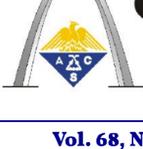





## Chemical Bond, March 2017



# Chemical Bond

Vol. 68, No. 3, March, 2017

### Career Day at UMSL: note the date, sign up your class

first published 14 February 2017

Letting high school chemistry teachers know about the upcoming Chemistry/Biochemistry Career Day, an annual event at University of Missouri–St Louis on Friday, May 5th:

Sponsored by the St. Louis Section–American Chemical Society, the objective is to introduce high school science students to careers in chemistry and biochemistry and have them observe activities in those areas. Your visit will include tours of research laboratories and instrument facilities, and chemistry demonstrations by the UM–St. Louis Chemistry Club.

In the department tour, research in biochemistry, inorganic, organic, and physical chemistry will be featured and major instruments to be demonstrated include x-ray diffraction, nuclear magnetic resonance, mass spectrometry and electron microscopy. The “central science” nature of chemistry and biochemistry are tied in to other careers, such as those in healthcare.

Lunch (pizza, etc.) starting at about 11:30 a.m. concludes the event.

For more details, please see the [invitation letter](#). If you would like to bring your class group to participate in Career Day, please respond by Friday April 21st, 2017, to Leah Trimble (516-5311, e-mail: [trimble@umsl.edu](mailto:trimble@umsl.edu)) with the number of students who will attend. Questions about the program can be addressed to:

Professor Keith Stine  
kstine@umsl.edu  
314.516.5346

—or—  
Professor James J O'Brien  
obrien@jinx.umsl.edu  
314.516.5717

Department of Chemistry and Biochemistry  
One University Blvd  
St Louis, Missouri 63121



### STL Science & Technology has a winner

first published 26 February 2017

David Wonjun Rhee has announced the winner of the 2017 Saint Louis Science & Technology Award: **Alison MacInnes** of Monsanto.

Alison graduated from the University of Manchester, UK, with a Master's in Chemistry with German. She began her research career at Pfizer in the UK working as a synthetic organic chemist in the Discovery Chemistry group, developing novel compounds for the treatment of stroke, thrombosis, and GI disease. Her family moved to St. Louis as part of the Pfizer/Pharmacia merger.

In 2009, Alison joined Monsanto Company in the Formulations and Delivery group working on developing new herbicide formulations. During her time at Monsanto, Alison's focus has been to develop new low-volatility formulations of dicamba VaporGrip™ Technology, a straight goods dicamba formulation that achieved volatility reduction of over 90% compared to Clarity®, the diglycolamine (DGA) dicamba formulation currently on the market. In parallel, she formulated a low volatility dicamba and glyphosate premix product to be commercialized as Roundup Xtend™ with VaporGrip™ Technology. Both formulations incorporate Monsanto's proprietary VaporGrip™ Technology that provides a simple, complete formulation solution that provides a significant reduction in volatility after application.

In addition to developing these low-volatility formulations, Alison has been instrumental in their scale-up and advancement to product commercialization. XtendMax with VaporGrip™ Technology commercially launched in Canada in Spring, 2016, and was applied over dicamba Xtend Roundup Ready 2 Xtend™ soybeans in the key soybean growing regions of southwest and eastern Ontario, and Quebec, as well as western Canada. In the United States, the use of dicamba herbicide over Roundup Ready 2 Xtend soybeans and Bollgard II Xtendflex cotton was approved in November 2016 for XtendMax™ with VaporGrip™ Technology.

As part of the commercial launch, Alison has been involved with education outreach to key stakeholder groups both within Monsanto and outside of the company. These include Monsanto chemistry sales teams, academic summits, weed science society meetings and Commodity Classic.

Alison is a mentor with the Ag Productivity Innovations mentoring program and has presented at the ACS Chemistry Career Night. Alison resides in Wildwood, MO with her husband and two teenage boys, Thomas and Ben. She will receive her award at [Recognition Night](#) on March 25th.



Alison MacInnes, 2017 Chemical Science & Technology awardee

### Awards Night 2017

first published 27 February 2017

Save the date!  
Tuesday, April 18, 2017

Awards Night will be held this year at Maggiano's on the Boulevard (across Brentwood Blvd from the Galleria – [map](#)).

Winners of the high school chemistry contest, the high school chemistry teacher-of-the-year, and the outstanding junior chemistry students at area colleges and universities are all recognized.

#### Agenda:

- 6:00 PM – Reception/social hour
- 6:30 PM – Dinner
- 7:45 PM – Awards program

All are welcome, whether you're coming to applaud a particular honoree or not. Student winners and High School teachers receive a complimentary dinner; others may attend for \$25 each. All attendees must RSVP by Thursday, April 14, to the Awards Night coordinator, Leah O'Brien at [lobrien@slu.edu](mailto:lobrien@slu.edu) or 618-650-3562.

### Save the date for the annual STL ACS picnic!

first published 28 February 2017

With the arrival of March, people look forward to getting together outside, and the Saint Louis ACS chapter is no different. The annual picnic will be hosted this July by [Joseph Ackerman](#), our Immediate Past Chair.

#### Details:

- 1 – 5 PM
- July 8, 2017
- Tilks Park ([map](#))
- Windegger Pavilion

Please RSVP to Joe at [ackerman@wustl.edu](mailto:ackerman@wustl.edu)



### Two big awards seek nominees

first published 27 January 2017

It's the season when the Awards Committee starts soliciting nominations for the St. Louis Section's two biggest awards: the [St. Louis Award](#) and the [Midwest Award](#). You can learn about the history, eligibility, and past winners by following those links there. Those ones in the previous sentence. No, actually, the sentence before the previous one. Oh, hell.



#### St. Louis Award

Nominations are solicited for the St. Louis Award, which is sponsored by the Monsanto Company and administered by the St. Louis Section–ACS. Nominees should be individuals who have made outstanding contributions to the profession of chemistry and demonstrated potential to further the advancement of the chemical profession. The awardee is selected by a review committee constituted by the St. Louis Section–ACS. The award, consisting of a \$1,500 honorarium and a plaque, is presented at the St. Louis Award Banquet, which is typically held in October during National Chemical Week.

At the time of the nomination, nominees must not have previously received the Midwest Award or any national ACS-sponsored award. Nominees must be members or affiliates of the St. Louis Section of the ACS. Nomination packets **received by April 30** are considered for award presentation in October.

Nomination packages (*vide infra*) should be prepared as a single Portable Document Format (PDF) file and sent by email to [John-Stephen Taylor](mailto:John-Stephen Taylor). Nomination letters, required as an integral component of the nomination package, can be formally addressed to:

John-Stephen Taylor, Ph.D.  
ACS Saint Louis Award Coordinator  
Department of Chemistry  
Campus Box 1134  
Washington University  
1 Brookings Drive  
Saint Louis, Missouri 63130

Nomination packages (single PDF-file) should include, in this order:

1. a face page with the award name, the nominee name, and the date of the nomination
2. a nominating letter, which includes note of any significant activities with the Local Section
3. two additional seconding letters (not more) from individuals who have had a close professional affiliation with the nominee
4. a brief biography of the nominee (one page or less)
5. a concise description of the nominee's chief accomplishments in the field (one page or less)
6. a list of publications and patents

Additional details can be found at URL <http://www.stlacs.org/st-louis-award/>.

#### Midwest Award

Your assistance is solicited in identifying candidates for the 2017 Midwest Award. The St. Louis Section of the American Chemical Society established the ACS Midwest Award in 1944 and confers it annually on a scientist who has made meritorious contributions to the advancement of pure or applied chemistry, chemical education, and the profession of chemistry. The contributions must have been made during a period of residence in the geographical area defined by the territories of the Local Sections that participate in the Midwest Regional Meeting of the ACS. These 17 Sections are listed in programs for Midwest Regional Meetings. Nominees can work in industry, academia, government, or in private practice.

The 2017 Midwest Award will be presented at the 52nd Midwest Regional Meeting of the ACS to be held in Lawrence KS, October 18-20, hosted by the University of Kansas. Ceremonies feature a Midwest Award Symposium and the Midwest Award Lecture. The Award consists of a medalion and a cash honorarium; it is presented by the St. Louis Section Chair at the Midwest Awards Banquet. The recipient must agree to give a Midwest Award Lecture and attend the Midwest Awards Banquet; both events usually occur on the Thursday of the Midwest Regional Meeting, which would be on October 19 this year.

Nominations consist of

- o a nominating letter for the nominee and two or more seconding letters;
- o a CV for the nominee;
- o a brief biography of the nominee;
- o documented and objective information regarding the outstanding achievements of the nominee;
- o if the nominee is an academician, a list of people who received advanced degrees under her or his direction

Activities in support of the ACS in the Midwest Region constitute an added criterion. Please [submit nominations](#) electronically as a single pdf file. All nominations must be received on or before **Friday March 31, 2017**.

If you have questions, please contact ACS Midwest Award Coordinator Jim O'Brien at [obrien@jinx.umsl.edu](mailto:obrien@jinx.umsl.edu) or phone 314.757.5717.

### Recognition Night paging members

first published 30 January 2017

Join us on Saturday, March 25th, at The Cheshire Hotel in the Boundary restaurant, as we celebrate and recognize **50- and 60-year ACS members**. **Vic Lewchenko** will be presented with the 2016 Distinguished Service Award for the St. Louis Section. Vic recently completed an impressive tenure as Section Treasurer and Impromptu photographer. Many Past Chairs of the St. Louis Section will gather, and the immediate past Chair of the Section, **Joe Ackerman**, will give an entertaining after-dinner talk.

Boundary restaurant is located adjacent to The Cheshire hotel, near the intersection of Clayton and Skinker/McCauley, immediately off of Highway 64/40 ([map](#) or GPS to 7036 Clayton Ave, St. Louis, MO 63117). Self-parking in the front lot and complimentary valet parking are available.

Agenda:  
6:00 – Reception/social hour  
6:45 – Dinner  
7:45 – Program • Past Chair's Address (Joe Ackerman) • Introduction of 50- and 60-year members\* • Distinguished Service Award presentation (to Vic Lewchenko)

RSVP by March 11 to [Natalie LaFranzo](#), Chair of the St. Louis Section–ACS, with the following information:

Name(s) \_\_\_\_\_  
Number attending \_\_\_\_\_ x \$30 each = amount remitted \$ \_\_\_\_\_

Please also choose your dinner selection(s) below:

- Braised Beef Short Rib
- Grilled Seasonal Fish
- Vegetarian Risotto

Makes checks payable to St. Louis Section–ACS, and mail to:  
Jeffrey Cornelius  
1 Maybeck Place  
Elsah, IL 62028



## Meetings & Seminars

#### Board of Directors

St. Louis Section–ACS Board of Directors meets the second Thursday of each month, usually at the Glen Echo Country Club ([map and driving directions](#)). Meetings are open to all members, and all are encouraged to attend. Elected officers and chairs of major committees vote on questions put to the Board; others in attendance have voice but no vote.

If you want to attend for dinner, please contact the section Chair at least a week in advance. Usual cost of the dinner is \$22 (\$11 for post-docs and unemployed members). Bar service and dessert are optional extras. Members wishing to become active in section activities are welcomed for their first dinner as guests of the section.

Date: Mar 9  
Social hour, cash bar: 6:00 pm  
Call to order: 6:30 pm (Board Meeting suspended during dinner service)  
Future meetings: Apr 13, May 11

#### Saint Louis University

Members are generally on Fridays at 12 noon in Carlo Auditorium, Tegeler Hall, unless noted otherwise. Refreshments follow. For the most up-to-date information, refer to the department's [seminar page](#) or contact Brent Znosko, [znoskob@slu.edu](mailto:znoskob@slu.edu).

#### University of Missouri–St. Louis

Members at 4 pm in 451 Benton Hall, unless otherwise specified. Refreshments 15 minutes prior to seminar time. For timely information on visiting seminar speakers, contact the Chemistry Department, 314.516.5311, or visit the [seminar schedule](#). The department has additional seminar series which are also accessible from this page.

#### Washington University

Seminars are in McMillen 311 at 4 pm unless otherwise noted. For information, consult the departmental [events page](#). Related seminars, including endowed seminar series and the WU med school biochemistry series, are linked here as well.

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WEB PAGE : [www.micronanalytical.com](http://www.micronanalytical.com)

The Chemistry and Biochemistry Departmental Instrumentation Facilities at the University of Missouri–St. Louis (UMSL) provide instrumental services run by highly experienced and knowledgeable staff at a reasonable fee. Data collection and analysis services include NMR, mass spectrometry, X-ray crystallography, and microscopy.



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MS: Joe Kramer at (314) 516-5120 or [by email](#)  
X-Ray: Dr. Nigam Rath at (314) 516-5333 or [by email](#)  
Microscopy: Dr. David Osborn at (314) 516-4761 or [by email](#)

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**UMSL** Department of Chemistry and Biochemistry

**Summer Courses 2017**

**Introductory Chemistry I** (Chem 1111, 5 credits) Prof. Valerian D'Souza ([vally@umsl.edu](mailto:vally@umsl.edu)) May 15 – July 8 (Lecture M, T, W, Th 11:00-12:15; Lab T, Th 1:00-4:00 PM); Discussion M, W 1:00-2:15 PM)

**Introductory Chemistry II** (Chem 1121, 5 credits) Prof. Bruce Hamper ([Hamperb@umsl.edu](mailto:Hamperb@umsl.edu)) May 15 – July 8 (Lecture M, T, W, Th 11:00-12:15; Lab M, W 1:00-4:00 PM); Discussion T, Th 1:00-2:15 PM)

**Organic Chemistry I** (Chem 2612, 3 credits) Dr. Sundaram Guruswami ([sundaramguruswami@wustl.edu](mailto:sundaramguruswami@wustl.edu)) May 15 – June 23 (Lecture M, T, W 5:00-7:30 PM)

**Organic Chemistry II** (Chem 2622, 3 credits) Prof. Tony Mannino June 26 – August 4 (Lecture M, T, W 5:00-7:30 PM)

**Organic Chemistry Lab** (Chem 2633, 2 credits) instructor TBA. June 12 – August 5 (Lecture M, T 11:30-12:20, Lab Section 1 M, W 12:30-5:00 PM or Lab Section 2 T, Th 12:30-5:00 PM)

**Biochemistry** (Chem 4712, 3 credits) Dr. Greg Wall ([gwall37@msn.com](mailto:gwall37@msn.com)) May 15 – July 8 (Lecture M, T, W 5:30-8:00 PM)

**Quantitative Analysis** (Chem 2223, 3 credits) Dr. Lynda McDowell ([mcdowell@umsl.edu](mailto:mcdowell@umsl.edu)) June 12 – Aug 5 (Lecture M, W 10:00-11:40, Lab M, W 12:30-5:00 PM)

Registration is open ([www.umsl.edu/~registration/](http://www.umsl.edu/~registration/))

## About the Chemical Bond

The *Chemical Bond* is published at [www.stlacs.org](http://www.stlacs.org) January through May and September through December by the St. Louis Section–American Chemical Society. If you would like to receive email notification when each issue is posted, you can subscribe to our email list and join the “Chemical Bond reminders” group.

Correspondence, letters to the editor, etc., should be emailed to [editor@stlacs.org](mailto:editor@stlacs.org) or mailed % St. Louis Section–ACS, PO Box 410192, Saint Louis, MO 63141-0192

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