



Chemical Bond

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Number 2
February 2007

St. Louis Section, American Chemical Society



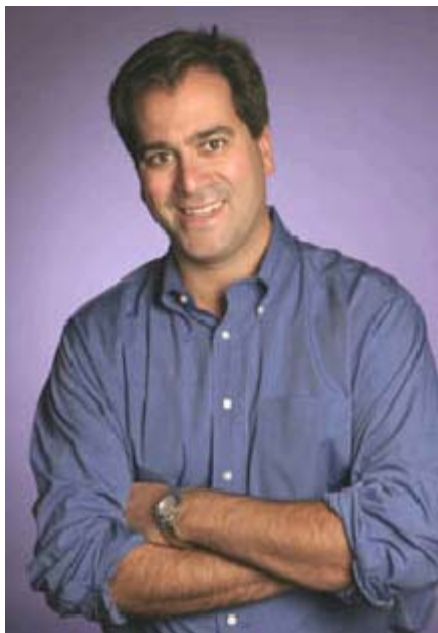
Organic chemistry
is the chemistry of
carbon compounds.
Biochemistry is the
study of carbon
compounds that
crawl.

- Mike Adams



**The Department of
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Announces



**The Tenth Annual
*Robert W. Murray***

Lecture

**Dr. Chad A.
Mirkin**

**George B. Rathmann
Professor of Chemistry
Northwestern University**

***Nanoparticles in
Diagnostics and
Therapeutics***

Monday, March 12, 2007

Lecture at 4:00 pm in 104 Stadler Hall.

Reception at 3:15 adjacent to the Lecture.

All are welcome!

The Robert W. Murray Lectureship was established in 1996 and inaugurated in 1998 as an endowed lecture series through the kind contributions of family, friends, former students, colleagues of Dr Murray, and alumni. The Lectureship honors the distinguished research career and the many contributions to the University of Missouri-St. Louis over more than 30 years of Professor Robert W. Murray, Curators' Professor Emeritus.

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Meeting & Seminars

Board of Directors

St. Louis Section—ACS Board of Directors meets on the second Thursday of each month, at the **Glen Echo Country Club** (map available on website). 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. If you want to attend the dinner, please contact Steve Kinsley (kinsley@wuchem.wustl.edu) at least one week prior to the meeting date. The cost of dinner is \$18. Members wishing to become active in section activities are welcomed to their first dinner for free, compliments of the section.

Date: February 8

Social hour: 5:30 pm

Dinner: 6:30 pm

Business Meeting will start during dinner.

Future meetings:

March 8, April 12, May 10

Chemical Progress Week

Monday, April 16
Awards Night Banquet

Tuesday, April 17
ADACIOM Luncheon

Friday, April 20
St. Louis Award Symposium

Saturday, April 21
St. Louis Award Banquet



University of Missouri- St. Louis

Seminars are held on Mondays at 4:00 pm in Room 451 Benton Hall.

March 5

Lou Messerle

University of Iowa

Dinuclear and Polynuclear Clusters of the Early Transition Metals and Lanthanides, and Applications to Biomedical Imaging

March 12

**Robert W. Murray Lecturer,
Chad Mirkin**

Northwestern University

Nanoparticles in Diagnostics and Therapeutics

March 19

Charles C. Chusuei

University of Missouri-Rolla

Probing Pt Nanoparticle Binding on Carbon Nanotube Fuel Cell Catalyst Surfaces

FRIDAY, March 23

Chris Orvig

University of British Columbia

Carbohydrate Conjugates in Medicinal Inorganic Chemistry

March 26

Spring Break - No Seminar

Receive e-mail reminders of upcoming ACS events and activities! To subscribe to the Reminders Listserve, send your e-mail address to Alexa Serfis at BARNOSKI@SLU.EDU.

Science Fair Call for Judges

Science Fair season is almost upon us, and so is another opportunity for you to encourage an understanding of good science by participating as a Science Fair judge. Members of the ACS St. Louis Section are needed as judges to evaluate chemistry projects for special awards at regional science fairs in the greater St. Louis area. High School and Junior High winners receive prizes from the section (science books and more), while all elementary school participants with chemistry related projects receive participation ribbons. Judging times for 2007 are as follows:

St. Charles-Lincoln County Regional Science and Engineering Fair

Monday, March 12th, 7:00 pm at St. Charles Community College

St. Charles/Lincoln County Science and Engineering Fair

Monday, March 12, 2007 at St. Charles Community College

Judging starts at 7:00pm.

Illinois Junior Academy of Science Region 12 Science Fair

Saturday, March 17th at SIU-Edwardsville

Judging starts at 9:00am and ends by 12:00pm. Awards at 12:30pm.

Greater St Louis Elementary Science Fair

Monday, May 7th, at Queeny Park

We will distribute participation ribbons to entrants with chemistry projects beginning at 6:00pm.

Greater St Louis Secondary Science Fair

Thursday, May 10th, at Queeny Park

Judging starts at 6:00pm

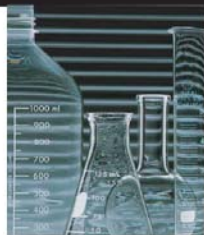
Interested in judging? Please contact John Kauffman

phone: (573) 356-1142

e-mail: kauffmanj@centurytel.net or John.Kauffman@fda.hhs.gov

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The Department of Chemistry and the Chemistry Club
announce the **31st Annual William J. Probst
Memorial Lecture**

Manya: A Living History of Marie Curie

Monday, March 19, 2007

7:30 pm, Meridian Ballroom, Morris University Center

Performance by
Ms. Susan Marie Frontczak, Storysmith

This program honors a preeminent woman of science: Madame Curie was the first European woman to earn a doctorate in the sciences; the first woman to receive a Nobel Prize; the first woman to teach at the Sorbonne; and the first person to receive a second Nobel Prize (a feat not to be repeated for another 50 years). Audience witnesses the origins of scientific discoveries we now take for granted. They re-live the remarkable collaboration between husband and wife, Pierre and Marie, companion scientists.



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The Tradition Continues

Part Four... by Lol Barton

This article continues the accounts of activities during the years in which the St. Louis Section was honored with the Award for Outstanding Performance. Following our success in 1986, when Phyllis Bennett served as the first woman chair in 34 years, we won the Outstanding Service Award in 1992 when Donna Friedman, Professor of Chemistry at Florissant Valley Community College and the third woman to chair the Section, was our leader. That same year: Section by-laws were amended to give Councilors voting rights on the Board of Directors; the Surface Science topical group was formed; a Recognition Night Banquet, when 50-year members and past-chairs are recognized, was held with more than 100 members in attendance; a special General Meeting was held at Ralston Purina in which the President-Elect Helen Free presented her program "Chemistry-Contributions to the Quality of Life"; Swaine Chen of O'Fallon Township High School won a gold medal for the United States at the International Chemistry Olympiad; the Section manned a booth at the St. Louis Science Center for 8 continuous days during National Science and Technology week; and Director Henry C. Godt was honored with a plaque at the Continuity Dinner for his long and dedicated service to the St. Louis Section.

In 1993, Sadiq S. Shah served as chair and we won the Award for Outstanding Service. This year featured major long-range planning by a committee staffed by Hal Harris, Brooke Hoey, Al Heininger, and Sadiq Shah. The year's activities included, for the first time, an expanded National Chemistry Week event held at the St. Louis Science Center. Having honored Henry Godt the previous year, the Section established the "St. Louis Section Distinguished Service Award", Henry Godt being the first such winner. Samir El-Antably was the second awardee. Another major event that year was a symposium on "Careers in Industry: From the Bench to the CEO," at Washington University. Other successful programs included: the "Battle of the Burettes" at UM-St. Louis; an "Industrial Exposition"; and live demonstrations with hands-on experiments for children at the St. Louis Science Center.

1996 saw Greg Wall almost single-handedly win the award for us with his outreach activities involving youngsters. Among the programs he spearheaded were: the Sub-4-a-Day, the Career Awareness Fair, the Nose Knows, and a very

Continued on page 8



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successful National Chemistry Week. Greg cut quite a figure as he strode up to receive the award at the meeting in Las Vegas in 1997, with his massive beard and large head of hair. (He had driven to the meeting!) Also during this year, Greg and Bob Friedman planned a number of activities for the following year that eventually resulted in another award.

Many of the new activities in 1997 accounted for our success that year. Bob Friedman from Monsanto was Section chair and among the new activities were: the St. Louis Section web page and the Computational Chemistry Discussion Group, both run by Lisa Balbes; the Women Chemists Committee run by Leah O'Brien; the Younger Chemists Committee run by Jennifer Weinberg; the Career Resources Program run by Gerry Hook; another major symposium run by Sadiq Shah, with Friedman's help, this time on "Science and Technology in the 21st Century"; sponsorship of *Science Friday* on Public Radio KWMU through the efforts of Karl Markl; the Minority Affairs subcommittee chaired by Marsha Gray; a program "Speak Out - the Chemical World" run by Greg Wall; and a new program called "Kids and Chemistry" run by Bijan Khazai. That year also saw a very successful National Chemistry Week Program run by Debbie Carter featuring the novel communication of our "Noble Neon", a car bearing ACS logos, etc., which was driven around the area and to promote chemistry during that week. Finally, 1997 included a very successful celebration of the 90th Anniversary of the St. Louis Section.

The St. Louis Section hosted the ACS Midwest Regional Meeting in 2000, Chris Spilling serving as General Chair and Keith Stine as Program Chair.



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Section chair Pauline Bellavance, Professor of Chemistry at Fontbonne University, hosted a social for new members at the regional meeting and saw her Ph.D advisor, Joyce Y. Corey of UM-St. Louis, receive the Midwest Award. Joyce was only the second woman to receive the award and the first to receive it outright; Gerty Cori had shared it with her husband, Carl, in 1945. In 2000, Chemical Progress Week was expanded to several events that ran throughout an entire month. Career Resources Activities became even more prominent in the Section and other events that helped us win the award were: the Minority Science Showcase; Kids and Chemistry - now an ongoing success; "Scientists at the Center"; a General Meeting with ACS Tour Speaker John Fortnum; and National Chemistry Week, which ended with a Chemistry Expo at the Science Center.

In 2002, Lisa Balbes, of Balbes Consultants, was the third woman Section chair of four in succession. The 95th Anniversary was celebrated with a series of lectures by Alfred Bader. And, a General Meeting, attended by immediate Past President Attila Pavlath, was a great success. New programs, including a Biotechnology Discussion Group, an industrial relations committee, and an annual report committee, certainly led to our success in 2002. In addition, four new Career Resource Programs, spearheaded by the chair, clearly contributed. We estimated that in 2002 we had more than 125 activities, organized by 88 officers and committee chairs, that were attended by over 2,000 section members and 6,000 members of the general public!

And, of course, we won an Award for Outstanding Performance by a Large Section for an unprecedented eleventh time in 2005 when Ted Gast chaired the Section. That year we hosted ACS president Bill Carroll twice. His first visit, in February, included the very successful "Round table with Bill Carroll" and the second was during Chemical Progress Week – part of his "Extreme Tour". We also hosted the Chemical Heritage Foundation exhibit "Her Lab in Your Life: Women in Chemistry" at the Rettner Gallery in the Lab Sciences Building at Washington University. The first annual Section Picnic was held during this year and other successful activities included: the joint meeting with AIChE (American Institute of Chemical Engineers); a strong Women's Chemists Committee; and our usual strong programs during National Chemistry Week including the Battle of the Burettes.

With such a history, it is easy to see why we have won so many awards. The remarkable thing was that it was noticed!

- Lol Barton

Women Chemists Spring Event

Monday, March 19 2007, 7:30 pm

"Manya: A Living History of Marie Curie"

SIUE Meridian Ballroom

This year the Women Chemists Group will be combining with the SIUE Probst Lecture. Join us for dinner and a special performance by Storysmith Susan Marie Frontczak as she presents a 1-woman theatrical performance as Madame Curie. For details and reservations please contact Leah O'Brien at lobrien@siue.edu or 618-650-3562.



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St. Louis Section – ACS Proposed Budget 2007

INCOME

Affiliate Dues	10
Corporate Donations	0
Dividends	50
Member Dues	10,000
National ACS Allotment	13,917
New Member	0
Total	23,977

EXPENSES

Officers

Chair	150
Chair Travel	500
Chair Elect	100
Chair Elect -Travel	600
Past Chair	100
Past Chair Travel	800
Secretary	1,100
Treasurer	245

Sub Total **3,595**

Other Expenses

Board Meeting Expenses	400
Councilors' Travel	3,000

Sub Total **3,400**

Awards Committee

College Student Awards	1,035
Awards Dinners	375
Distinguished Service	40
High Sch. Teaching Award	815
Science Fairs	1,015
Chem/Sci/Tech Award	595

Sub Total **3,875**

Education Committee

Career Awareness Fair	50
Career Day	750
Chemistry is pHun	500
HS Chem. Contest	1,500
Kids and Chemistry	200
TIE Workshop	450
UG Research Symp.	400

Sub Total **3,850**

Professional Activities

Career Resources	200
Government Affairs	50
Media Response (SR)	0
Minority Affairs	100
New Members	50
Women Chemists	660
Younger Chemists	0
Historian	50

Sub Total **1,110**

Program Committee

Educ. Topical Group	0
General Topics Group	1,000
Mass Sp. Disc. Group	1,000
NMR	1,200
Organic Chem.	100
Recognition Night	500
St. Louis Award Symp.	1,000
Midwest Award Symp.	1,000

Sub Total **5,800**

Publicity and Public Relations

Chemical Bond	2,500
Community Outreach	0
KWMU	0
News Media	0
Speaker's Bureau	0
Website	0

Sub Total **2,500**

Special Events

Awards Night Banq.	1,000
Chem. Progress Week	10
Continuity Dinner	400
Summer Picnic	200
National Chem. Week	500
100th Anniversary	1,000
AICHE joint meeting	0

Innovative Projects Grant 0

Sub Total **3,110**

Total Expenses **27,240**

Total Income **23,977**

NET **-3,263**

ACS/AIChE Joint Meeting

ACS St. Louis Local Section will be holding a joint meeting with the American Institute of Chemical Engineers (AIChE) local section. The meeting will be held on Wednesday, March 14th at Pfizer-Drug Discovery Area.

Date: **Wednesday, March 14, 2007**

Time: 5:30 - 6:00, Sign-In

6:00-6:15, Introduction to what Pfizer does

6:15-7:00, Tour*

7:00-8:30, Dinner*

Location: Pfizer, Chesterfield Campus (see ACS web-site for map)

Note: Mapquest gives incorrect directions

Cost: **Free**

*The tour and dinner are limited to a maximum of 55 people.

Dinner will be provided by Pfizer at no cost to tour participants. The meal will be a buffet with the following menu: Salad, baked chicken and salmon, two different roasted vegetables, hot pasta, dessert, coffee, and tea.

RSVP: Reservations for *tour and dinner* needed by 12:00 pm on Wednesday, February 28th. Reservations for the *tour only* will be available after this, but need to be in by 12:00 pm on Thursday, March 8th.

To RSVP, call David Haselbauer at 314/660-3523 or send email to: djhase@swbell.net. If sending email, please note the names and affiliation (AIChE or ACS) of those reserving a space.

Call for Nominations for Midwest Regional Award

The ACS Midwest Regional Award, established in 1944, recognizes outstanding achievement in chemistry done in the midwestern region of the United States. To be eligible, a nominee must have performed the cited work while residing within the Midwest Region of the ACS. (The nominee does not have to reside currently within the Region.) Nominations must include a nominating letter, two or more seconding letters, a curriculum vitae, a brief biography, and documented objective information regarding the outstanding achievements of the nominee. If the nominee is an academician, a list of persons who have received advanced degrees under his or her direction should be included. Please submit nine copies of all nomination material to:

Jim O'Brien, Chair
Midwest Award Committee
University of Missouri-St. Louis
Dept. of Chemistry
8001 Natural Bridge Road
St. Louis, MO 63121-4499
(314) 516-571 / lbrien@jinx.umsf.edu

**Nominations must be received on or before the deadline of March 31, 2007.*

Capital Connection

2007 Science Funding in Jeopardy

Congress's recent failure to pass new budgets for the current fiscal year will have an adverse effect on federal science funding. Last year, Congress passed just 2 of 11 spending bills dealing with military and domestic security while freezing all other federal spending at 2006 levels. Factoring in inflation, the budgets translate into reductions of about 3-4 percent for most fields of science and engineering.

Congressional Democrats have indicated that they are leaning toward keeping most government agencies operating under their current budgets until next fall.

The science community had high hopes that last year would be a banner year for science funding—especially for the physical sciences. The president's American Competitiveness Initiative (ACI) set the National Science Foundation (NSF), National Institute of Standards and Technology (NIST) and Department of Energy (DOE) Office of Science on a 10-year doubling track.

"It's rather devastating," said Jeff Nesbit, the NSF's head of legislative and public affairs. "While \$400 million in the grand scheme of things might seem like decimal dust, it's hugely important for universities that rely on NSF funding."

Raymond L. Orbach, DOE's undersecretary for science, in a recent statement seemed to call for such legislative relief: "A yearlong continuing resolution takes away many of the opportunities for advancing science... We urge Congress to continue critical investments in America's scientific leadership."

The American Chemical Society is concerned about this issue and has been reaching out to Senate and House leadership in an effort to persuade them to make special provisions for NSF, NIST, and DOE Science funding in their proposed year long spending bill.

Democrats Embark on First "100 Hours"

For the first time in over a decade, Democrats took control of both houses of Congress and Representative Nancy Pelosi (D-CA) was sworn in as the first female Speaker of the House. The 110th Congress kicked off quickly as Democrats moved to pass a series of priority initiatives during the so-called first 100 hours. After swearing in the new members of Congress, the House of Representatives tightened ethics rules and banned corporate travel, gifts, and meals for members and staff.

Republicans were criticized during the 109th Congress for a lax work schedule and failure to control federal spending. Democrats announced they would work in Washington 4-5 days a week as opposed to the recent tradition of a 2.5-day week and would reinstitute tight budget rules, known as Pay-As-You-Go (or Pay-Go), that were allowed to expire in 2001.

In addition, Democrats, have promised to raise the minimum wage, allow Medicare negotiations on drug prices, cut student loan rates, implement the security recommendations of the 9/11

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Commission, expand Stem Cell research, and repeal certain tax cuts for energy companies while expanding renewable energy research investment.

The Senate is expected to attempt to act on these proposals, but incoming Senate Majority Leader Harry Reid (D-NV) is moving slowly and compromising with Republicans in order to pass legislation. Additionally, President Bush, in an

editorial in the *Wall Street Journal*, indicated a willingness to reach across party lines to enact common goals, but promised to veto Democratic initiatives out of line with his agenda.

Math and Science Standards Receive Renewed Attention

As the new 110th Congress settles in to begin its work, one education-policy area receiving renewed attention is that of national standards for math and science at the K-12 level. Representative Vernon Ehlers (R-MI) introduced *The Standards to Provide Educational Achievement for Kids (SPEAK) Act*, a bill that would provide incentive grants to individual states that adopt more rigorous math and science standards. Senators Ted Kennedy (D-MA) and Hillary Clinton (D-NY) have also recently introduced two similar proposals that would employ a variety of mechanisms to encourage states to establish higher educational standards.

“America’s reputation as an international leader rests in the hands of our youth, and it should be among our top priorities to equip our students with the tools they need to maintain and build upon this standing,” said Dodd before a packed room at the introduction of the SPEAK Act. “Math and science skills are essential to establish and maintain academic competitiveness on the global landscape. American students should have the same opportunities to learn and achieve success whether they study in large schools or small, or live in Connecticut or California. I am confident that this legislation, combined with the supreme talent of our teachers nationwide, will help America’s students secure their place in the world as future leaders.”

“I strongly believe that we need to improve our nation’s math and science education. High-quality math and science education at the K-12 levels is extremely important to ensure that our future workforce is ready to compete in the global economy. We are sacrificing our future if we are not investing in today’s children,” Ehlers said in a statement released shortly after the bill’s introduction. “At a time when our students already trail behind their international peers on basic tests of math and science, our trade partners are making new and significant efforts towards increasing the education level of their workforces. Clearly, our nation needs to redouble its efforts to ensuring that our students are prepared for the jobs of the future.”

The bi-partisan Dodd-Ehlers *SPEAK Act* is the latest example of the willingness of members of Congress to work together across ideological and party lines to address growing concerns about the ability of U.S. students to compete with their international peers.

Recognition Night 2007

Saturday, March 31, 2007

Glen Echo Country Club
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(314) 383-1500

**Come for an enjoyable evening.
Spouses welcome!**

Please join us to celebrate and honor members who have helped make this section great. We will have a presentation of the Distinguished Service Award and the Past Chair address, among other things. Cost is \$25.00 per person. Please send in payment and the reservation form below by March 27th to Samir El-Altably.

Recognition Night Reservation Form

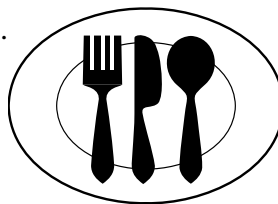
Member name:

Number attending _____ X \$25 = Amount remitted _____

Reservations must be received by **March 27, 2007**.

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