DuPont Company sponsors the award.

Previous Recipients: Herman F. Mark, Carl S. Marvel, Paul J. Flory, Maurice Morton, Charles G. Overberger, George B. Butler, Eli M. Pearce, Leo Mandelkern, Eric Baer, Roger Porter, James E. Mark, U. W. Suter and the team of James E. McGrath, Thomas

C. Ward and Garth L. Wilkes.

Rules for Eligibility: A nominee must be a member or affiliate of the ACS Division of Polymer Chemistry at the time of nomination. The award shall be granted to an individual or team for significant contributions in furthering polymer education. The award shall be granted to an individual or team without regard to race, color, national origin, sex, religion, age, disability, or sexual orientation.

Nomination Procedure: Eight (8) collated individual copies of a complete nominating document, including a synopsis of the accomplishments of the nominee, a curriculum vitae, and a maximum of five reprints or other supplementary material for each copy, shall be submitted to the Awards Chairman for distribution to the committee. The document should be letter-size. A maximum of three (3) supporting letters, which contain factual information about the candidate not provided in the nominating document may be attached to the nomination. The nomination and its accompanying material for the 2006 award must be postmarked no later than **July 1, 2005**. Address nominating material to: Dr. Thomas J. Pacansky, 281 Valley Drive, Watchung, NJ 07069.

Dr. Thomas J. Pacansky
281 Valley Drive, Watchung, NJ 07069
Tel. (908) 753-0175 • Mobile (908) 672-3420
Email T.Pacansky@worldnet.att.net

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Puzzle Solution

1	T	S	W	E	T		6	C	O	L	U	M	N			
12	O	P	E	R	A		13	A		14	R	A	N	E	Y	
15	R	O	B	I	N				16	S	E	N	I	A	C	
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45	S	A	B	R	E		46		V		47	A	E	T	N	A
49	S	T	R	A	D			A		50	D	R	E	G	S	
51	A	Z	A	L	E	A			52	A	Z	O	R	E	S	

CALL FOR NOMINATIONS

(continued from page 25)

OVERCOMING CHALLENGES AWARD

The Overcoming Challenges Award (OCA) acknowledges the efforts of women and undergraduates who have overcome economic, personal, and/or academic hardships in pursuit of an education in the chemical sciences. The award consists of a plaque, a \$250 honorarium, and \$1,000 for travel expenses to the fall ACS National Meeting where the award is presented. Award candidates must be women matriculating as an undergraduate chemical science major/minor in a two-year program or at a four-year school not granting a doctoral degree in chemical-related disciplines. **Nominations are due May 1, 2005**, and should be sent to: Women Chemists Committee, American Chemical Society, 1155 16th Street, N.W., Washington, DC 20036. For additional information, contact the WCC at wcc@acs.org or visit <http://membership.acs.org/W/WCC>.

Others

ASSOCIATION OF CONSULTING CHEMISTS & CHEMICAL ENGINEERS, INC.

Single Screw Compounding and Venting: A Paradigm Shift

Speaker: Keith Luker
President
Randcastle Extrusion Systems

Historically, single screw extruders have not mixed or vented as well as twin screw extruders. It is now understood that the key to successful compounding is the creation of multiple elongational flow fields. It is also understood that effective venting results from the creation of large surface areas that expose the entrapped gases to vacuum. It has been discovered that compounding and venting can be combined in a single element that creates multiple elongational flow fields and a thin film for degassing. The compounding/venting element consumes as little as 2 L/D's and so permits at least 3 compounding elements in only a 36/1 screw. Many extruded products can benefit

from superior compounding and venting.

After earning a BA degree in Technology from Montclair State University, Keith Luker joined Killion Extruders. Keith managed sales, manufacturing, the lab, and created their seminar program and in 1984 became Vice President of Development.

Keith founded Randcastle Extrusion Systems a company designed to build the world's smallest extrusion lines in all forms where he remains as president. In addition, he has given 1 to 3 day courses in extrusion for The Society of Manufacturing Engineers, the Society of Plastics Engineers, and other organizations promoting plastics. Keith is the author of over thirty papers on extrusion and holds three patents in extrusion.

Date: Tuesday, May 24, 2005
Times: Networking/Cash Bar 6:00 PM
Dinner 6:30 PM
Presentation 7:30 PM
Place: Snuffy's Pantagis Renaissance
Park & Mountain Ave.
(Route 22 East)
Scotch Plains, NJ
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MID-ATLANTIC CHAPTER - LABORATORY ROBOTICS INTEREST GROUP

Eleventh Annual Technology Exhibition & Presentations

An exciting day is planned with laboratory robotics, laboratory automation, other advanced technology exhibits in the main hall. Oral Presentations will be featured in the seminar areas throughout the day. Over one hundred exhibitors will demonstrate their latest products and services. Extensive

hors d'oeuvre, courtesy of the exhibitors, will be available as well as cash bars.

Open career positions or resumes may be posted on the job board.

There is no fee to attend the meeting.

Date: Tuesday, May 17, 2005
Place: Hilton East Brunswick
Three Tower Center Boulevard
East Brunswick, NJ

Register on-line at: <http://lab-robotics.org/member/meetings.asp?rid=1>.



ACADEMIC POSTER CONTEST SPONSORED BY THE LABORATORY ROBOTICS INTEREST GROUP, MID ATLANTIC CHAPTER

The competition will be run in conjunction with the **May 17, 2005** annual technology exposition and meeting. Prizes to be announced.

Students may enter posters on ANY topic in the biological, earth, or physical sciences. Content relating to automation or robotics is encouraged but not required. Posters entered by full time faculty members must include content related to laboratory automation or advanced laboratory technology.

To enter a poster please call or write to Kevin Olsen, LRIG Publicity Chairman, (973) 655-4076 or OlsenK@Mail.Montclair.edu

Additional Meeting details and pre-registration at: <http://lab-robotics.org>

Food and refreshments will be available FREE OF CHARGE during the Exhibition and Social Period.



CHEMICAL HERITAGE FOUNDATION

Moore's Law at 40: Chemistry and the Electronics Revolution

On **Friday, May 13, 2005**, the Chemical Heritage Foundation will host an all-day symposium featuring Gordon E. Moore and leaders in chemistry and technology assessing both the impact of Moore's Law and the enabling role of chemical science and engineering in the development of the semiconductor industry. The event will begin with a public lecture the evening before the symposium.

In 1965, Gordon Moore published an observation and prediction about the exponential growth in the power of semiconductor technology, now known around the globe as "Moore's Law." Over the forty years since this initial publication, the semiconductor industry has produced a remarkable array of innovations that have kept it on the developmental curve of Moore's Law. Indeed, this developmental pattern has become such a defining feature of the industry and its technology that current industry-wide efforts aim explicitly at continuing Moore's Law well into the future.

"It is a great privilege for us to hold this important event," said Arnold Thackray, president, Chemical Heritage Foundation. "The technological revolution and pace of change defined by Moore's Law touches billions of lives around the globe. CHF is launching a much-needed historical assessment of this pervasive principle of modern life."

When he received the Othmer Gold Medal in 2001, Moore delighted an audience of chemistry professionals by declaring, "The semiconductor industry is a chemical industry." CHF's symposium will reflect upon and assess the role of the semiconductor as the most revolutionary technology of the past half century, a technology that is critically enabled by chemical science and engineering.

Symposium speakers include:

(continued on page 28)

CHEMICAL HERITAGE FOUNDATION

(continued from page 27)

- * Gordon Moore
Chairman Emeritus and Co-Founder
Intel
- * Raj Gupta
Chairman and CEO
Rohm and Haas
- * Carver Mead
Chairman and Founder
Foveon
- * Paul Otellini
President and COO
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Contribute to The Indicator

The Indicator is interested in adding new features to the publication. Your input would be appreciated. Please let us know which type of feature you would like to see in future issues; i.e., book reviews, member news, short articles about your research or other ideas. Would you be willing to assist in gathering or writing such material?

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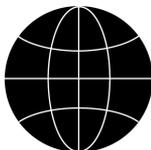
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