

## The Department of Chemistry welcomes Dr. Barry M. Trost for the 2009 Daniel Swern Memorial Lecture



Dr. Barry M. Trost

The third annual Daniel Swern Memorial Lecture will be held **April 13, 2009 at 4:00 p.m.** in Beury Hall. The lecture will feature Dr. Barry M. Trost, Tamaki Professor of Humanities and Sciences at Stanford University.

Dr. Trost was born in Philadelphia in 1941 and earned his BA in Chemistry from the University of Pennsylvania and his PhD in Chemistry just three years later at the Massachusetts Institute of Technology. He was a professor at the University of Wisconsin for nearly 20 years before moving to Stanford University, where he is currently Tamaki Professor of Humanities and Sciences. His wide-ranging research in organic synthesis is recognized for its extraordinarily novel methodologies. His pioneering work in bond selectivity led to such discoveries as the Trost asymmetric allylic alkylation, Tsuji Trost reaction and the Trost ligand.

Professor Trost's talk, *On the Invention of New Synthetic Methods and Their Impact On Synthetic Strategy to Bioactive Targets*, will cover novel reactions that are more selective and more atom economic. Ruthenium and palladium catalyzed processes will be explored as more efficient synthetic strategies to complex bioactive natural products.

The Daniel Swern Memorial lecture is held yearly in honor of Daniel Swern, a former professor in the Department of Chemistry. Dr. Swern is most well-known for his discovery of the Swern oxidation process. Past lecturers include Dr. Gregory Verdine and Dr. Bruce Roth.

This event is free and open to the public. The lecture will be followed by a reception, sponsored by Wyeth Research, in Beury Hall at 5:00 p.m.

For more information visit [www.temple.edu/cst](http://www.temple.edu/cst).



Dr. Daniel Swern, 1916 – 1982

## Department of Chemistry students' research stands out at Philadelphia ACS poster session

The Chemistry Department hosted the Philadelphia Section of the American Chemical Society (ACS) Ninth Annual Graduate Student and Fourth Annual Undergraduate Poster Session on January 22, 2009.

Graduate and undergraduate students from 13 area colleges and universities as well as students from two high schools submitted posters in the areas of Chemistry, Biochemistry and Chemical Engineering. Entries were judged by representatives from local universities and industries, including St. Joseph's, Villanova, Rohm and Haas and DuPont.

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## News & Updates

### • Beury Hall Ribbon Cutting Ceremony celebrates \$25 million renovation project

The Departments of Chemistry and Earth and Environmental Science celebrated the completion of the \$25 million renovation project with a ribbon cutting ceremony on March 5, 2009. Temple President Ann Weaver Hart and Dean Hai-Lung Dai made remarks before cutting the ribbon in front of several hundred students, alumni and faculty. Tours of the new facility showcased the 5-year project which generated new specialized instructional classrooms and state of the art research labs to advance current science and technology research.

### • The Department of Chemistry celebrates CST's 10th anniversary

The College of Science and Technology's 10th anniversary celebration feature lectures, demonstrations and events from each of the six departments, culminating in the 10th Anniversary Celebration concert on November 23, 2008 at the Kimmel Center.

The Department of Chemistry hosted *Light Interaction with Matter: the New Frontier*, an interdisciplinary Symposium, on November 19. Temple faculty were joined by innovative colleagues from all over the country in presenting their cutting-edge research.

The celebration continued as Greg Moore of Moore Brothers Wine Company and Professor David Dalton led alumni and friends in the Chemistry of Wine and Wine Tasting, a wine tasting and lecture based upon the popular undergraduate Chemistry course, "Chemistry of Wine".

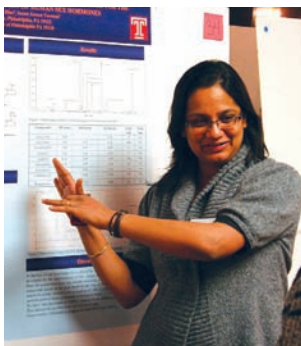
The innovative "Chemistry of Wine" course was developed by Chemistry Professors Robert Levis and David Dalton, who were profiled on the front page of the Health and Science section of the December 15 edition of the *Philadelphia Inquirer*.

For full text of the article, visit <http://www.temple.edu/cst>.



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## ACS posters continued:



Temple students swept the graduate poster awards, with all four graduate student awards going to Temple. Graduate student winners included; Deepti Varma, "Development of a High-performance Liquid Chromatography Method for the Simultaneous Determination of Human Sex Hormones" (advisor Susan Jansen Varnum); John Brady, "Development of an Atmospheric Pressure Ionization Time of Flight Mass Spec-

trometer for Solution and Gas Phase Control of Macromolecules" (advisor Robert Levis); Andrii Buvailo, "Synthesis of SnO<sub>2</sub>-based Nanomaterials Doped with Pd Additives for Hydrogen Sensor Applications" (advisor Eric Borguet); and Goutham Kodali, "Excited state electronic properties of 8VA (8-vinyladenosine): An experimental and theoretical study" (advisor Robert Stanley). Undergraduate Jennifer Alleva also received a best poster award for her entry on "Solid-Phase Synthesis of Functionalized Bis-Peptides" (advisor Chris Schafmeister).

## Research News

### • **Biology and Chemistry part of NSF STEM education study**

Jacqueline Tanaka, associate professor of biology, and John Mitchel, general chemistry laboratory coordinator, are co-principal investigators on a new National Science Foundation grant. The project seeks to understand why some students who start out as Science, Technology, Engineering and Math (STEM) majors change majors, whether it's after one course or after completing almost all of the work.

### • **Chemistry professor Eric Borguet receives Benjamin Franklin Technology Center grants**

Eric Borguet received a grant from the Benjamin Franklin Technology Center for the project "Array Piezoelectric Sensors." The award provides \$64,434 for the period September 1, 2008 through June 30, 2009. He also received funding for the project "Nanoscale Cellular Probes." The award provides \$198,000 for the period September 1, 2008 through June 30, 2009.

### • **Christian Schafmeister receives DTRA grant**

Department of Chemistry professor Christian Schafmeister obtained a \$1.5 million research grant award from the Defense Threat Reduction Agency (DTRA) for the project entitled: "Molecular Lego Based Catalysis."

### • **Wayland obtains DOE funding**

Chemistry's Bradford Wayland obtained U.S. Department of Energy (DOE) funding for his project "Catalytic Hydrogenation of Carbon Monoxide and Hydrocarbon Oxidation" to develop strategies, catalyst materials and media for the activation of carbon monoxide and hydrocarbons for use with fuels and chemical feedstock. This award provides \$130,000 for the next year to focus on new opportunities to utilize carbon monoxide produced from both biomass and coal in the formation of fuels and organic materials.

**The CST Alumni Office wants to hear from you! Let us know what you've been up to since your days at Temple. Post news, achievements and updates at <http://www.temple.edu/cst/alumni/classnotes.html> or email us at [cst.alumni@temple.edu](mailto:cst.alumni@temple.edu).**

## Alumni Spotlight

### **Sean E. Keuleyan (May 2008)**

BS Chemistry

(2nd concentration: Film and Media Arts)

#### **What did you do after graduating from Temple?**

*I am attending graduate school at the University of Chicago.*

#### **What degree are you pursuing?**

PhD Physical Chemistry

#### **How has what you've learned at Temple helped you in your current career?**

*Temple and the people there completely built my current career. I came to Temple in hopes of escaping a dead-end job and doing something I really enjoy. While in the FMA program, I realized that there was much more offered there that I found interesting. It was specifically though the people there that enabled me to pursue a graduate program. The faculty in the Department of Chemistry, specifically Prof. Eric Borguet, recognized and ran away with my interest in the subject and helped me develop it into something I could pursue further.*

#### **What was your favorite thing about Temple?**

*Outside of friends and coworkers, I often miss little things like the Crepe truck on Norris St. (all the food options for that matter); Mike, the Ukrainian vendor who owned the "Bagel Hut" on 13th and Berks - who I saw more often than anyone (due to an unrelenting thirst for coffee); and in hindsight, the proximity to downtown Philly. I also miss the new Tech Center, for the access I had to media software in the video lab.*

#### **What are your future plans?**

*Right now I'm working toward a PhD so I can continue a career in academics and research.*

#### **Thoughts on Temple?**

*Coming to Temple was probably the best decision I've made, to this day, in my entire life. I just wish I had more time to take better advantage of everything that was offered there.*



## Support Chemistry

Make your personal best gift to support the students in the Department of Chemistry. Your generous donation can help provide scholarships and aid to students in need. Please send your gift in the enclosed envelope and help support our Chemistry Department.

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