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Monthly Dinner Meeting

Wednesday, May 11, 2011

our guest speaker will be

Professor Joseph Delfino

Department of Environmental Engineering Sciences,
University of Florida

"Industrial Ecology Meets Environmental Chemistry"

Social mixer begins at 5:30 pm in Frick Laboratory,
Taylor Commons, Princeton University. Presentation is at 6:30 pm in the Auditorium
followed by dinner in Taylor Commons.

Abstract

In recent decades, the concept of sustainability entered the mainstream of thinking in society and eventually became incorporated into segments of corporate America. Over time, early leaders in this emerging field created the concept and term Industrial Ecology to provide the underlying science to support sustainability initiatives.

Environmental Chemistry emerged separately, perhaps in the late 1950's and through the 1960s, when its first texts appeared. ACS subsequently accepted Environmental Chemistry as a re-named Division incorporating water, air and waste pollution in the 1970s. Environmental Chemistry forged an understanding of the fate and transport of persistent chemicals that entered America's waterways and then accumulated in living organisms and sediments.

Polychlorinated biphenyls [PCBs] are perhaps the most serious chemicals to have ever assaulted our national waterways. Labeled "toxic" and "priority pollutants," they were banned from production and use in the USA in 1976 yet they still reside in the environment. Had Industrial Ecology and its concepts [e.g. life cycle assessments] been around when PCBs were first developed, perhaps these global pollutants would never have gotten out of the laboratory. PCBs, and eventually PCB substitute compounds, form the basis of a case study to be discussed that demonstrates one example of a linkage between Industrial Ecology and Environmental Chemistry.

Biography

Dr. Delfino earned his BS in Chemistry and Philosophy from Holy Cross College and a MS in Chemistry at the University of Idaho. His Ph.D. in Civil &

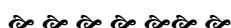
Environmental
Engineering and Water
Chemistry was earned at
the University of
Wisconsin-Madison under
the guidance of Dr. G.
Fred Lee.

He has served on the faculties of the U.S. Air Force Academy [while on active duty as a Captain in the USAF], and, after a stint in the consulting industry, joined the University of Wisconsin-Madison faculty, and for the past 29 years, has been at the University of Florida. His interests include water chemistry and analysis, water resources sustainability, and industrial ecology. He is currently an Associate Editor of the Journal of the American Water Resources Association and is a Fellow of the Association as well as AAAS.

Reservations

The meeting will be held in Frick Laboratory (the new chemistry building), Princeton University. The social mixer will begin at 5:30 pm in Taylor Commons (the atrium of the new chemistry building). The lecture will be held in the Auditorium at 6:30 pm followed by dinner in Taylor Commons.

Frick Laboratory is located at the east end of the pedestrian bridge on Washington Road, adjacent to the Weaver Track and Field Stadium. Parking is available in Lot 21, corner of Faculty Road and Fitzrandolph Road or other lots along Ivy Lane (see www.princeton.edu/main/visiting/ for other parking options). The seminar is free and open to the public. Reservations are required for dinner, which is \$20 (\$10 for students). Please contact Louise Lawter at louise.lawter@gmail.com or 215-428-1475 by May 5 to make reservations. Reservations must be canceled no later than May 9 to avoid being billed for the dinner.



Dinner Meeting & Summer Picnic

Thursday, June 16

our guest speaker will be

Danielle DiNallo

Global Analytical and Sensory Measurement,
International Flavors & Fragrances Inc.

“Analytical Techniques to Ensure the Performance and Quality of Encapsulates”

Abstract:

Fragrance ingredients are used in a wide variety of household and personal care products. However, it is often the case that hedonically important

fragrance molecules are incompatible with various bases, are not substantive, or would be more impactful if they could be released at specific points of product use. This can be achieved through development of a more complex fragrance system that contains encapsulated fragrance ingredients.

The ability to create successful fragrance capsule systems and products requires a tremendous amount of analytical support to ensure quality, monitor stability and confirm performance. This presentation will address the development of chromatography-based methods that we have employed to evaluate fragrance capsule systems, how our lab has incorporated automation to handle large volumes of samples for these various methods and how chromatography data fits in to creation of successful capsule-containing products.

Biography

Danielle DiNallo is currently a Research Investigator at International Flavors & Fragrances Inc., located in Union Beach, NJ. In the 10 years that she has worked at IFF she has focused on trace chromatography techniques for the study of a variety of commercial systems including contaminants in raw materials, detection of heteroatom containing constituents and headspace-based sampling methods. Many of these headspace methods have been applied to capture volatile materials from products and other systems to establish a correlation with olfactive data. Danielle has also worked extensively on developing a highly automated approach to determine the fate of polymerization byproducts using integrated preparation/analysis systems.

Danielle obtained a BS degree in chemistry from The College of New Jersey and a MS degree in chemistry from Seton Hall University. Her graduate research was in drug and steroid analysis by SPME on-fiber derivitization with GC/MS.

Reservations

The meeting will be held in Frick Laboratory, Princeton University. The social mixer will begin at 5:30 pm in Taylor Commons (the atrium of the new chemistry building). The lecture will be held in the Auditorium at 6:30 pm followed by a picnic dinner outside of Taylor Commons (inside if it rains!)

Frick Laboratory is located at the east end of the pedestrian bridge on Washington Road, adjacent to the Weaver Track and Field Stadium. Parking

is available in Lot 21, corner of Faculty Road and Fitzrandolph Road or other lots along Ivy Lane (see www.princeton.edu/main/visiting/ for other parking options). The seminar is free and open to the public. Reservations are required for dinner, which is \$20 (\$10 for students). Please contact Louise Lawter at louise.lawter@gmail.com or 215-428-1475 by June 9 to make reservations. Reservations must be canceled no later than June 14 to avoid being billed for the dinner.



From the Chair

By Randy Weintraub, Chair 2011

Fellow PACS Members,

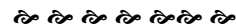


These are tumultuous times for many in chemistry and related sciences. It's critical to keep current in our main technical fields and even branch into related fields, keep a robust professional network, and keep developing interpersonal and leadership skills. Fortunately ACS and Princeton Local Section ACS (PACS) offer opportunities to help nourish these needs on a regular basis. PACS members enjoy the diverse mix of seasoned chemists and scientists, mid-career and younger chemists early in careers and a growing group of student members all with passions for the knowledge and applications of chemistry and related sciences. It's gratifying to me seeing the interactions among members at lecture-dinner meetings and outreach events of our Section. That helps to support individuals and build a healthy, vibrant scientific community through challenging times.

Coming up on our community outreach front is "Chemistry Works" on May 7th at Plainsboro Public Library. This will feature short talks and demos on the topic themes of International Year of Chemistry 2011: Energy, Medicine, Water and Food, presentations by Allen Jones, Barbara Ameer, Jini Gilchrist and Thomas O'Conner (US EPA), and Randy Weintraub, respectively. We'll also try to put the face of PACS and ACS out to the community. We plan to add this event to our program of annual activities. I am pleased to announce an Innovative Project Grant proposal written by a new member of the Executive Committee (Secretary) Barbara Ameer, was funded by the Grants and Awards Subcommittee on the Committee on ACS Local Section Activities for a re-launch of our Chemagination contest to a broader geographic region.

We continue our coverage of diverse chemistry and related science topics at lecture-dinner meetings in May with Professor Joseph Delfino of the University of Florida speaking on "Industrial Ecology Meets Environmental Chemistry." Hope to see you there.

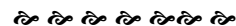
Thanks for reading,
Randy



Princeton Section Election Goes Green

by Lynne Greenblatt, Councilor

Last October, the Princeton Section Bylaws were amended, approved by the membership and certified by the ACS. One of the major changes in the bylaws allows us to now conduct our elections by electronic means. We hope that this change will result in more voter participation, reduced costs for the section, and reduced impact on the environment. Elections this year will take place during the month of October. In August, all Section members will receive a detailed announcement outlining the election procedures, including instructions on how to request a paper ballot if necessary. Members who do not have an e-mail address on file with the ACS will be notified via regular mail. Of course, we hope that all members will take advantage of the convenience of voting electronically. In order to ensure that you receive all the important communications from the Section, please take a moment to verify that your correct e-mail address is on file with the ACS. You can do so by calling ACS Member Services at 1-800-333-9511, or e-mail service@acs.org.



National Chemistry Week Event

by Allen Jones, NCW Chair

National Chemistry Week will be celebrated the week of October 16, 2011. The theme will be "Chemistry—Our Health, Our Future!" corresponding with the fourth theme of the International Year of Chemistry. There will be demonstrations and hands-on activities for the community participants. Volunteers are needed to help with planning and running the event. Contact Allen Jones, National Chemistry Week Chair, for more information (allen.n.jones@verizon.net).



2011 Contest Held on April 9th

By Louise Lawter, Program
Chair

A game changing innovation to mitigate climate change was reported by chemists at Princeton University today---

This could be the headline 25 years from now if innovations imagined by Chemagination 2011 participants come to fruition. The ninth annual Chemagination contest, sponsored by the Trenton and Princeton Sections of the ACS was held on Saturday, April 9 at Princeton University.

Thirty-five students from three local high schools competed. Teams of 2-3 students were asked to imagine that they were in the year 2036 and had made a chemistry related discovery that improved people's lives. They were to write an article about the innovation for ChemMatters Magazine and prepare the cover page as well.

It takes more than scientific knowledge to translate research into innovations. This contest is designed to develop other critical skills for tomorrow's entrepreneurs such as creativity, teamwork and problem solving.

The submissions had to be in one of four categories: Alternate Energy, New Materials, Environment and Medicine/Health. In addition to writing the article, the teams had to defend the science behind the innovation during an interview with 2-3 judges. 1st and 2nd prizes were awarded in each category.

During the selection of the winners the students listened to Dr. Donna Huryn, University of Pittsburgh and Dr. Jay Kostman, University of Pennsylvania School of Medicine speak about their career paths after receiving BA degrees in Chemistry.

The Princeton and Trenton Sections of the American Chemical Society wish to thank the dedicated science teachers who supervised and encouraged the efforts of their students: Dr. Dan Allen from Hunterdon Central Regional High School, Ms. Carol Peabody from Delaware Valley Regional High School and Ms. Julie Norato from West Windsor-Plainsboro HS North.

We also extend our sincere thanks to our judges Derk Huibers, Allen Jones, Jack McCaskie, Allen Puchalski, Hao Wang, and Randy Weintraub, to Dr. Donna Huryn and Dr. Jay Kostman for their well received presentation and Bruce Kubanoff for helping in so many ways.

First place winners will go on to compete in the Regional Chemagination Contest to be held at the Middle Atlantic Regional Meeting of the American Chemical Society (MARM) on Saturday, May 21, 2011. MARM is being hosted by the Chemical Society of Washington and will take place on the campus of the University of Maryland, College Park, MD.

And the winners are:

First Place:

Alternate Energy: Jessica Li, Sanjana Padmanabhan and Pranitha Rayapudi, "The Power of the Whale", West Windsor-Plainsboro High School North

Environment: Ben Cahill, Anna Meh Feindt and Carlie Skellington "From Black to Green", Hunterdon Central Regional High School

Medicine/Health: Haley Johnson and Hannah Menard, "Allergene", Delaware Valley Regional High School

New Materials: Peter Chi, Anup Regunathan and Saavanth Velury "Nature's Power Plant - The Ongoing Story of Mankind's Quest to Harness the Sun, and What it Means for You.", West Windsor-Plainsboro High School North

Second Place:

Alternate Energy: Sheena Desai, Robbie Luttrell and Harinee Suthakar, "Fueling Future Technology", West Windsor-Plainsboro High School North

Environment: Erica Louie, Daniel Rose and Alex Niemann "Devouring the CO₂ Crisis: Can a Microbe Really Cure the Earth's Carbon Dioxide Woes?", Delaware Valley Regional High School

Medicine/Health: Eric Bedard, Will Britt and Emily Campbell, "The Amazon: Discovery Leads to a Revolutionary Innovation", Delaware Valley Regional High School

New Materials: David Carr, Stephanie Eng and Paula Adhikari "Room Temperature Superconductors: Conducive to our Futures", Hunterdon Central Regional High School

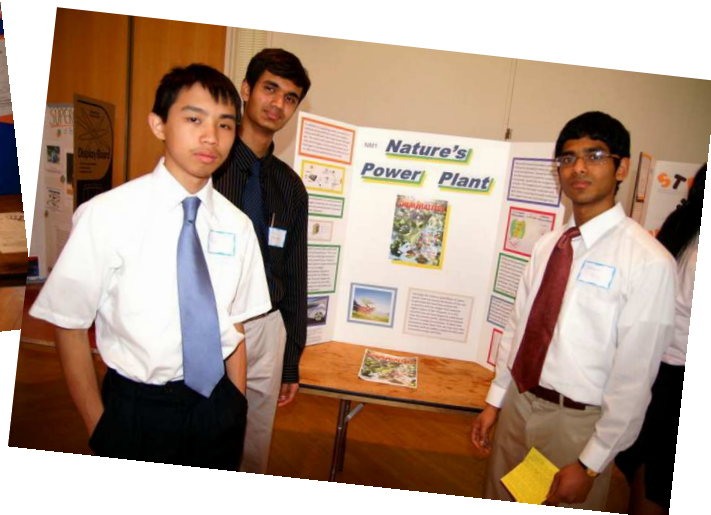
Phemagination 2011 Photo Gallery

First Place

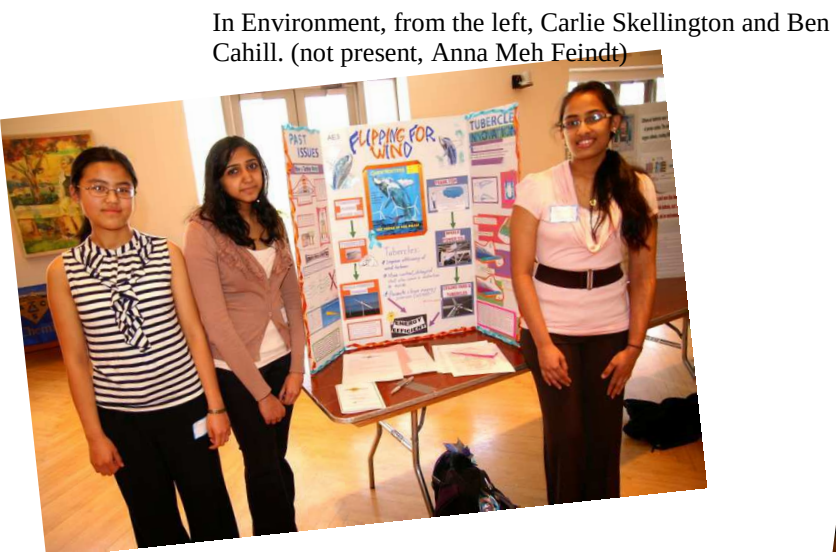
In Medicine/Health, from the left, Haley Johnson and Hannah Menard



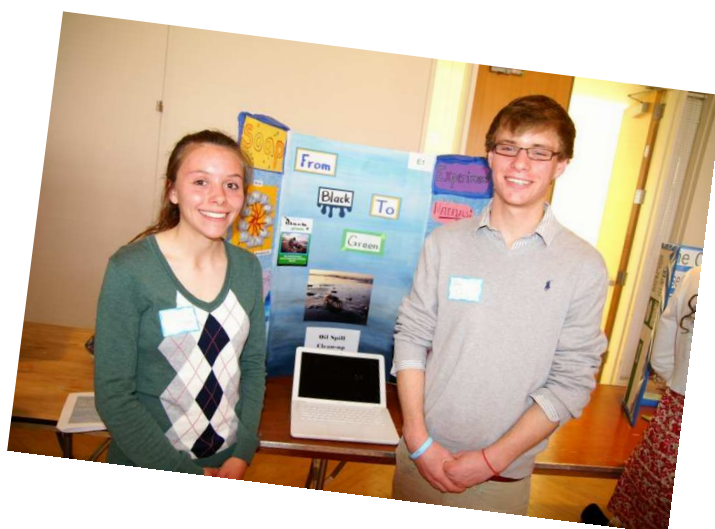
In New Materials, from the left, Peter Chi, Anup Regunathan and Saavanth Velury.



In Alternate Energy, from the left, Jessica Li, Sanjana Padmanabhan and Pranitha Rayapudi.



In Environment, from the left, Carlie Skellington and Ben Cahill. (not present, Anna Meh Feindt)



Phemagination 2011 Photo Gallery

Second Place

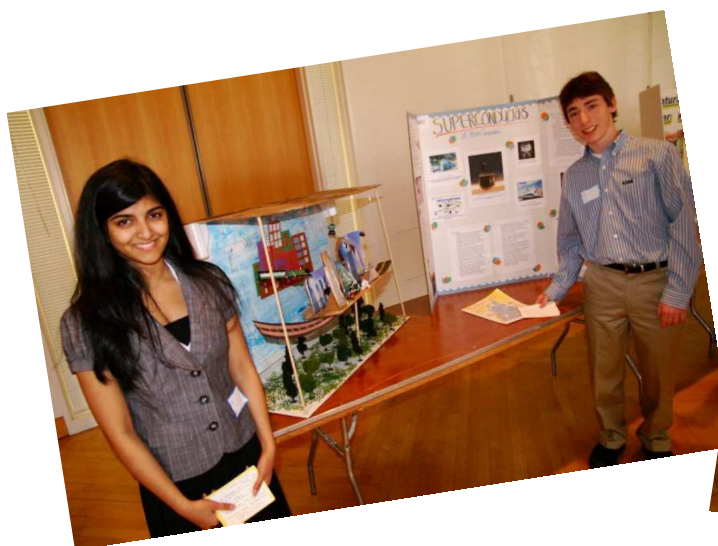
In Medicine/Health, from the left, Randy Weintraub presenting award to Eric Bedard (Will Britt and Emily Campbell not present)



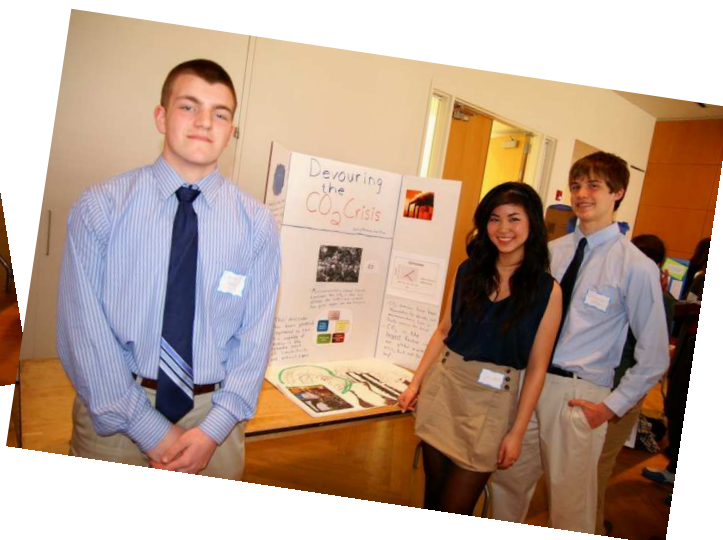
In Alternate Energy, from the left, Robbie Luttrell, and Sheena Desai (Harinee Suthakar not present)



In New Materials, from the left, Paula Adhikari and David Carr (Stephanie Eng not present)



In Environment, from the left, Daniel Rose, Erica Louie and Alex Niemann



News From National

By Louise Lawter, Councilor

The 241st ACS National Meeting took place in Anaheim, CA, March 27-31, 2011

Councilors were provided “talking points” after the governance meetings as an aide to communicating key actions with their local sections. I have summarized some of the points that I think are of particular interest.



Presidential Task Force Report: “Building A Robust Workforce In The U.S.”

From the beginning of Joseph Francisco’s presidential succession, he has focused on one overarching theme—ensuring that aspiring chemists and seasoned professionals in the U.S. have the skill sets, resources, and external environment to build and sustain a robust workforce in the U.S.

Last year, President Francisco appointed a task force charged with ensuring that the U.S. remains the most innovative and entrepreneurial country in the world. This task force was headed by Harvard University professor and entrepreneur George Whitesides and comprised eminent members of the chemical enterprise from industry, academia, and government, all with experience in entrepreneurship. They recommended specific programs that ACS could implement to help chemists become innovators and entrepreneurs and thus create new, high-paying sustainable jobs in the U.S. and stem further job losses.

The Task Force had many recommendations, which fall into four major categories.

First, the task force recommended that ACS should develop a single organizational unit—a kind of “technological farmers’ market”—offering affordable (or free) help to entrepreneurs. This unit is envisioned as supporting entrepreneurs by facilitating more

affordable access to resources that should foster the creation of small companies from startups.

Second, the task force recommended that ACS should increase its advocacy of policies at the federal and state level to improve the business environment for entrepreneurs and startup companies. The task force suggested that ACS should urge reforms within the U.S. Patent and Trademark Office to assure more accurate patents and faster issuance and making the R&D tax credit more simplified, permanent, and transferable. And there was a host of other ideas.

The third recommendation urged ACS to partner more vigorously with academic institutions and other relevant organizations to promote awareness of career pathways and educational opportunities that involve or include entrepreneurship.

And finally, the task force felt that ACS should increase public awareness of the value of early-stage entrepreneurship in the chemical enterprise with focused media coverage and information targeted to federal agencies that support chemistry.

In the near future, President Francisco plans to release the entire report to members, the public, and policymakers. If you have ideas, please send them to Madeleine Jacobs, m_jacobs@acs.org.

Other News: Actions Of The Council

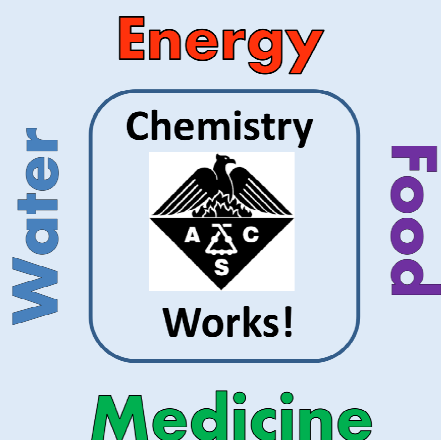
- Council selected Dennis Chamot and Marinda Li Wu as candidates for 2012 President-Elect. These two candidates, along with any candidates selected via petitions, will stand for election in the Fall National Election.
- Council voted to set the member dues for 2012 at the fully escalated rate of \$148. This rate is established pursuant to an inflation-adjustment formula in the ACS Constitution and Bylaws.
- 25,000 new members were added in 2010. The official membership number for 2011 stands at 163,111.
- As of March 30, 2011, the ACS spring national meeting had attracted 14,047 registrants as follows: Regular attendees, 7,336; Students, 4,682; Exhibitors, 1,097; Exposition only, 599; and Guests, 333.



\\\ 2011 EVENTS & NOTICES ///

Wednesday, May 11	Chemical Consultants Network, a Joint Meeting with IEEE Philadelphia Consultants Network (CONET). Speaker: Dr. Kathryn Bullock is an electrochemist with a Ph.D. in Physical Chemistry from Northwestern University. . In 2003, she formed her consulting company, Coolohm, Inc. Topic: Literature-Based Consulting (No Lab Required) Location: Cynwyd Club, 332 Trevor Lane, Bala Cynwyd, PA. Networking, 5:30 PM; Dinner, 6:30 PM; Talk and Business Session, 7:30 PM. To make or cancel a dinner reservation, e-mail CCNReservations@aol.com or call the ACS office at 215-382-1589. For more information see www.chemconsultants.org.
Thursday, May 12	Chemical Heritage Foundation – Joseph Priestly Society This installment of the Joseph Priestley Society (JPS) lecture series will include the symposium “Water Needs and Today’s Technology,” moderated by Karen Meidlinger, managing partner, Meidlinger Partners. The keynote address, “Water Sustainability: One Company’s Response,” will be given by Paul T. Bowen, water technology director, environmental and water resources, The Coca-Cola Company. Schedule: 10:00 AM, Symposium; 11:30 AM, Networking/Lunch; 1:00 PM, Keynote speaker Location: Chemical Heritage Foundation, 315 Chestnut St., Philadelphia, PA 19106 (discounted parking garage available on 4th just before Chestnut). For registration information see http://www.chemheritage.org/visit/events/public-events/2011-05-12-jps-symposium.aspx.
Saturday, May 21 to Tuesday, May 24	42nd Middle Atlantic Regional Meeting (MARM 2011) The Chemical Society of Washington Section of the American Chemical Society will host the 42nd Middle Atlantic Regional Meeting (MARM 2011) on the campus of the University of Maryland in College Park, Maryland from Saturday, May 21, to Tuesday, May 24. The meeting’s theme for this event is “International Year of Chemistry 2011.” Keynote speakers include Eric Wachsman and Clifton Barry. Several Workshops are planned, and there will be events that feature career development, funding opportunities, and education. See our Website www.marmacs.org for more information or email us at contacts@marmacs.org
Wednesday, June 8	Chemical Consultants Network - Annual Open Forum Al Fresco Buffet, Spouses Welcome!!! Cynwyd Club, 332 Trevor Lane, Bala Cynwyd, PA. Networking, 5:30 PM; Buffet, 6:15 PM; Forum and Business Session, 7:30 PM. To make or cancel a dinner reservation, e-mail CCNReservations@aol.com or call the ACS office at 215-382-1589. For more information see www.chemconsultants.org.). Fee, including food and beverages (wine, beer & sodas), is \$25 for individuals or \$40 per couple. Reservation deadline is Thursday, June 2.

“Chemistry Works !!”



Saturday May 7, 1–2:30
Plainsboro Public Library

Short Talks & Demos by Scientists from
Industry and Government:

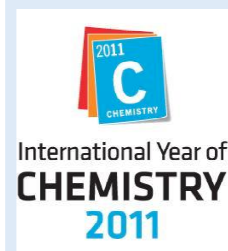
Energy – Allen Jones

Medicine – Barbara Ameer

Water – Jini Gilchrist, T. O’Conner

Food – Randy Weintraub

*Students (grade 7 & up): Register at
the library by May 3rd*



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



ACS Webinars™
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ACS Webinars™ is a weekly online event. Each webinar is 60 minutes in length, comprising a short presentation followed by Q&A with the speaker. The live webinars are held on Thursdays from 2-3pm ET. Recordings of the webinars are available online and upcoming events are posted at <http://acswebinars.org/events>. Some upcoming webinars:

Tuesday May 3, 2011 | 2pm-3pm ET

“Ten Commandments for Being a Successful Scientist”: Listen to Professor Darren Griffin, of the University of Kent, UK, as he reveals ten essential keys to proactively create that opportunity and define your scientific success!

Thursday May 5, 2011 | 2pm-3pm ET

“Creative Problem Solving in Chemical Research”: In the day-to-day work environments of chemists and others, it is desirable to be able to solve problems creatively. Join our speaker, Dr. William Mattson of Randolph College as he engages you in an interactive presentation focused on providing insights that will strengthen and improve your creative problem solving abilities.

Thursday May 19, 2011 | 2-3 p.m. ET

“Turning on the Light Bulb – Idea Generation and Idea Evaluation”: Join us to learn some simple techniques you can use to increase the generation and evaluation of actionable ideas! Speakers: Dr. Nick Conti, Quest Diagnostics and Ms. Lynn Leger, GreenCentre Canada.

Thursday May 26, 2011 | 2pm-3pm ET

“The Chemistry of Cheese and Why We Love It”: Join our speaker, Dr. Michael Tunick, with the USDA Agricultural Research Service, as he discusses the art and science of cheese making and enjoy a discussion that stimulates your taste buds, tickles your nose, and leaves your mouth watering.



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