



ALI "QUOTES"

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THE NEWSLETTER OF THE PRINCETON ACS

March/April 2007

Website <http://www.princeton.edu/~pacs/>

Joint Trenton/Princeton ACS Dinner Meeting

Tuesday, March 13, 2007

Dinner & Tour of Triumph Brewery,
Princeton, NJ

Schedule

6:00 pm - Arrival and social time

6:30 pm - Tour of the Brewery with Brewer
Tom Stevenson

7:00 pm (or at the end of the tour) - Dinner
(a la carte from the menu)

Please join us for this opportunity to learn about the art and science of beer making and to socialize with our colleagues in the Trenton Section!

Reservations

Contact Bruce Burnham, Rider University (email: bburnham@rider.edu or phone: 609-896-5207) by March 9th to make or cancel reservations.

Address & Directions

Princeton Triumph Brewing Co., 138 Nassau Street,
Princeton, New Jersey, 08542, Phone: 609 924 7855

Triumph is at 138 Nassau St (Rte 27) between Witherspoon and Vandeventer, a few doors down from the movie theater. Metered parking is located on Nassau Street and in lots behind Triumph. See www.triumphbrewing.com for menus and maps.

Monthly Dinner Meeting

Thursday, April 26, 2007

Guest speakers will be

Dr. John H. Dawson, University of
South Carolina, Columbia, SC

"Cytochrome P450 and Peroxidase Enzymes in Metabolism and Disease"

Time: 6:00 PM

Lecture: Frick Laboratory, room 120

Dinner: Kalluri Corner (following lecture)

Abstract:

Cytochrome P450 is a remarkably versatile heme-containing oxygenase that is responsible for the metabolism of steroids and medicines and, unfortunately, the generation of carcinogens. The P450 mechanism involves formation of a substrate-bound oxyferrous state. For over thirty years, researchers have speculated that reduction of oxyferrous P450 leads to a set of highly reactive intermediates. Recent research advances have enabled us to directly study these transient states.

Halophenols found in drinking water as a result of industrial processes pose both environmental and health hazards. We have been investigating halophenol dehalogenation by heme-containing peroxidases and globins. Surprisingly, under conditions of oxidative stress, the oxygen binding protein myoglobin catalyzes such reactions. The health implications of this discovery will be discussed in light of the fact that the products formed are known to irreversibly bind to DNA.

Biography:

Dr. Dawson received an A.B. in Chemistry from Columbia University in 1972 and his Ph.D in Chemistry (Biochemistry minor) from Stanford University in 1976. In 1978 he joined the University of South Carolina as Assistant Professor, Department of Chemistry & Biochemistry and School of Medicine. He became a full professor in 1987. Since 1987 he has been Carolina Distinguished Professor, University of South Carolina.

He is a member of the editorial boards of Chemtracts-Inorganic Chemistry and Journal of Biological Chemistry, and Editor-in-Chief for the Journal of Inorganic Biochemistry. He has been a member of the International Scientific Advisory Committee., 9th - 15th International. Conference on Cytochrome. P450: Biochem. Biophys. Mol. Biol. since 1995. He has over 170 research publications and review articles.

Reservations

The meeting will be held in room 120, Kresge Auditorium, Frick Laboratory, Princeton University (see www.princeton.edu/~pacs for more information). The seminar is at 6 PM followed immediately by dinner at Kalluri Corner Restaurant, 235 Nassau St. Princeton, NJ. The seminar is free and open to the public. Reservations are required for dinner, which is \$25 for full members, \$15 for retirees and \$10 for students. All reservations will be billed, for the section pays on the number of reservations, not the number of attendees. Please contact Denise D'Auria at (609) 258-5202 or denised@princeton.edu by Thursday, April 19 to make or cancel reservations.

Board Meeting Schedule:

The meeting schedule of the Executive Committee of the Princeton Section is:

Friday, April 20, 2007
Friday, July 20, 2007
Friday, October 19, 2007

They are held at Wyeth Research, Monmouth Junction, NJ from 11:30 AM to 1:30PM. The meetings are open to all the membership. If you would like to attend, please contact Lynne Greenblatt at greenbl1@wyeth.com to be added to the list of attendees. Also, if you are interested in helping out on any committee or would like to know more about the program, please contact the committee chair listed at right. They would like to hear from you!

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CHEMAGINATION CONTEST HELD

Louise Lawter and Sharon Sibilia, Coordinators



The Chemagination competition, sponsored by the Princeton and Trenton Sections of the American Chemical Society was held at Princeton University, Friend Center on Saturday, February 24. For this competition, high school students are asked to *imagine* that they are living 25 years in the future and have been invited to write an article for [ChemMatters](#), a magazine for high school students that focuses on the role of chemistry in everyday life. The subject of the article is: “Describe a recent breakthrough or innovation in chemistry and/or its applications that has improved the quality of people’s lives today.” The article is written to fit in one of four categories (either Alternative Energy Sources, Environment, Medicine/Health, or New Materials.)

Thirteen teams, totaling thirty-eight students, from Delaware Valley Regional High School (Beckie Hotz and Carol Peabody, faculty advisors), Hopewell Valley Central High School (Lillian Rankel, faculty advisor) and West Windsor-Plainsboro High School South (Cindy Jaworsky, faculty advisor) participated in the event. In their articles, the students demonstrated a knowledge of current research areas and creatively extrapolated these to future breakthroughs. First and second place awards in each category were given and winners received \$100 (1st place) and \$50 (2nd place) savings bonds. PACS members Barbara Ameer, James DeNoble, Linda Phillips and Randy Weintraub had the difficult task of choosing the winners! While the judges made their decisions, Kathryn Wagner and assistants Peter Wei (Princeton '10), Pritha Gosh (Princeton '08), and Michael Constantinides (Princeton '07) demonstrated the concept of phase change using cream and liquid nitrogen. In addition to gaining knowledge, the students were able to consume the resulting tasty ice cream treat! Many thanks to the teachers, students, judges and everyone else who helped to make this event a success and congratulations to the winners!

First Place Winners

Alternate Energy: Emily Carlson, Christina Fan, Jessica Yan, West Windsor-Plainsboro High School South, “*Antimatter: From Fiction to Function*”

Environment: Daphne Ezer, Kimberly Li, Lily Yu, West Windsor-Plainsboro High School South, “*Fish Bite Back*”

Medicine/Healthcare: Lena Phalen, Sami Musumeci, Katia Sherman, West Windsor-Plainsboro High School South, “*A New Hope: Nobel Prize Contender Creates Cure for Diabetes*”

New Materials: Mengsong Li, Benjamin Ro, Ethan Stern, West Windsor-Plainsboro High School South, “*Rolistern: A Revolutionary Lifesaver*”

Second Place Winners

Alternate Energy: Ben Castria, Trevor Saunders, Stephan Sansone, Hopewell Valley Central High School, “*Innovation of Vegetable Oil as a Fuel*”

Environment: Alp Yurter, Piyush Poddar, David Hao, West Windsor-Plainsboro High School South, “*Project Cosmo: The One Reaction That May Save Us All*”

Medicine/Healthcare: Nancy Ko, Sasha Mintz, Niki Thaper, West Windsor-Plainsboro High School South, “*Going Back to Basics: Immonotube-C Saving the World One Person at a Time*”

New Materials: Kevin Gu, Patrick Li, Ben Gelsey, West Windsor-Plainsboro High School South, “*Friction Free Joints: Friction with Carbon Nano-Complexes*”

Photo Gallery

Ice cream Demo Team
(photo at right)





**First Place
Alternate Energy Category**

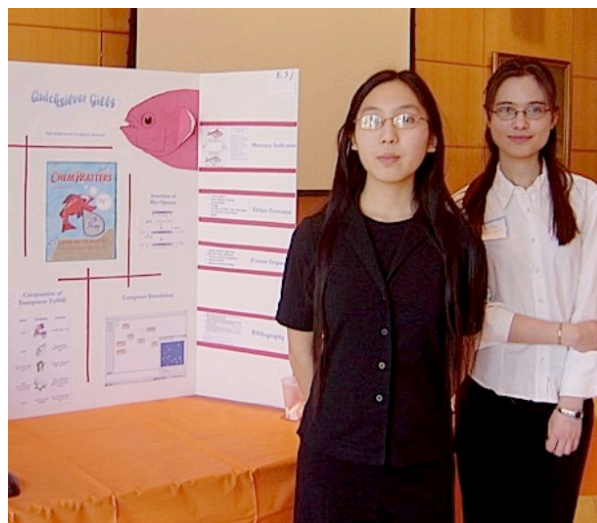
Emily Carlson, Christina Fan, Jessica Yan

(left photo)

**First Place Winner
Environment Category**

Daphne Ezer, Kimberly Li, Lily Yu,

(right photo)



**First Place Winners
New Materials Category**

Kevin Gu, Patrick Li, Ben Gelsey

(left photo)



**First Place Winners
Medicine/Health Category**

Nancy Ko, Sasha Mintz, Niki Thaper

(right photo)



MARM 2007

The 39TH Middle Atlantic Regional Meeting (MARM) Announces the opening of its registration & online abstract submittal process.

Ursinus College, Collegeville, Pennsylvania, is the site for the ACS MARM 2007 Regional Meeting, hosted by the Philadelphia Local Section. The dates are May 16 – 18. Both advance registration and online abstract submittal are open but will be closing in a very few weeks. Students are also encouraged to submit their work.

General Co-Chairs, Victor Tortorelli and Sharon Haynie, and their committee have put together an exciting and innovative program selected with the professional interests of the members in the region in mind. Visit the website at www.marmacs.org for a listing of presentations and events by day. Among the many topics are biological chemistry, chemistry of aging, sirtuin biochemistry, molecular magnetism, carbon nanotubes, glycoproteins, and excited electronic states.

The meeting will open Tuesday evening, May 15, with a welcome reception; and a barbecue will be held Wednesday evening. Also planned is a Cope Scholars Award symposium, along with several awards recognizing the contributions of chemists, industry, and educators in the region, a Women Chemists luncheon and half-day workshop on “Thriving in the Workplace” and ACS Career Management workshops.

Dr. Anne O’Brien will host a District Directors Breakfast Thursday, May 17. All attendees are invited for a complimentary breakfast and to meet governance, hear the latest news from the spring national meeting, and offer comments, suggestions, and opinions on your Society. Following breakfast is a symposium on Green Chemistry, the first formal Presidential Event at a regional meeting sponsored by ACS President Katherine Hunt.

This Month In Chemical History - Part I

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

To increase my supply of background material for these columns, I bought a useful book: “The Illustrated Almanac of Science, Technology, and Invention” by Raymond L. Francis (Plenum Press, 1997).

On January 1, 1801 the Italian astronomer Giuseppe Piazzi discovered the first and the largest of the asteroids, and called it Ceres after a Roman deity. In 1803 William Hyde Wollaston, an English chemist, while working on the purification of platinum isolated a new metal from

platinum ores. Following an old tradition of associating metals with planets, that dates back to alchemical days, Wollaston at first thought of calling his new metal ceresium after the newly discovered asteroid. Apparently ceresium just didn’t sound right to him, and luckily another new asteroid had just been discovered and named Pallas. Deciding that in this case second thoughts were best Wollaston in his initial announcement of the new metal (in an anonymous handbill offering samples for sale, but that’s another story) called it palladium, a name it has retained.

On January 2, 1902, one of the greatest of popular science writers, Isaac Asimov, was born in Russia. When he was three his family emigrated to the United States. Asimov earned his Ph. D. in chemistry from Columbia University in New York, then taught biochemistry at Boston University, but soon found that writing was his preferred way of teaching. He published some 500 books in virtually every genre imaginable. Perhaps he is best known for his science fiction, but he wrote a vast amount of non-fiction including a lively (and occasionally misleading) short history of chemistry and a very valuable biographical dictionary of scientists that I have frequently made use of in writing these columns. Carl Sagan called him “...one of the master explainers of the age...”

On January 3, 1888, one of the all-time great inventions received its first U.S. Patent – the artificial drinking straw. Marvin D. Stone, concerned about the use of potentially unsanitary natural reed straws in the imbibing of liquids, devised a process for coating manila paper with paraffin wax, a product of the young petroleum industry, and hand rolling them into straws. The first machine-rolled straws came off the production line some seventeen years later.

VOLUNTEERS NEEDED FOR PUSEE!

By Kathryn Wagner

Princeton's fourth Science and Engineering Expo for seventh graders will be held on Thursday, March 22, 2007, from 9:00 am to 1:30 pm. This is a campus-wide event involving biological sciences and PEI, Engineering, PPL, PRISM, and Physics. 800-900 students are expected.

Once again, the Chemistry Department has been asked to participate, and I need your help. If you are (or can be) available for all or part of that day, please consider contributing your time. In the past, as most of you know, we have had a short program of demonstrations in the Frick auditorium and a mini-lab in the Frick general chemistry laboratory. Without your help, the mini-lab portion is impossible.

If you can help to inspire some seventh graders on March 22, please email Kathryn Wagner at kmwagner@princeton.edu.

**Textile Research Institute - Short Course
April 24-26, 2007**

**Human Hair / Cosmetic Interactions:
Fundamentals and Methodology**

This intensive short course, based on the premise that an understanding of how cosmetic treatments affect human hair properties, is critical for the development of successful products. All courses, held in Princeton, New Jersey, are graduate-level and contain lectures, practical seminars, and instrument demonstrations. For more information on each of these educational opportunities, please contact the Course Registrar by phone: (609) 430-4828, fax: (609) 683-7149 or Email: info@triprinceton.org or visit their website at www.triprinceton.org.

TRI/Princeton was founded in 1930 as the Textile Research Institute to help the American textile industry stay competitive. Over the decades, TRI has evolved into a full-service research and testing facility, specializing in hair, fibers, porous materials, polymers, and films. TRI provides research solutions to a wide variety of domestic and international industrial companies, governmental organizations, and academic institutions.

American College of Clinical Pharmacology

presents the

19th Frontiers Symposium

***“Innovative Approach for Early Drug Development
– Disease Models and Novel Trial Design”***

**Monday, April 30—Tuesday, May 1, 2007
Baltimore Marriott, Waterfront Hotel, Baltimore, MD**

Co-Chairs:

Susan T. Hall, Ph.D., FCP, Valeant Pharmaceuticals
Int'l, Aliso Viejo, CA

Barbara Ameer, Pharm.D., M.B.A., BCPS, FCP,
Consultant, Princeton, NJ

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