



Chemical Bond

**Volume 56
Number 5
June 2005**

St. Louis Section, American Chemical Society



**Her Lab in Your Life:
Women in Chemistry
Exhibit coming this fall
(See page 4 for details)**



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Professional Capabilities and Background Experience:

The ideal candidate will have a minimum of 3-5 years of experience in analytical chemistry. Experience in the analysis of animal feed samples is a plus.

Education:

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Novus International, Inc.
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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 Ted Gast (ted@cfgastco.com) 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: *There are no meetings scheduled over the summer.*

Social hour: 5:30 pm

Dinner: 6:30 pm

Business meeting: 7:15 pm

Fall meeting dates: Sept. 8
Oct. 13
Nov. 10

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Women in Chemistry

Washington University will host the traveling exhibit “Her Lab in Your Life: Women in Chemistry” next August and September. The exhibit will be on display in the Rettner Gallery of the Arts and Sciences Laboratory Sciences Building. Designed by the Chemical Heritage Foundation in Philadelphia, this exhibit has already been at various venues across the United States since last spring. Created especially for high school and college students but designed to engage general audiences, this exhibition showcases women chemists who have helped create our modern world and their historic contributions to science and technology.

Tours of the exhibit by high school and college groups in the St. Louis area are encouraged. If you would like to arrange a group tour, please contact Mike Grayson (grayson@wustl.edu or 314/935-7486) at Washington University or Andrea Reaka (areaka@siue.edu or 618/650-5166) of the St. Louis Section-ACS. More information will be available in the next Bond.

St. Louis Chemical Science and Technology Award 2005 Call For Nominations

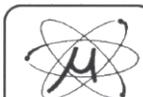
The St. Louis Science and Technology Award will be presented to a chemist in the St. Louis area who has demonstrated a high degree of professionalism and scientific contribution. Criteria used to judge the award include technical proficiency, presentations, coaching/teamwork and additional professional activities. The award will consist of a plaque, a check for \$500.00 and dinner for the awardee and a guest at the annual Chemical Progress Week Awards Night. The award will be presented to the winner at the Awards Night event, which will be held in April of 2006.

The Chemical Science and Technology Award will be presented to a person whose training includes successful completion of an Associate, Bachelor or Masters degree in a chemistry or chemistry-related curriculum.

Letters of nomination must be received by Sue Dudek, Pfizer Corp., mail code T2A, 700 Chesterfield Parkway West, Chesterfield, MO 63017 by December 20, 2005. Nominations, including seconding letters, must not exceed six pages. The nominating letters should address the criteria above. A current work address, phone number and fax number must be provided for each nominee. Please include an e-mail address.

Nominees need not be a St. Louis Section member to be eligible for this award. This award is administered by the St. Louis Section of the American Chemical Society (ACS).

For more information contact Sue Dudek at 314-274-2464,
FAX 314-274-4426 susan.dudek@pfizer.com



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Bias, Prejudice, Hate, and ACTION

by Jack Bornmann

In the summer of 1945, sixty years ago, the Second World War came to an end. "War is Hell!" one Civil War general exclaimed; and it was true during WW2. In the heat of battle the rules of warfare become mentally submerged and temporarily ignored.

However, the greatest atrocity occurred, not in battle, but within the

Letters & More Words & More

German homeland. This, of course, was the anti-Jewish prejudice that led to the Nazi death camps, i.e. the ACTION that can arise from prejudice.

I am being careful to write anti-Jewish and not anti-Semitic. The Jews are just one of the many Semitic peoples of the Middle East. My former colleague in the chemistry department at Lindenwood College, Moheb Nasr (an Egyptian), made it clear to me that he was Semitic also. This terminology started after Noah and his three sons disembarked from the ark. Shem, Noah's second oldest son, did his part to repopulate the world. These descendants of Shem, the "Shemites", are said to have become the Semite peoples (note use of plural). (If you make the sound of *sh* and then the sound of *s*, you move your tongue very slightly and adjust the position of your lower front teeth. Perhaps this spelling change occurred during translation.) Thus, the Semitic people are from the many tribes in the Middle East, including the Palestinians/Philistines.

How could the anti-Jewish prejudices of the German people lead to the atrocities, the ACTION of the Nazi leaders? Pres. Clinton in excusing his

misconducts in the corridor outside the Oval Office, said, "I did it because I could!" Adolph Hitler and his selected henchmen operated the death camps because they could. Nobody spoke openly against their actions. Other countries that knew of the persecution also kept quiet because they too had anti-Jewish sentiments. In a book by two Jews who escaped from a death-camp located in Poland, it was reported that the Ukrainian guards were far more brutal than the SS guards (Schutz Staffel guards – which translates simply to "defense staff"). Evidence has shown that a mass grave of Jewish civilians was the work of Polish civilians even before the Nazi invasion. Anti-Jewish prejudices were rampant around the world.

The Roman Catholic Church had said from the papacy that it was OK to dislike or hate the Jews because the Jewish leaders, nearly two thousand years before, had crucified Jesus. Apparently, the Lutheran seminaries had tolerated or even openly supported anti-Jewish sentiment. My grandfather was a Lutheran minister in New Jersey. When my mother proposed to take my five-year old sister to Coney Island, Rev. Bornmann said, "You're going to take her with all those Jews?" Later my little sister asked, "Mommy, what do Jews do to little girls?" Also during the Second World War, a junior high school

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chum complained about the control that the Jews had over our economy and government. In response to my request for clarification, he stated that Franklin D. Roosevelt was a Jew, and that it was obvious by his name. I shrugged my shoulders and walked away. I tell these stories to illustrate the prevalence of anti-Jewish prejudices in America and to illustrate how adults transmit that prejudice to children.

We all have opinions and biases. There are positive biases as well as negative. Brand-loyalty is a positive bias that companies depend upon. My bias against brussel sprouts is a negative bias, but probably not evil (except in the eyes of the growers).

A prejudice is an unfounded negative attitude. If you keep it to yourself, society can tolerate it. But when people with prejudices gather together to expound on their prejudices and recruit followers, then society has

trouble ahead. When these prejudices grow into hate and then these hate-mongering groups propose ACTIONS against those who do not subscribe to their intolerance, we have real problems. This is similar to the Christian Identity movement when the Covenant of the Sword and Armament of the Lord (CSA) go forth to do battle against blacks, non-Christians, immigrants, homosexuals, etc. This puts them in the same category as the Nazi leaders in Germany. If we stand-by saying and doing nothing against their ACTIONS, if we think that the police should handle the problem, then we are no better than those Germans who stood by on Krystal Nacht (the "Night of Broken Glass" when the Germans first attacked the Jews) in Germany and did nothing to stop the hatred right from the beginning.

It is easy for bias to slip into prejudice and prejudice to turn into hate. And hate ignites ACTION.

The St. Louis Section of the American Chemical Society announces a

Member Picnic

Saturday, June 11, 2005

Tower Grove Park

12:00 pm

Face Painting, Favors, Games, Ballons, Surprises

Do not miss this event!

Bring the family. Enjoy food, friends, and fine Spring weather.

Just \$5 per person. Kids under 12 are free.

Questions & Reservations contact:

Sue Dudek, susan.dudek@pfizer.com, or at: Pfizer, Inc.

700 Chesterfield Parkway West

Mail Code A2G

Chesterfield, MO 63017

phone: (314) 274-2464/fax: (314) 274-4426

Local High School Students Take National Chemistry Olympiad Exam

Eight outstanding high school chemistry students took a national exam on April 16 in an attempt to qualify to become members of the U.S. National Chemistry Olympiad team. The students are shown in the picture below (left to right) Sonalee Ravi of John Burroughs School, Max Altman of Clayton High School, Erik Brinkman of Clayton High School, Dianna Liu of Parkway Central High School, Charles Harris of Chaminade College Preparatory School, and James Lee of Parkway Central High School. The St. Louis nominees are among the nearly 1,000 nationwide that took the exam. Twenty of these students will undergo intensive training June 5-19 at the U.S. Air Force Academy in Colorado. The top four will be chosen to represent the U.S. in the 37th International Chemistry Olympiad (IChO) in Taipei, Taiwan, July 16-25, 2005.

The IChO involves a series of theoretical exams, laboratory exercises, and other activities aimed at identifying the best chemistry students from participating nations from around the world. The U.S. has participated in this event since 1984. In 2004, the U.S. team won four silver medals. A total of 234 students represented 61 countries at the 2004, 36th IChO, in Kiel, Germany.



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2005 Undergraduate Research Symposium Winners

Oral Presentations

1st Place - Brett Cothran, University of Missouri-St. Louis

“Preparation and Reactivity of Phenyl-substituted Siloles”

2nd Place - Julia Lutovich, St. Louis University

“Interaction of Wild and Mutant Forms of Phospholipase A₂ from Yersinia enterocolitica with Model Membranes”

Poster Presentations

1st Place - Daniel J. Wright and Jamie L. Rice, Saint Louis University

“Thermodynamic Parameters of RNA Duplexes Containing Inosine”

2nd Place - Robyn Goacher, Principia College

“Composite Materials for Solar Cars”

Honorable Mention - Laura Burkemper, Saint Louis University

“Pressure-Area Isotherms Reveal Packing Behavior of Phospholipid/7-Ketocholesterol Monolayers at the Air-Water Interface”

Honorable Mention - Amanda Choy, Saint Louis University

“Cholesterol/Phospholipid Mixed Langmuir Monolayers: A Fluorescence Microscopy Study”

Honorable Mention - Jennifer Fraser, Saint Louis University

“Characterization of Langmuir Monolayers of Phospholipid and Oxysterol”

Honorable Mention - Anna Kinsella, Saint Louis University

“Microchip-based Biofuel Cell”

Honorable Mention - Shu Yao, University of Missouri-St. Louis

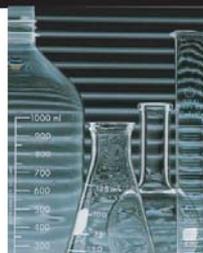
“The Synthesis of Heterocyclic Centers Containing Silicon”

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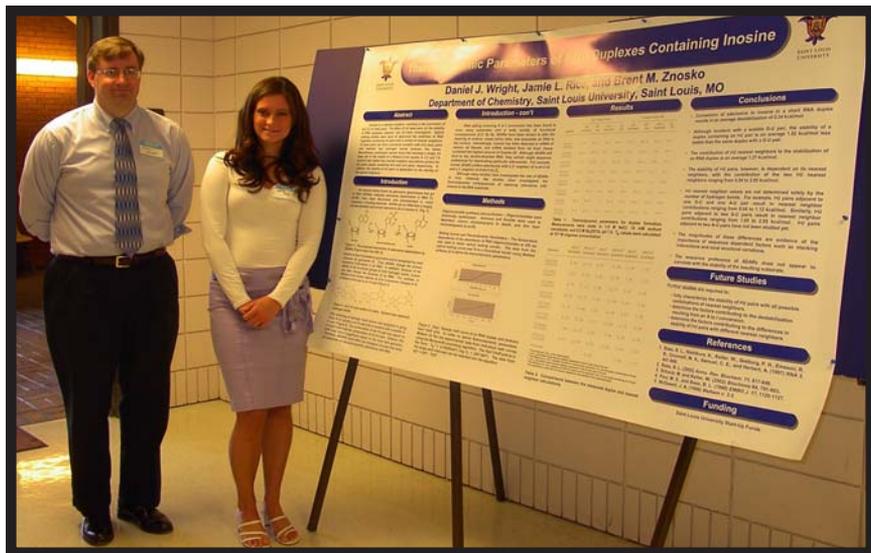
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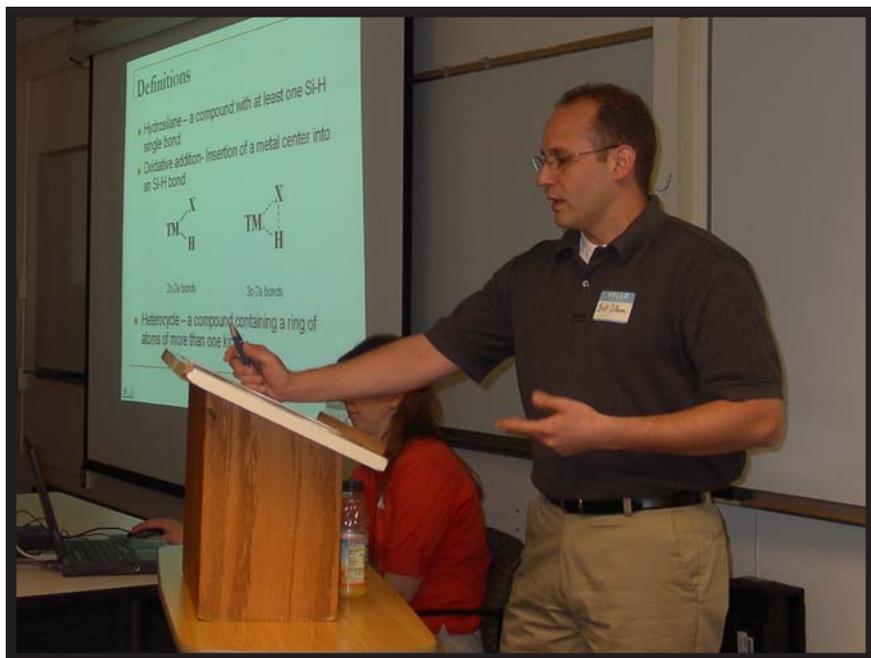
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Above: First place winner for Poster Presentations, Daniel Wright and Jamie Rice from St. Louis University

Below: First place winner for Oral Presentations, Brett Cothran from the University of Missouri, St. Louis



HELP WANTED!!

A consortium of the Illinois Local Sections of the American Chemical Society seeks assistance at the **2005 Illinois State Fair** to be held **August 12-21** in Springfield. In 2004, over 7700 visitors came to the ACS tent, located in Conservation World, and we had over 50 volunteers. The State Fair is coming sooner than we might think and we need your help!

Your assistance is appreciated in any way you can give it, but we especially need help in the following areas:

- **Financially** – you, your company or organization, or your Local Section can all help and you will be duly acknowledged!
- **Time** – volunteer to work a shift at the fair, organize a day at the fair with your group/organization to work (we offer free admission and parking!), or join the committee!
- **Resources** – gifts-in-kind of materials for demonstrations, help assembling posters for display, give-aways, etc. are all appreciated



Interested? Visit www.acsillinoisstatefair.org or send an e-mail to Frank Kravitz (fk1456@sbcglobal.net) or Cherlyn Bradley (cbrad1027@aol.com). Our next committee meeting is April 9 in Normal, IL



Don't Forget to plan your trip to see the Her Lab in Your Life: Women in Chemistry exhibit coming this fall (for details see page 4).

St. Louis Section-ACS Request for Nominations for 2006 Officers

The St. Louis Section of the American Chemical Society requests nominations for officers, directors, councilors, and alternate councilors to stand for election in the fall of 2005. If you would like to nominate someone for any or all of these offices, please fill in this nominating ballot and mail it, postmarked no later than July 15, 2005 to:

Dr. Keith J. Stine
Department of Chemistry and Biochemistry
University of Missouri-St. Louis
St. Louis, MO 63121

You may also e-mail your nominations. Please note: while it will be difficult to assure your anonymity as a nominator, your identity will be removed from the e-mail before it is forwarded to the Nominating Committee. Send e-mail nominations to ted@cfgastco.com.

Nominating Ballot St. Louis Section-ACS 2006 Officers

Chair-Elect _____

Secretary _____

Treasurer _____

Directors _____
(up to three)

Councilors _____
(up to two)

Alternate Councilors _____
(up to two)

FROM THE HILL...

Innovation Summit Announced

To raise awareness of the increasing importance of federal support for physical science research and its implications for the future of U.S. industry, jobs and national security, [Representatives Frank Wolf \(R-VA\)](#), [Sherwood Boehlert \(R-NY\)](#) and [Vern Ehlers \(R-MI\)](#) announced plans for an innovation summit. The summit is scheduled to occur during the fall of 2005 and will be supported by funds provided in the recently enacted FY 2005 Supplemental Appropriations bill.

Representative Wolf recently stated, “America’s dominance in the science and innovation is slipping. We are facing today a critical shortage of science and engineering students in the United States. Unfortunately, there is little public awareness of this trend or its implications for jobs, industry or national security in America’s future. We need to make sure we have people who can fill these science and engineering positions. Since 1980, science and engineering positions in the U.S. have grown at five times - FIVE TIMES - the rate of positions in the civilian workforce as a whole. We need to make certain that America continues to be the innovation leader of the world America’s advantage in science is slipping.”

While, Representatives Wolf, Boehlert, and Ehlers are working to raise the visibility of this important issue, they will count on science societies and trade associations to help plan for this event. In addition, to raising the visibility of our innovation’s needs, Reps. Wolf, Boehlert and Ehlers have all called for significant increases in NSF’s budget. Rep. Wolf has publicly stated that NSF’s budget should be tripled and is encouraging the White House to make its FY 2007 budget request significantly higher. And, Rep. Ehlers recently led [an effort](#), which Rep. Boehlert and 164 other U.S. Representatives joined, calling for a \$627 million increase, to \$6.1 billion, for NSF in FY 2006.

LAN Members Fly-In to Lobby Congress

In early May, seven ACS Legislative Action Network (LAN) members joined more than 200 scientists, engineers and business leaders for the [Tenth Annual Congressional Visits Days \(CVD\)](#) summit in Washington, D.C. CVD is sponsored by a coalition of more than 30 scientific societies and trade associations to bring the concerns of the science, engineering, and technology community to Capitol Hill.

The ACS participants traveled from: Alabama, Arizona, Idaho, Kentucky, Nevada, North Dakota, and Tennessee to make their voices heard. The group was selected because of their ACS Local Section leadership, ACS governance leadership, and the importance of their members of Congress to chemistry.

They discussed the nation’s broad portfolio of investments in science, engineering and technology and emphasized its relevance in promoting national security, prosperity and innovation. Most important, constituents provided personal perspectives on how programs at the National Science Foundation and Department of Energy’s Office of Science impact universities and companies at local and national levels.

American Chemical Society appoints Laura L. Kiessling to lead major new initiative in Chemical Biology

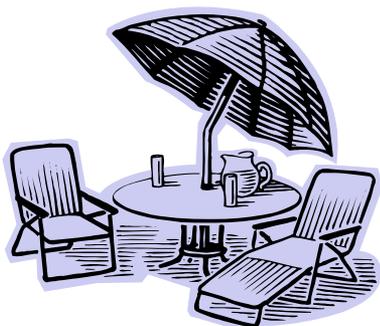
The American Chemical Society has announced the appointment of Dr. Laura L. Kiessling as editor-in-chief of ACS Chemical Biology, a new publication scheduled to launch in 2006.

ACS Chemical Biology will provide a new central forum for the interface of chemistry and biology, emphasizing the use of rigorous chemical and biological approaches to solve problems in living systems. This monthly publication will offer rapid communication of peer-reviewed, primary research, supplemented by mini-reviews, concept articles, perspectives, news features and highlights from other ACS journals.

ACS Chemical Biology will seek to support the chemical biology community by providing venues for the exchange of ideas and approaches and by creating a dynamic Web gateway that allows users access to high quality information. The new publication aims to assume a leadership role in delivering and highlighting significant research in this innovative field.

Kiessling is recognized as a leading voice and pioneer in the field of chemical biology. From her laboratory at the University of Wisconsin, Kiessling said, "The synergistic progress in these disciplines renders chemical biology a vibrant and vital field. I want to use this initiative to help foster communication between chemists and biologists while at the same time conveying the significance of their research to a broad readership. ACS Chemical Biology represents an important advance for this field. This new publication is something I am proud and excited to be a part of."

More details are soon to follow on this innovative new title from ACS Publications. You can stay up to date on the latest information on ACS Chemical Biology at www.acschemicalbiology.org. 2006 - Volume 1, 12 Issues; Print Edition (ISSN 1554-8929); Web Edition (ISSN 1554-8937).



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