

# ALI "QUOTES"

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THE NEWSLETTER OF THE PRINCETON ACS

October/November

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

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#### **Upcoming Dinner Meetings**

#### Joint Meeting of the Princeton & Trenton ACS Sections

Wednesday, October 12, 2011

our guest speaker will be

#### Ronald White, Ph.D.

President, White Global Pharma Consultants, LLC

#### "New Ways to Apply Mass Spectrometry to Drug Discovery and Development"

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

#### Abstract

Discovery and development of new medicines primarily involves the biological and medical sciences, but in the beginning of the discovery process medicinal chemistry, in the form of synthesis and Structure-Activity Relationships, plays a central role. Of course, this is stating the obvious, since all new small-molecule drug candidates are chemical compounds. Not so obviously, chemistry continues to be important as we progress through discovery and clinical development, in the form of bioanalysis, impurity identification, and metabolite identification, all three of which are essentially chemical in nature. In contrast to the discovery lead optimization phase, in which NMR is the single most important instrumental technique for medicinal chemists, these later chemical activities are mostly accomplished by mass spectrometry. The power of recent advances in mass spectrometer instrumentation (e.g. highresolution MS; comprehensive ion recording) and, equally importantly, softwarebased post-acquisition data mining (e.g. mass-defect filtering; accurate-mass baseline subtraction) is just starting to be appreciated. In this talk we will concentrate on the problem of rapid and reliable metabolite identification in both the discovery and clinical arenas and illustrate how cutting-edge MS technology facilitates this process. Medicinal chemists, analytical chemists and drug metabolism scientists have a learning curve and some traditional boundaries between disciplines to overcome before the full benefit of applying these new techniques to old problems can be realized.

#### **Biography**

Ronald E. White, Ph.D. is President of White Global Pharma Consultants, LLC, which is based in Cranbury, NJ and provides advice and problem-solving services for pharmaceutical R&D internationally. He received a Ph.D. in Organic Chemistry from the University of Wisconsin in 1974 and completed post-doctoral training in the

biochemistry of the cytochrome P450 enzymes at the University of Michigan. Dr. White began his career as a faculty member of the University of Connecticut School of Medicine but made the switch to the pharmaceutical industry in 1987 as a Research Group Leader at Bristol-Myers Squibb in Princeton, NJ. Later he moved to the Schering-Plough Research Institute in Kenilworth NJ, where he became Vice-President of Drug Metabolism and Pharmacokinetics. He is a past member of the Pharmacology Study Section of the National Institutes of Health and of the Drug Metabolism Technical Group of Pharmaceutical Research Manufacturers of America and was Chair of Gordon Research Conference on Metabolism. He is presently a member of the Editorial Board of the journal Drug Metabolism and Disposition and Adjunct Professor of Chemical Biology in the Rutgers University School of Pharmacy. Dr. White has lectured and published extensively in the areas of drug metabolizing enzymes, pharmacokinetics and drug discovery and is the holder of five United States patents.

#### 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 Rd, 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 October 6 to make reservations. Reservations must be canceled no later than October 11 to avoid being billed for the dinner.

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#### Wednesday, November 16, 2011

our guest speaker will be

#### **Professor Edward C. Taylor**

Department of Chemistry, Princeton University

## "From Butterfly Wings to Cancer - the Discovery of Alimta"

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

#### **Biography**

Prof. Edward C. Taylor was born in Springfield, Massachusetts, on August 3, 1923. He received both his B.A. (1946) and his Ph.D. (1949) degrees from Cornell University. He was a Merck Postdoctoral Fellow (1949-50) of the National Academy of Sciences in Zürich, Switzerland, where he studied with Leopold Ruzicka, and then the du Pont Postdoctoral Fellow at the University of Illinois (1950-51). He joined the faculty at the University of Illinois in 1951, and then moved to Princeton University in 1954. In 1966 he was appointed A. Barton Hepburn Professor of Organic Chemistry, a position he held until July 1997, when he was appointed A. Barton Hepburn Professor of Organic Chemistry Emeritus and Senior Research Scientist at Princeton. He served as Chairman of the department from 1973 until 1979. He was awarded an Hon. D.Sc. degree from Hamilton College in 1968, the Distinguished Hamilton Award in 1978, and the Hamilton Distinguished Alumni Award in the fall of 1990.

He holds numerous awards and honors. In 1968 he joined Dr. Arnold Weissberger as co-editor of the Wiley-Interscience series The Chemistry Heterocyclic Compounds (Taylor has been the sole editor since Dr. Weissberger's death in 1984), and of the series General Heterocyclic Chemistry. Professor Taylor is the author of over 450 scientific papers and heterocyclic 50 U.S. patents on chemistry, organothallium chemistry, natural product chemistry, medicinal chemistry and synthetic methodology.

He invented the cancer drug Alimta, in collaboration with the pharmaceutical company Eli Lilly. ALIMTA® was the first chemotherapy drug to be approved by the Food and Drug Administration (FDA) for the treatment of patients with malignant pleural mesothelioma.

#### 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 Rd, 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 November 10 to make reservations. Reservations must be canceled no later than November 15 to avoid being billed for the dinner.

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#### From the Chair ...

by Randy Weintraub, PACS 2011 Chair

Great Time to Get Involved and Volunteer! The upcoming Princeton American Chemical Society (PACS) events are so inviting! As we enter the last quarter of the International Year of Chemistry, here are great opportunities to get involved and have fun and valuable experiences in PACS educational and community outreach events:

National Chemistry Week PACS Celebration Event on October 22nd, Princeton University (Contact Allen Jones)

Chemagination 2012 Kick-off Information Session on October 25<sup>th</sup>, Princeton University (Contact Barbara Ameer)

Chemistry Works! on November 12th, West Windsor Library (Contact Randy Weintraub)

Please read within this issue of AliQuotes and the PACS website about these events and contact the event coordinators to get involved and enjoy!

The upcoming monthly lecture-dinner meetings through the end of the year are also 'not-to-miss'. The October 12th meeting's guest speaker is the highly respected and accomplished leader in drug metabolism and discovery, Ronald White, PhD. At the November 16th meeting, Princeton University Chemistry's preeminent Professor Edward Taylor will grace us with a guest presentation. December 7th meeting is the PACS Holiday Dinner and the our guest speaker will be the incoming PACS 2012 Chair, Princeton University Chemistry's, Professor Steven Bernasek.

We received many positive comments about our annual "Career Night -- Career Paths in Chemistry and Related Sciences" meeting held on September21st at the Friend Center at Princeton University. A good turnout of students, PACS members and others listened and responded to the presentations from Barbara Ameer, Lourdes Frau, Michael Reily, Dan Safarpour and Randy Weintraub. Each presenter's unique and colorful story echoed some common themes and advice: be curious and life-long learner, be disciplined in your studies and work, be creative, be optimistic and persistent, be a good communicator and team player, and pursue your passions.

Fittingly, at the Career Night meeting we also recognized and celebrated the PACS 50 or 60 year ACS members, John Matsen, John Sheats, Philip Cruickshank, Charles Muldrow, Jr. and PACS 2011 Outstanding High School Teacher of the Year, David Laws.

A note of continued thanks goes to the PACS Executive Committee members and Program and Event Coordinators. They keep PACS Truckin'!

Thanks for reading, Randy





#### Volunteers Needed for National Chemistry Week

by Allen Jones, NCW Chair

The Princeton Section of the American Chemical Society will be holding its National Chemistry Week Celebration 2011 on Friday evening, October 21 from 7pm -9 pm. It will be held at Princeton University, Frick Laboratory, located on Washington Road, Princeton NJ.

This year's theme is "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: organization, design of experiments, running experiments, hosting, set-up/take down, communications and other tasks. Please email Allen Jones, National Chemistry Week Chair, at <a href="mailto:allen.n.jones@verizon.net">allen.n.jones@verizon.net</a> or call evenings at 732-422-1443 to help with planning and running the event.

#### 50 and 60-Year Members Honored

Four of our members attained 50- or 60-year status with the ACS this year. They are:

Dr Philip Cruickshank – 60 years Dr John M Matsen – 50 years Dr Charles Muldrow, Jr. – 60 years Dr John Sheats – 50 years

John Sheats and Charles Muldrow were able to attend our September 21 meeting to be our guests for dinner and receive their certificates of recognition. All of our honorees were invited to submit some thoughts on chemistry and careers for the AliQuotes. The first of these is featured below.

Congratulations to our honorees from the Executive Committee of PACS!



Photo, from left, Randy Weintraub 2011 PACS Chair, with recipients Charles Muldrow and John Sheats

### Staying Employed in Chemistry

By Charles Muldrow, PhD

ow do you plan to keep getting jobs past the age of 50? Some practices starting early in your career can greatly help.

Observe everything related to your project in great detail. Use several sources and question all information even from sources that are usually reliable. Keep up with new developments in your field if you are

promoted to a supervisory position; remember that there are many more senior technical jobs than managerial ones.

Success will be more likely if you also learn the basics in related areas so that you can understand activities of your colleagues in other branches of research, development and production. While mostly a synthetic chemist, I found that it helped to know more about chemical analysis, physics, and engineering. For example, my knowledge of polymer crystallization led me to identify a less usual form that occurred in a new plant and hurt quality until we solved the problem.

It was also helpful to observe details of what testers could find out, what salesmen could sell, and what top management considered profitable. While I would make tentative diagnosis of a plant problem, I stayed open to new data and revision of direction.

By keeping a wide focus, I was able to continue my research on polymer development and processes as I switched among companies from synthetic rubber to plastics, fibers, coatings, inks, sealants, roofing materials and golf ball covers.

While still employed, you can build skills for advancement in your current position or future jobs. Use training such as Toastmasters to improve your communication. Managerial or psychological training can help smooth your interaction with managers and colleagues. Between jobs you can use technical meetings to keep up as well as find job leads.

Finally, don't get discouraged in your job hunt. Persist in learning about potential employers and trying new approaches until you find your next employment.

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## 2011 OUTSTANDING HIGH SCHOOL CHEMISTRY TEACHER AWARD

The Trenton and Princeton ACS sections have been jointly sponsoring the Outstanding High School Chemistry Teacher Award since 2006. The purpose of the award is to recognize the work and dedication of chemistry teachers in area schools.

Early in the year, educators from area schools were asked to nominate teachers they felt were worthy of special recognition. The selection criteria were teaching quality, ability to challenge and inspire students, extracurricular work in chemistry, a

willingness to keep up-to-date in the field, and evidence of leadership and/or active involvement within the profession.

We are pleased to announce that Dr David Laws of the Lawrenceville School is this year's award recipient. A plaque was presented to Dr. Laws at our September 23<sup>rd</sup> meeting.



David Laws (center) receiving the award from Randy Weintraub, PACS Chair, and Louise Lawter, Award Chair

David Laws has been teaching at The Lawrenceville School, Lawrenceville, NJ since 2000 and has been Assistant Chair of the Science Department since 2005. He Received his Ph.D. in Chemistry from University of California, Berkeley in 2000 and B.S. in Chemistry, University of Illinois, Urbana in 1995

He has published 16 papers in various scientific journals and coauthored/ illustrated "ChemQuizzes" (W.W. Norton), an interactive CD-ROM that helps students understand the fundamental concepts of general chemistry. In addition to his focus on creating a dynamic learning environment for chemistry in his classroom, he also coaches students to compete in Science Olympiad.

What best describes why he is this year's recipient are quotes from his nomination letters: ... "David's strength is his ability to explain the complex ideas of Chemistry in terms that all students understand." ... "They (his students) come to love science and are able to learn really impressive ideas on their own,"...."Dave is a committed scientist educator

who has inspired hundreds of students to learn chemistry".

Congratulations from the Executive Committees of the Trenton and Princeton ACS sections!

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# Coming Soon Chemagination Contest Kickoff Event!

By Barbara Ameer, Chemagination Coordinator

The Chemagination contest is in its tenth year. It was originally created by the American Chemical Society as an optional educational outreach activity for local sections of the professional society. The Princeton local section is sponsoring the 2012 Chemagination Contest, with the endorsement of the Trenton local section. The Fall 2011 information session, on October 25<sup>th</sup>, is reaching beyond the Princeton and Trenton areas to science teachers throughout NJ who want to learn about the contest and are considering bringing it to their classrooms or after-school clubs.

Help spread the word to science educators about this novel contest!

EVENT NAME: Chemagination Contest Kickoff Event

DATE: Tuesday, October 25, 2011 5:30 – 7:00pm, with short presentations at 6:00pm and 7:15pm

EVENT TYPE: Outreach Event of Princeton American Chemical Society, Princeton

LOCATION: Frick Laboratory, Taylor Commons, Princeton University, Princeton NJ 08544

INTENDED FOR: AP or Honors Chemistry Teachers and related science educators

WEBSITE: http://www.princeton.edu/~pacs/

DETAILS: 10th annual Chemagination Contest starts with this info session for HS science teachers & supervisors.

Teams of HS students are challenged to imagine inventions using chemistry that will create breakthroughs in our lives.

Local contest at Princeton University: Apr 14, 2012 (tentative date), Regional contest (during MARM) at University of Maryland Baltimore campus: June 2, 2012

EMAIL Barbara Ameer, 2012 PACS Chemagination Coordinator, at <u>b4chemistry@gmail.com</u> to reserve a place at this event.

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## 242nd Fall ACS National Meeting, Denver, CO Highlights of Governance Actions/Reports

Petitions For Action - Petition on Position Statements
The Council VOTED to approve the *Petition on Position Statements*. The petition assures that the Board of Directors has sole authority in issuing position statements that establish policy for the full Society; and that Society bodies other than the Board may issue statements on issues that fall solely in their jurisdiction so long as they do not impair other Society bodies' ability to do the same. The Board of Directors will vote within 90 days on whether to ratify the approved petition.

#### **Meeting Registration Report**

As of September 1, 2011, the ACS fall national meeting had attracted 10,076 registrants. Totals in select categories are as follows: Regular attendees 6,088; Students 2,376; Guests 218; Exhibit Only 394; and Exhibitors 1,000.

#### Membership Activity

Despite the challenging economy and continued high unemployment, the Society's overall membership number remains stable at near 163,000. The number of new undergraduate Student Members is growing rapidly, and as of July 31 the total stands at 15,702.

#### Special Discussion Item - Laboratory Safety

ACS President Nancy Jackson presented and moderated a discussion on how ACS can best cultivate a culture of safety in US universities and colleges. At the 2011 ACS national meeting in Anaheim, the Committee on Chemical Safety launched an effort to identify ways to assist academia in strengthening and building strong safety cultures. Devastating incidents in academic laboratories and observations by many that graduates do not have strong safety skills have elevated concerns about the safety culture in academia. Following Dr. Jackson's presentation, Councilors engaged in robust discussion on this very timely topic, with numerous suggestions by 42 different Councilors. (Contact safety@acs.org for questions/comments about laboratory safety.)

Changes in Technical Divisions – Div. of Energy and Fuels The Council VOTED to grant full division status to the previously probationary *Division of Catalysis Science and Technology*, and to approve the proposed bylaws of this division. Also, Council VOTED 53% - 47% to dissolve the Division of Petroleum Chemistry and to combine its assets and members with those of the Division of Fuel Chemistry under the new name of the *Division of Energy and Fuels*, effective December 31, 2011

#### Employment, Economic, and Professional Activities

ACS has created new programs to assist unemployed members and new resources for all members, from students to seasoned professionals. The first ever fully integrated onsite and virtual career fair in Denver offered job seekers and virtual participants via webcam the opportunity to interact with each other and to connect with prospective employers and programs to sharpen their career skills. The number of employers was up from Anaheim.

The Presidential Task Force on Innovation and Job Creation released their report, entitled "Innovation, Chemistry & Jobs." The report contained four recommendations to stimulate innovation and job creation in the US chemical industry. The Committee on Economic and Professional Affairs (CEPA) and Corporation Associates co-sponsored a new program funding request to establish an entrepreneurial initiative, which would implement two of the four recommendations. First, it establishes an educational program to guide budding entrepreneurs through the creation of new chemical businesses. Second, it supports the formation of new chemical companies by providing access to the unparalleled informational resources of the Society, as well as other professional resources. The initiative was approved by the Board, and will be implemented early next year.

another exciting initiative. the Chemical Entrepreneurship Council (CEC) has assembled. The group consists of the Women Chemists Committee, the Committee on Science, the Division of Small Chemical Businesses, the Division of Business Development and Management, the National Collegiate Inventors and the Innovators Alliance. This self-organized working group is concerned with providing the resources and skills necessary for chemists to translate research into innovations that can become commercial products. The outputs for the CEC decided at the Denver meeting to include education and training, a roadmap to inventory resources, and outreach for member engagement

#### **Attention Job Seekers!**

Remember to check our website often for updated job postings and career information.

www.princeton.edu/~pacs

Open positions have just been posted for Liquid Light.

http://www.princeton.edu/~pacs/local\_job\_postings.ht m

#### Inspire the Next Generation of Scientists

**During IYC** A new ACS video series — aptly named *Spellbound* — tells the stories of eight chemists whose childhood curiosity about everyday things helped them launch careers in laboratories, win Nobel Prizes and make other notable achievements. Free and available at www.acs.org/Spellbound, www.youtube.com/ACSVideoTheater, on iTunes, and on DVD by request (m\_bernstein@acs.org), the videos are suitable for classrooms and other audiences of scientists and non-scientists. Watch them, share them and encourage educators, museums, science centers, news organizations and others to embed links on their websites. *Spellbound* is a great way to celebrate IYC!

#### SS EVENTS & NOTICES SS

#### If Grass is Green Why Isn't Blood Green? - Wednesday, October 19, 2011

Professor Martin Stillman, The University of Western Ontario, will speak on "Theoretical and Spectroscopic Advances in the Interpretation of the Electronic Spectra of Porphyrins and Phthalocyanins". This event is being presented by The ACS Philadelphia Section's Younger Chemist Committee in partnership with Drexel University's Graduate Student Association (ACS) in honor of National Chemistry Week during the International Year of Chemistry. Location: Drexel University, Bossone Center, Philadelphia, PA 5:00 pm to 8:00 pm.

#### Chemical Consultants Network - Wednesday, November 9, 2011

Nail it! Become the Speaker you want to be! Speaker: Tim Maloy. Tim has been providing presentation coaching for over 15 years, helping folks feel comfortable with themselves in front of others, which is key to a successful delivery. 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.

#### Chemical Heritage Foundation - Joseph Priestly Society

#### Tuesday, October 20, 2011

Judith Giordan, Chair, VentureWell, and Senior Advisor, National Collegiate Inventors and Innovator Alliance (NCIIA)

#### Thursday, November 10, 2011

R. P. "Skip" Volante, Vice President and Global Leader, Process Chemistry, Merck Research Laboratories. Time: 11:00 am to 2:00 pm. To register or for more information, visit <a href="www.chemheritage.org/visit/events/joseph-priestley-society/index.aspx">www.chemheritage.org/visit/events/joseph-priestley-society/index.aspx</a> or contact Laura Naden, advancement and events administrator, at 215.873.8276 or <a href="mailto:lnaden@chemheritage.org">lnaden@chemheritage.org</a>.

#### Frontiers of Discovery: AWIS at 40 - October 20, 2011 - October 21, 2011

Time & Location: Thursday, 5:30 pm to 7:30 pm (Career Panel); Friday, 8:00 am to 5:00 pm Location: Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106. See <a href="https://www.chemheritage.org/visit/events/conferences/2011-women-in-science.aspx">www.chemheritage.org/visit/events/conferences/2011-women-in-science.aspx</a> to register and for more information.

#### Second Career Workshop - Presentations and Communication Skills, Friday, October 21, 2011

Time & Location: 8:30 am at the MetroPlex Center, La Salle University Annex, Plymouth Meeting, PA. This free event is a service of the American Chemical Society - Philadelphia Section and the Career Services Committee. We will have a series of seminar speakers talking on the general topic of "Presentations and Communication Skills". For more information and to register see <a href="http://acsphilly-careerservices.eventbrite.com/">http://acsphilly-careerservices.eventbrite.com/</a> or contact J.P. Northrop at <a href="mailto:john.northrop@anton-paar.com">john.northrop@anton-paar.com</a>.

#### Princeton ACS December Meeting: Wednesday, December 7, 2011.

Our guest speaker will be PACS 2012 Chair, Professor Steven Bernasek, Princeton University. Location & Time: Frick Laboratory, Princeton University. Mixer 5:30 pm in Taylor Commons, presentation 6:30 pm in Taylor Auditorium followed by dinner in Taylor Commons.

#### ACS Webinars<sup>TM</sup>

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 <a href="http://acswebinars.org/events">http://acswebinars.org/events</a>.

**Tuesday, October 4, 2011**, 2pm-3pm EST - *The Road Less Traveled – Alternative Careers for PhD Scientists*. Join Dr. Steve Carlo, TreMonti Consulting LLC, Co and Bureau of Engraving and Printing, as he describes how traditional skills are more easily applied to alternative careers than you think.

**Thursday October 6, 2011**, 2pm-3pm EST- *The Future of R&D Outsourcing*. R&D outsourcing is a widespread "norm" for both large and small companies. In the "new norm", how will companies fare? Is more outsourcing expected? Speakers: Dr. Bruce Molino and Mr. Christopher Conway, Albany Molecular Research, Inc.

**Thursday, October 13,** 2pm-3pm EST - *Success, Bottlenecks, and the Future of Antimicrobial Drug Discovery.* The Infectious Disease Society of America is challenging the scientific community, policy makers and regulatory agencies to work together to "create a sustainable antibiotic R&D infrastructure" to identify ten new systemic antibiotics by 2020. Speaker: Dr. Molly Schmid, Keck Graduate Institute of Applied Life Sciences

**Thursday, October 20, 2011,** 2pm-3pm EST - The "Art" in Startups: Getting Funded. Get valuable inside perspectives on what investors look for and learn the keys to building a high growth venture! Speakers: Joseph Steig, Venture Well and Dr. Steve Flaim, San Diego Tech Coast Angels.

**Thursday, October 27,** 2011, 2pm-3pm EST - *Making Money Out of Chemistry: The Science in Paper Money.* Speakers will discuss why constant research and redesign is needed to protect the dollar and keep counterfeiting low. Speakers: Dr. Steve Carlo, TreMonti Consulting LLC, Co and Bureau of Engraving and Printing and Ross Morres, Bureau of Engraving and Printing



Princeton Section of the ACS Department of Chemistry Princeton University Princeton, NJ 08544-1009

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