



Chemical Bond

Volume 57
Number 3
March 2006

St. Louis Section, American Chemical Society



Micheal Howe
High School Chemistry
Teacher of the Year

The SIUE Department of Chemistry and the Chemistry Club announce the 30th Annual William Probst Memorial Lecture

Dr. Vicente Verez-Bencomo¹
and Dr. Rene' Roy²

¹*Center of the Study of Synthetic Antigens, Havana, Cuba*
²*Department of Chemistry, University of Ottawa, Canada*

“Carbohydrate and biological recognition.
Impact on the development of vaccines.”

Monday, March 20, 2006

7:00 pm Meridian Ballroom, Morris University Center

Additional Probst Lecture:

“Use of a synthetic oligosaccharide
for the development of a conjugate
vaccine against *Haemophilus
influenzae* type b”

Monday, March 20, 2006

2 p.m., Science Building, 1105

Student Research Symposium

Monday, March 20, 2006

3:30 p.m. Meridian Ballroom,
Morris University Center



Funded in Part By: Sigma-Aldrich Corporation, SIUE Office of the Provost, College of
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Club and Pearson Prentice Hall

For further information contact the SIUE Department of Chemistry at (618) 650-2042

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In this issue . . .

- 4 Meetings & Seminars
 - 5 ACS Webcast Short Courses
 - 6 Micheal Howe: Chemistry Teacher of the Year
 - 9 Chemical Progress Week Schedule
 - 9 Local ACS Spring Events
 - 10 100th Anniversary of the St. Louis Section
 - 11 Summer Opportunities in Teacher Training
 - 12 Women Chemists Luncheon featuring Helen Free
 - 14 Science Fair Call for Judges
 - 15 Recognition Night
-

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 Alexa Serfis (barnoski@slu.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: March 9

Social hour: 5:30 pm

Dinner: 6:30 pm

Business Meeting will start during dinner.

Future meetings: April 13

May 11

University of Missouri-St. Louis

Seminars are held on Mondays at 4:00 pm in Room 451 Benton Hall unless otherwise specified. Refreshments 15 minutes prior to seminar time. Please check the website at: <http://www.umsl.edu/chemistry>.

March 6

The 9th Annual

Robert W. Murray Lecture

Fredric M. Menger

Emory University

An Alternative View of Enzyme Action

March 13

Robert Stockland, Jr.

Bucknell University

New Targets for the Estrogen Receptor Hormone Binding Domain

March 20

Dabney Dixon

Georgia State University

Medical Applications of Porphyryns: HIV and Cancer



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NMR Discussion Group

The NMR group has an email listserv. To join, send email to sarahj@wustl.edu with "subscribe NMR Discussion Group" in the subject line. The schedule is also posted on-line at:

<http://www.chemistry.wustl.edu/seminars/stlnmr.html>.

A campus map can be downloaded here: <http://visitor.wustl.edu/>

For more information contact:

Mark Conradi (Physics) at
935-6418 or msc@wuphys.wustl.edu

Joel Garbow (Radiology & Chem)
362-9949 or garbow@wustl.edu

Sophia Hayes (Chemistry) at
935-4624 or hayes@wustl.edu

Thursday, March 23

4:00 - 5:00 pm

Room 311 McMillen Lab (Chem)
Washington University

James P. Yesinowski

Materials Chemistry Branch
Naval Research Laboratory
Washington, D.C.

*Ga-69, Ga-71 and N-14 NMR
of Gallium Nitride as a Probe
of Structure and Electronic
Charge/Spin Effects of
Dopants and Defects*

Monday, April 3

4:00 - 5:00 pm

Room 241, Compton Hall (Phys)
Washington University

Thomas Szyperski

Dept. of Chemistry
University of Buffalo
State University of New York
*GFT NMR Based Structural
Biology: Perspectives to Study
Structure and Dynamics of
Proteins*

ACS Webcast Short Crs. Spring Classes

Gas Chromatography Basics

March 3 - April 28, 2006

Fourier Transform Infrared Spec.

March 22 - April 7, 2006

HPLC Basics

March 3 - April 28, 2006

HPLC Techniques for Analysis of Proteins and Peptides

April 19 - 26, 2006

Infrared Special Interpretation, Basic

March 22 - April 7, 2006

Interpretation of Mass Spectra

April 18 - May 30, 2006

A Pharmacology Primer for Chemist

April 24 - May 18, 2006

Toxicology for Chemists

March 22 - May 10, 2006

From Beaker to Barrel: Chemical Engr. for Chemists

April 17 - May 15, 2006

Effective Technical Writing

March 20 - May 1, 2006

Leadership in Science: Managerial & Technical Skills

April 6 - May 25, 2006

Introduction to Chemistry for Techs

April 19 - May 24, 2006

Basic Statistical Analysis of Lab Data

May 3 - 31, 2006

Essentials of Organic Chem.

March 20 - May 1, 2006

**See www.chemistry.org for details.*

Micheal Howe:

High School Chemistry Teacher of the Year

Michael Howe has been named the recipient of the American Chemical Society's 2005-2006 Teacher of the Year Award. Mike has been teaching chemistry for 26 years, spending most of that time at Parkway South High School in Chesterfield, Missouri. Since 2002, he has been the science department chairperson at Clayton High School in Missouri.

The quality of Mike's classroom teaching can only be described as phenomenal. Mike shows his versatility by the wide range of classes he teaches. At Clayton High School, he teaches the brightest kids in Honors Chemistry as well as the most academically challenged kids in a class called Systems in Science. No matter which class Mike is teaching, his philosophy of "helping every student succeed" means that he spends countless hours working with his students. Mike also encourages them to retake tests that they'd like to improve upon (he writes a lot of tests!), which fits his plan of mastery learning and giving students every opportunity to succeed.

Mike frames the study of Chemistry with "big picture" overviews to help students see the importance of what they're learning. His other motto, "Chemistry and fun", which he states with fingers crossed to imply their intertwining, is used with students often. His ability to motivate and challenge students is evident in how well his students do on the ACS-sponsored Chemistry Olympiad tests every spring. Last year, Mike's students dominated the top 15 spots taking nearly half of them, including all of the top 5

positions in the Regular Division. Now that's impressive!

Mike does a lot of projects outside of class to keep kids interested in science. Last year, he organized over 45 high school students to put on various demonstrations and lab activities for elementary students on their annual science night. The Clayton High School students claim they had a fantastic time generating interest in science for these younger kids. Mike also made arrangements for each of Clayton's elementary school 5th grade classes to take a field trip to the High School, where he and his students taught a colligative properties lab using Vernier probeware and computers. For the last two summers, Mike has created opportunities for Clayton students to do research with Washington University scientists. Open to any interested student, Mike spent time contacting researchers and hooking kids up with similar interests. Mike tells us his goal is to facilitate his students' engagement with the larger community.

Last year Mike chaired a Professional Learning Community (PLC), which dealt with Chemistry



Mike Howe, Chemistry Teacher of the Year

education. As a result of this work, he authored a paper that was presented last summer at the ChemEd Conference in Vancouver. Linda Lacy, our state Science Coordinator, has since requested that Mike present a workshop entitled "Chemistry as Fun and Games" at this year's Interface Conference.

Avital Ludomirsky, a former student of Howe's, describes him as "the best teacher I have ever had and by far my favorite! There was never a day when I left that classroom without a smile on my face and a sense of satisfaction that I understood what I was being taught."

Craig Larson, currently the superintendent of the Rockwood School District, worked with Mike for over 25 years at both Parkway and Clayton. "As

a teacher," Dr. Larson explains, "his success with students stems from his willingness to do anything to help a student learn in his class. Failure is not an option, as long as a student is willing to put more time into learning. Throughout his career Mike has steered hundreds of students toward the sciences based on a love and appreciation of chemistry that he has so thoughtfully shared."

The American Chemical Society is proud to honor Michael Howe's accomplishments in the classroom with this year's High School Chemistry Teacher of the Year Award. Mike will be officially honored at the ACS Awards Banquet in April.



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Chemical Progress Week

Monday, April 17:

Awards Night Banquet

Honors the winners of the following Awards:

High School Chemistry Contest
Leopold Marcus Award
High School Teaching Award
Chemical Science & Technology
Outstanding Junior Chemistry
Students at area colleges and
universities

Kemoll's Restaurant

\$25.00/person

5:30 pm - Social Hour

6:30 pm - Dinner

7:30 pm - Program

Contact Samir El-Antably

(314-664-5522) or Alexa Serfis

(314-977-2842 or barnoski@slu.edu)

Tuesday, April 18

Adaciom Luncheon

TBA

Friday, April 21

St. Louis Award Symposium

TBA

Saturday, April 22

St. Louis Award Banquet

Honors the winner of the
St. Louis Award

Kemoll's Restaurant

Metropolitan Bldg.

\$35.00/person

6:00 pm - Cocktails

7:00 pm - Banquet

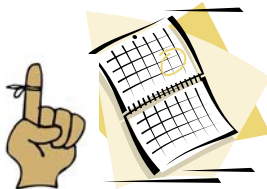
8:00 pm - Program

Contact Samir El-Antably

(314-664-5522) or Alexa Serfis

(314-977-2842 or barnoski@slu.edu)

DATES



TO REMEMBER

Local ACS Spring Events

Sunday, April 2

Women Chemists Luncheon

Forest Park Boathouse Annex

12:00 - 2:00 pm

\$12.00/person

Contact Leah O'Brien

(618-650-3562 or lobrien@siue.edu)

Friday, April 7

Greater St. Louis Science Fair

Greensfelder Pavilion, Queeny Park

6:00 pm (*see page 14)

Wednesday, April 12

Marcus Award Competition

Department of Chemistry, SLU

4:00 - 6:00 pm

Contact Bruce Kowert

(314-997-2837 or kowertba@slu.edu)

Saturday, April 29

Undergraduate Res. Symposium

St. Louis University

Contact Jennifer Fraser

(slujen@yahoo.com)

May 2-3

Career Day

America's Center

Contact Greg Wall

(800-325-5832 ext. 3139 or

gwall@sial.com)

Chemistry Olympiad

TBA

Marcus Award Competition Slated for SLU

The 2006 Leopold Marcus Award competition will be held **Monday, April 10** at 4:00 p.m. in Lee Hall (Lecture Hall 1) on the campus of Saint Louis University. **Please note that the date has been changed from that of Wednesday, April 12 announced previously.**

The Leopold Marcus Award was established by the late Jack and Gertrude Marcus in memory of his father. It is administered by the Department of Chemistry at Saint Louis University and the St. Louis Section of the American Chemical Society. The competition consists of presentations based on the undergraduate research projects of senior chemistry majors at Saint Louis University. The candidates, chosen by the faculty, will be making fifteen-minute presentations.

The winner of the award is determined by vote of the professional chemists in the audience. All ACS members are invited to attend.

Refreshments will be available after the competition. For further information, contact Bruce Kowert at (314) 977-2837 or kowertba@slu.edu.



100th Anniversary of the St. Louis Section

A sub-committee was established by the Board of Directors in 2005 to plan the celebration of the centenary of the Section during 2007. The committee is chaired by Chair-Elect Steve Kinsley. Part of the work of the committee is to gather information, artifacts, memorabilia, old publications, etc. from the early days of the Section. If anyone has any such materials that they would be prepared to give, loan or otherwise share with the committee, they should contact Lol Barton via one of the following: lbarton@umsl.edu, Phone 516-5334 (O); 382-7355 (H).

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Summer Opportunities in Teacher Training

Each summer, the American Chemical Society sponsors a series of workshops for high school chemistry teachers. These workshops are designed to provide high school teachers at all stages in their careers with the opportunity to network, to share resources, to learn new information, and to hone their craft. This summer, two types of workshops will be offered.

The first type of workshop is designed for teachers who use or intend to use the *Chemistry in the Community* (*ChemCom*) textbook. In each of these workshops, experienced *ChemCom* Teacher Leaders provide expert instruction and hands-on experience with *ChemCom*'s activities and investigations. Participants also have the opportunity to review *ChemCom*'s ancillary material and to explore the *ChemCom* multimedia offerings.

***Chemistry in the Community* Teacher Training Workshops**

June 18–23, 2006 Pittsburgh, PA
June 25 – 30, 2006 Hartford, CT
July 16–21, 2006 Ann Arbor, MI
July 23–28, 2006 Los Angeles, CA
August 6–11, 2006 St. Paul, MN
TBA Moraga, CA (20 miles east of SF)

The second type of workshop is designed for teachers of advanced high school chemistry courses. These new workshops, led by experienced secondary and college chemical educators, will provide the participants with ideas and tools for teaching an advanced high school chemistry course. The ideas and tools presented in these workshops are from the American Chemical Society college chemistry text, *Chemistry*. *Chemistry* emphasizes short experiments that introduce chemical concepts, modeling as a means of

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understanding and explaining chemical concepts, and reasoning as a means of solving problems. Teachers who participate in the Advanced High School Chemistry workshops will gain valuable resources for active and collaborative learning in their classrooms. Any interested teacher of advanced high school chemistry is encouraged to apply, regardless of which textbook he or she is currently using.

Advanced High School

Chemistry Training Workshops

June 18–21, 2006 Pittsburgh, PA
July 23–26, 2006 Los Angeles, CA
August 6–9, 2006 St. Paul, MN

There is a \$50.00 registration fee associated with each workshop. Room and board are provided. Upon successfully completing either workshop, each participant will receive a certificate documenting attendance and participation. Interested teachers are encouraged to apply as early as possible because space is limited. For more information about the *ChemCom* workshops, please visit chemistry.org/education and follow the link on the left for Workshops & Courses or e-mail chemcom@acs.org. For more information about the Advanced Chemistry workshops, please visit www.chemistry.org/education and follow the link on the left for Workshops & Courses or e-mail Jerry Bell at j_bell@acs.org.

All are Welcome - Please join us!

10th Annual

Women Chemists Luncheon



Guest and Speaker

Past President of the American Chemical Society:

Helen Free

*“The Diabetes Epidemic and the
History of the Diagnostics Industry”*

*12:00 noon, Sunday April 2 2006
Boathouse Annex – Forest Park*

*Reservations requested by March 24
To Leah O'Brien, cost \$12
(618-650-3562 or lobrien@siue.edu)
Women Chemists Committee*

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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 2006 are as follows:

St. Charles-Lincoln County Regional Science and Engineering Fair

Monday, March 13th, 6:00 pm at St. Charles Community College

Illinois Junior Academy of Science Region 12 Science Fair

Saturday, March 25th, 9:30 am at SIU-Edwardsville

Greater St. Louis Science Fair

Friday, April 7th, 6:00 pm at Greensfelder Pavilion at Queeny Park

Interested in judging? Please contact Pat Burrell-Standley

phone: (636) 537-8745

e-mail: Standley@mvp.net

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
Dept. of Chemistry
University of Missouri-St. Louis
8001 Natural Bridge Road
St. Louis, MO 63121-4499
(314) 516-5717
lbrien@jinx.umsl.edu

**Nominations must be received on or before the deadline of March 31, 2006.*

Recognition Night 2006

Saturday, March 11, 2006

Glen Echo Country Club

3401 Lucas and Hunt Road

St. Louis, MO 63121

(314) 383-1500

6:00 pm

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

Please join us to celebrate and honor members who have helped make this section great. Our evening begins at 6:00 p.m. 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 by March 3rd to Samir El-Altably. Please make your check payable to: *St. Louis Section-ACS*. Contact Dr. Samir El-Altably for more information (samire1938@earthlink.net or (314) 664-5522).

23rd Annual Career Awareness Fair

There are only 3 months until the 23rd Annual Career Awareness Fair for City and County Public Schools 8th Grade Students, which will be held on May 2-3, 2006 in Halls 1 & 2 at the America's Center. This is your opportunity to help mold the lives of our future scientist. The Section has participated in over half of the Career Awareness Fairs and have been interviewed by approximately 10,000 students. It is never too early to volunteer for this program. To volunteer, contact Greg Wall by telephone at 800-325-5832 ext. 3139 or by e-mail at gwall@sial.com.



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