



# Chemical Bond

Volume 53  
Number 8  
November, 2002

St. Louis Section, American Chemical Society



Staying Clean with Chemistry  
Theme of National Chemistry Week

## River City Welcomes ACS IPP

There will be a special General Meeting of the section on Thursday, November 14, with guest Attila Pavlath, immediate past president of the American Chemical Society. Dr Pavlath will speak on *The Future of Chemistry and the ACS*.

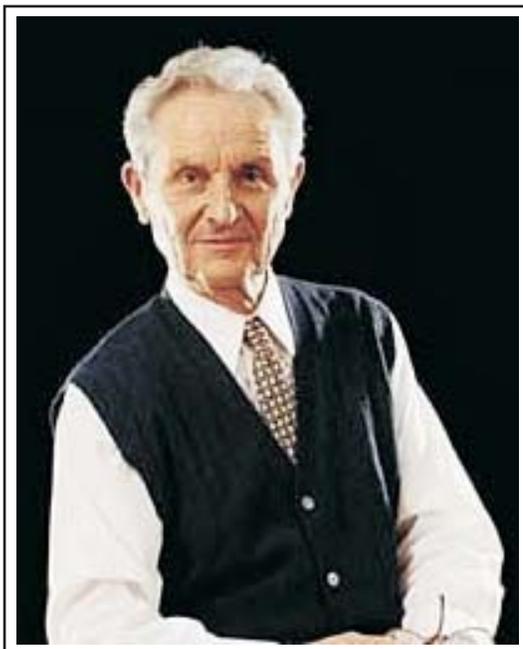
The agenda for the evening begins with a social hour at 5:30, followed at 6:30 by a working dinner, during which regular Board of Directors business will be transacted. Attila Pavlath's keynote address will begin at 7:30.

Dinner is open to all members and friends of the section. Reservations for dinner are due by Monday November 11, 2002 to Lisa Balbes (314-966-5298 [lisa@balbes.com](mailto:lisa@balbes.com)). The cost for dinner is \$15 per person.

Guests are invited to attend the keynote address at 7:30 even if they cannot attend the dinner/meeting.

The event will be held at a special location, not the usual UMSL Alumni

House venue: the "Center of Clayton" Meeting Room, 50 Gay Avenue, Clayton. From north- or southbound I-170, exit eastbound on Ladue. About 0.1 mile east, turn right on Gay Avenue to "Center of Clayton."



*Attila Pavlath, immediate past president of the American Chemical Society, will speak in St Louis at the Center of Clayton November 14.*

Pick up

Chemir/Polytech ad

from last month

p. 7

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# Meeting & Seminars

## *Board of Directors*

St. Louis Section-ACS Board of Directors meets the second Thursday of each month, usually at the Alumni Center, UM-St Louis. Meetings are open to all members, and all are encouraged to attend. Elected officers and chairs of major committees have the right to vote; others in attendance have voice but no vote.

**Date:** November 14  
Special program at "Center of Clayton" Conference Center  
**Social hour:** 5:30 pm  
**Dinner/board meeting:** 6:30 pm  
**General meeting:** 7:30 pm featuring ACS past president Attila Pavlath. See p. 2 for details.

**Future meetings:** Dec 12 (Continuity Dinner); Jan 9, 2003

## **ELEMENTAL ANALYSIS**

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## *Saint Louis University*

Seminars start at 3:30 pm in Room 204 Macelwane Hall, except as noted. Refreshments follow. For more information, contact Paul Jelliss, [jellissp@slu.edu](mailto:jellissp@slu.edu).

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October 30

**Dr Paul Duval**

University of Missouri-Columbia  
*To be announced*

.....  
SLU/Sigma-Aldrich Lecture Series

**Dr Chad A Mirkin**

Rathmann Professor of Chemistry  
and Director of the Northwestern  
University Institute for  
Nanotechnology  
For more details  
see [chemistry.slu.edu/Mirkin.html](http://chemistry.slu.edu/Mirkin.html)

November 12

Sigma-Aldrich Research  
& High Technology Center  
2909 Laclede

Reception 3:30 pm, lecture 4 pm

*Nanoparticle-Oligonucleotide*

*Conjugates: A New Frontier  
in Bidiagnostics*

Dinner at SLU Cupples House

November 13

Carlo Auditorium, Tegeler Hall,  
Saint Louis University

Reception 3 pm, lecture 3:30 pm

*Nanotechnology: Thinking Small  
or Small Thinking*

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***University of Missouri–  
St. Louis***

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Refreshments at 3:45; seminars at 4 pm in 451 Benton Hall. For further information, contact Prof. Chris Spilling, 314-516-5314, cspill@umsl.edu

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***Washington University***

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Seminars are in McMillen 311 at 4 pm unless otherwise noted. Coffee is available 20 minutes prior to the talk, and refreshments follow. For information, contact Thomas P Vaid, vaid@wuchem.wustl.edu

.....  
Thursday, Nov 7

**Prof Madeleine M Joullie**  
Dept of Chemistry  
University of Pennsylvania  
*Total Synthesis of Ustiloxin D*

.....  
Tuesday, Nov 12

**Prof Chad Mirkin**  
Northwestern University  
*To be announced*

.....  
Thursday, Nov 14

**Prof R David Britt**  
Dept of Chemistry  
University of California–Davis  
*Recent Insights Into  
Photosynthetic Oxygen Evolution  
via Pulsed EPR/ENDOR*

.....  
Thursday, Nov 21

**Prof John P Marino**  
NIST Chemical Science  
and Technology Laboratory  
Biotechnology Division and  
U Maryland Biotechnology Inst  
*To be announced*

.....  
Monday, Nov 25

3907 South Bldg, Medical Campus  
**Prof Richard W Roberts**  
Cal Tech  
*To be announced*

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***Computational Chemistry  
Discussion Group***

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Meetings are held at Tripos, Inc., 1699 S. Hanley Road. Refreshments at 4:30, seminar at 5 pm. For more information, or if you would like to speak at a future meeting, contact Philippa Wolohan, 314-647-8837 x3201, pwolohan@tripos.com or Mitchell Polley x3358, mpolley@tripos.com

.....  
November 20

**Chris M W Ho, MD, PhD**  
CEO, Drug Design  
Methodologies, LLC  
*RACHEL: A New Tool for  
Structure-Based Lead Optimization*

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***Environmental  
Science/Technology  
Discussion Group***

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Contact Dr Kwok-Keung Au (“Amos”) for information: call 618-239-0547 or e-mail amos@bellevillelab.com

## GMOs: sex vs. science

by Jack Bornmann

For four years I lived in DeKalb, Illinois. When you drive through corn country, you always see signs for "DeKalb" and "Pioneer" seed corn. DeKalb corn was bred the old-fashioned way, by selective fer-

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## Letters & More

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tilization to produce hybrids of the desired quality. The old-fashioned way, *i.e.*, sex, is slow but inexpensive.

I moved to the St. Louis area, home of Monsanto and genetically modified plants. Though the results were the same, the methods were different. Monsanto didn't want to take as much time, so they used new science and lots of money instead.

The US chocolate industry prefers South American cacao beans because of their better flavor and easier shipment. Unfortunately the South American cacao trees are suffering from a blight that reduces bean production. American chocolate producers have had to buy beans from other tropical areas, where cacao plants are blight-resistant, but their beans' flavor just doesn't measure up.

Our chocolate industry and our federal government are therefore supporting hybrid cacao research. The first step is to study the genomes of the many varieties of cacao trees to find the gene or genes that make trees resistant to disease.

In phase two, scientists will use either modern genetic modification or old-fashioned cross-breeding to

introduce the disease-resistant genes into South American cacao trees. This stage will be done in Florida.

The seeds for the new disease resistant cacao tree will be planted in South America. Waiting for the new trees to mature will be a hardship for the cacao growers. Until then, some growers will farm an alternative crop; those who do will probably switch to coca. That's why the United States government is supporting this research. Our government hopes the farmers will switch back to cacao as soon as the new trees begin to produce.

By the way, cacao (kuh-KAY-oh or kuh-KAH-oh) is an evergreen with seeds that we call beans. It is used to produce cocoa butter, cocoa powder and chocolate. According to my food dictionary the cacao bean, also called cocoa bean, comes from the tree with the Latin name of *Theobroma cacao*.

One of my organic chemistry books listed theobromine as the "active ingredient" in chocolate. Chocoholics like myself recognize the honesty of the names Theobroma and theobromine; they mean "food of the gods."

My food dictionary uses cacao and cocoa interchangeably and does not explain the alternative spellings. Confusing, but not dangerous. Coca is something else altogether.

### NMR ANALYSIS

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## SLCC–Meramec’s Hauser wins Emerson Award

The Emerson Excellence in Teaching Awards recognize teachers throughout the St. Louis area for outstanding contributions to the community. Mike Hauser, Associate Professor of Chemistry at St. Louis Community College–Meramec was selected as this year’s winner. He will be recognized during an awards ceremony to take place at the Ritz-Carlton on November 17. Gray Rueppel, Chair of the Chemistry Department at SLCC–Meramec provided information for this article.

Mike Hauser received his BS in Chemistry in 1981 from the University of Missouri–St. Louis and his MS in Organic Chemistry also from UMSL in 1986.

Mike began his teaching career at Meramec in 1992 and was promoted to Associate Professor of Chemistry in 1998. Prior to Meramec, Mike taught as an adjunct professor at Lewis & Clark Community College in Godfrey, IL while working as a research chemist at Monsanto Company. Mike joined Monsanto Company in the Agricultural Division in 1981 and worked in both the process and residue areas. While at Monsanto

he received an Achievement Award in 1986.

Mike has been nominated twice by students to be listed in *Who’s Who Among America’s College Teachers*. The winner of the Emerson Award is selected by a committee of fellow faculty; this award is one of the highest honors a faculty member can receive. In addition to great classroom teaching, Mike has developed a series of science study skills seminars.

Mike is a member of ACS, 2YC3 (Two Year College Chemistry Committee) and he is active in the St. Louis Section. For several years he has chaired the Outstanding Junior Chemistry Student Award. Mike has also given demonstrations at area schools and has participated in the “Expanding Your Horizons in Math and Science” conference.

When school’s out, Mike enjoys orienteering with the St. Louis Orienteering Club. Sounds like Mike Hauser’s compass works pretty well.

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# Bond Briefs

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## *SLU Student Affiliate Commended*

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The ACS Student Affiliate at Saint Louis University won a "Commendable" Award for their activities during the 2001-2002 school year.

The students will receive a plaque and recognition at the National ACS Meeting in New Orleans next spring. Some of the activities for which the group was cited include a student/faculty picnic, tours of local chemical industry, participation in the Expo at National Chemistry Week, and establishment of a mentoring program with eighth grade students from Gateway Middle School. Alexa Serfis is the faculty advisor to the group.

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## *Flinn Again?*

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After a highly successful St Louis debut last summer, a Flinn Summer Chemistry Workshop may be making a return engagement next summer.

Hal Harris, who organized the effort to host a 2002 workshop, has asked the board for a commitment in principle to fund another one in 2003. At the October board meeting, the directors did just that, pending approval of our proposal by the Flinn Foundation.

The 2002 workshop served 38 high school teachers, including 36 from MO and IL, but stranded more than a few on the waiting list.

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## *So you want consistency?*

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Erratum: We've had confirmed reports that the cover caption on the October issue was in error. Therein, Michael Gross was cited as the winner of the 58th St Louis Award. The story on page 2 got it right: Michael Gross is the 58th *Midwest* Award winner.

We'd love to throw Emerson's quote in here, about consistency being the hobgoblin of little minds, but we don't know what a hobgoblin is.

## Chem Tech Award Call For Nominations

The deadline for nominations for the St Louis Chemical Technician Award has been extended until November 25. The award is presented by the St Louis section-ACS to a chemical technician in the St Louis area who has demonstrated a high degree of professionalism as a chemical technician. Criteria used to judge the award include technical skills, safety and housekeeping, relationship with co-workers, presentations, reliability, communication skills, contribution to team efforts, and additional professional activities. The award will consist of a plaque, a check for \$250, dinner for the awardee and a guest at the Chemical Progress Week Awards Night ceremony (April, 2003), and nomination for the National Chemical Technician Award.

A chemical technician is a person whose training includes successful completion of an Associate or Bachelor Degree in a chemistry

or chemistry-related curriculum, or the equivalent knowledge gained by experience. The primary work of a chemical technician is conducting experimentation and/or correlating information to assist in the solving of chemical problems. A nominee need not be a TECH Division Affiliate or ACS member to be eligible.

Send letters of nomination to or request further information from  
Sue Dudek  
Pharmacia Corp.  
mail code T2J  
800 N. Lindbergh Blvd.  
St Louis, MO 63167  
phone 314-694-2464  
fax 314-694-5216  
e-mail [susan.dudek@pharmacia.com](mailto:susan.dudek@pharmacia.com)

Nominations, including seconding letters, must not exceed six pages. The nominating letters should address each of the criteria above. A current work address, phone number and fax number must be provided for each nominee. Please include an e-mail address if one is available.



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