Chemical Bond, September 2018



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Science Fairs galore! first published 10 June 2018

Reported by GSM Sundarum

The Saint Louis chapter of the American Chemical Society sponsors a number of awards and programs at science fairs across the area. Members participate by helping to coordinate some of the events and provide judges.

The first up was the 2018 Missouri Tri-County Regional Science and Engineering Fair on March 3. In the Grades 5-8 Division, here are your winners:

First Place: Lakshita Senthil, "Will an Increased concentration of Carbon dioxide in the

atmosphere contribute to a rise in global temperature" Grade 6, West Middle School, Chesterfield, MO. Second Place: Aadit Mehta, "Rate of Electrolysis for different water solutions"

Grade 5, Castlio Elementary School, MO.

Third Place: Dustin Hernke, "How acidic is your drinking water" Grade 5, Boone Elementary School, MO.

Next up was the Illinois Junior Academy of Science Region 12 Science Fair on March 24. In the Grades 5-8 Division, the winners were:

First Place: Connor Mathus, "Mini Rockets" Grade 8, St. Ambrose School, IL.

Second Place: Daniel Bradley "From Bitter to Sweet" Grade 8, Governor French Academy, IL. Third Place: Tie: Rebecca Thomas "Create Access to Safe drinking water" Grade 7, Liberty Middle School, IL. And

Margaret Paty "An ecofriendly substitute for Motor oil" Grade 6, Liberty Middle School, IL.

Last up was the Academy of Science - St. Louis Science Fair on April 25th, where the ACS St. Louis section presents a Science Fair Chemistry Award. This year's winners:

HONORS GRADES 9-12 DIVISION:

First Place: Jerry Zhang, "A Geant4 Monte Carlo Simulation of a quantum Multiple Scaterring Mitigation," Grade 12, Marquette High School, Saint Louis, MO. Second Place: Nikhil Mitra, "A thermodynamic approach to Predicting Gal-4 binding," Grade 12, Rockwood Summit High School, Saint Louis, MO. Third Place: Owen Kathriner, "Allelopathy in Lonicera Maackii," Grade 12, Kirkwood High School, Saint Louis, MO.

GRADES 9-12 DIVISION:

First Place: Lilly McCaine, "Finding Energy in Different type of Food," Grade 11, Gateway Science Academy Middle and High School, St. Louis, MO.

Second Place: Barragan Jesus, "pH levels in soils" Grade 10, Lafayette Sr. High, Saint Louis, MO

GRADES 6-8 DIVISION:

Connor Mathus, St. Ambrose School

First Place: Ceferino Patino, "Rocket Reactions," Grade 6, Mckinley Classical Leadership Ac., St Louis, MO.





Daniel Bradley, Governor French Academy



Rebecca Thomas, Liberty Middle School



Judges from the Academy of Science - St. Louis Science Fair. from left: GSM Sundaram, Donald Sartor and William Uhland

YCC meets SLPS Day Campers first published 5 July 2018

Tabbetha Bohac, chair of the local section YCC, reports:

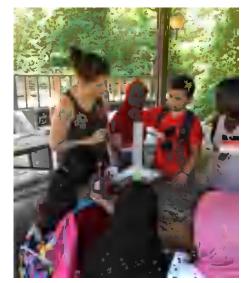
On June 29th, the YCC participated in an outreach event, leading a STEM station, providing a fun and educational experience to 300 3rd-5th graders at St Louis Public School Day Camp at Beaumont Scout Reservation. YCCers had fun too, performing the disappearing cup, reactivity, and elephant toothpaste demos. This event went really well, and we were invited back to help at another camp later this summer. I will have more details on that upcoming outreach event soon. Thanks to Lisa Balbes for the liaison that brought us to this event!

Stay tuned for the promised details of the program's reprise. Maybe if we ask real nice, Tabbetha will also tell us a little more about the demos they did. Elephant toothpaste? For tusks?

A few photos will let you see how well received the program was.







in advance, hoping for tolerable.

Margaret Paty, Liberty Middle School

For some, weather definitely qualifies as small talk. But around these parts, in summer, it is serious business. So it is always a dicey proposition to plan a picnic months

Were you watching the weather forecasts the week before? Highs in the mid-to-high 90s wall to wall, and then, for Saturday and Sunday, that temperature bar graph looked like the Grand Canyon. And it was ... comfortable ... mostly.

Our new venue was right across the park road from Creve Coeur Lake, and we were able to watch the unofficial sailing regatta while chatting and chowing down. A nice eclectic mix of old-timers, new members, SOs, and kids attended. Not enough to seriously dent the food and beverage provisions, but nice. We owe the weather and venue choice to the hostperson, Natalie LaFranzo. Grillmeisters Joe and Brenda Ackerman kept flipping burgers and rolling hot dogs until appetites were sated. If you were there, we hope you had a good time. If you weren't, we'll be doing it again next year. A few pics of the festivities are here. If you can't find yourselves in these, you can look at the full set of photos in our Flickr album.





first published 24 July 2018

first published 24 August 2018





Minority Affairs says "YES" to STEM teens

This past July, ACS-St Louis Minority Affairs participated in the Youth Exploring Science (YES) Networking Extravaganza. The YES Program provides a great opportunity to teens who are unsure of what they want to do with their futures: to meet with local professionals in STEM. These local professionals, including volunteers from ACS, spent their morning challenging local teens academically and personally, and provided developmental skills to give them a professional leg up.

The room was full of professionals, including colleagues from the local police department, fire department, biologists, chemists, academics, military, photographers, graphic designers, and more. Teens rotated through the tables and networked for 10 minutes at each. ACS-St Louis Minority Affairs was excited to give local minority





Be on the lookout for Minority Affairs and YCC Professional Development series coming in September! Reported by Chanté Summers

Aaaaand they're back (from Boston)

Our local section Councilors have just returned from the 256th ACS National Meeting, held August 19-23, 2018, in Boston. Bearing gifts. Well, *a* gift. Thanks, Ted Gast, for being the first to do this document dump.

The document Councilor Talking Points is intended to serve as a springboard for Councilor reportage to members and discussion of actions taken at the Council and Board of Directors meetings. We usually make a subjective attempt to pull out a few items likely to be of widest interest. Here goes:



- The theme of the 256th ACS National Meeting was "Nanoscience, Nanotechnology, and Beyond." As of Tuesday evening, August 21, attendance was 14,235, including 8,294 regular attendees and 1,181 exhibitors.
- ACS President Peter Dorhout led a special discussion on what role ACS should play in preventing sexual harassment in the sciences. Some suggestions were floated. Some poll results were presented, but only a very slim sliver (less than 3%) of attendees submitted answers, so it's hard to know how much credence to
- give the stats. • And we quote, "In light of the recent financial performance of the technical-meeting component of our national meetings, the Board voted to approve an advance member registration fee of only \$490 for national meetings held in 2019." If you didn't know what the fee was this year, you'd be forgiven for assuming, from the wording, that this represents a fee decrease. Sorry, no. It represents the normal inflation escalation over the current year. Better hurry and get emeritus status.

• There's a list of links to ACS officers, committees, member service offices, and resources available to members. But hey, don't rely on this subjective selection of highlights. Have a look for yourself.

Upcoming Leadership Development Forum: Coaching and Mentoring first published 29 August 2018

Come join the members of the Leadership Development Forum for Seminar Module 10 on September 18: Coaching and Mentoring, First, you will hear everything you need to know from a certified coach. Testimonies from our colleagues from both the mentor and mentee perspectives will follow, and we will close with time for questions.

Program:

6:00 – 6:30 PM	Free dinner
6:40 – 7:10 PM	Tim Dean – Certified Coach and Owner of Coaching Dean
7:10 – 7:25 PM	Greg Hartmann – Director of Production Technology and Rhonda Woerndle – Production Technology Bayer Crop Science (Monsanto)
7:40 – 8:30 PM	Discussion & Networking

Parking & Directions:

Webster University Browning Hall (36) Room BH160 and Parking in parking garage (10). Please tell the Public Safety office in the parking garage that you are there for the ACS event. (map)

Register TODAY to reserve your spot.

Contact: eric.a.bruton@boeing.com with questions.

James Janetka is the 2018 Saint Louis Award winner! first published 30 August 2018

Natalie LaFranzo, past chair of the St Louis Section-ACS and chair of the St Louis Award jury, has announced the winner of the 2018 St Louis Award.

Dr. James Janetka, Associate Professor of Biochemistry and Molecular Biophysics at the Washington University School of Medicine in St. Louis, is this year's ACS-St Louis Award winner. He attended college at the University of Illinois at Champaign-Urbana, earning a BS in biochemistry in 1990, also performing an undergraduate thesis with Dr. Peter Beak. He received his graduate training in organic and medicinal chemistry with Dr. Daniel Rich at Wisconsin-Madison, earning a PhD in 1996. He completed postdoctoral training with Dr. Kenner Rice at NIDDK/NIH. He worked as a medicinal chemist investigator and principal scientist with Vertex Pharmaceuticals and then with AstraZeneca in Boston from 1997 to 2009. Dr. Janetka came to Washington University in 2009 and is currently an Associate Professor in the Department of Biochemistry and Molecular Biophysics, with an Adjunct Faculty appointment in the Department of Chemistry. He cofounded two companies in St Louis: Fimbrion and ProteXase Therapeutics. He has been a member of the American Chemical Society since 1990, participating in the organic, carbohydrate, biological chemistry and medicinal chemistry divisions. He is a member of the American Association of Cancer Research, the Siteman Cancer Center, the Center for Women's Infectious Disease at Washington University, and the International Proteolysis Society. He has served on the editorial boards of Cancer in Chemistry Research for the AACR and Current Drug Discovery Technologies for Bentham Publishers. He is co-editor-in-chief for DrugDesign, Development and Therapy for Dovepress. He has served on grant review panels for the Regeneron Prize, the Susan G. Komen Foundation, the NIH (for parent and SBIR/STTR proposals), the Washington University Research Strategic Alliance Grant, the Siteman Cancer Center Investment Program, the Developmental Pathway Funding Scheme in the UK, as well as other National Science Organizations in France, Israel and Poland.



Dr. James Janetka, Associate Professor of Biochemistry and Molecular Biophysics at Washington University School of Medicine in St. Louis

Dr. Janetka's current research funding includes grant awards from NIH/NIAID, NIH/NIDDK, NIH/NCI, Vyera Pharmaceuticals, Susan G. Komen Foundation and Siteman Cancer Center. He has been an invited lecturer at several institutions and national and international meetings. His teaching contributions to Washington University have included lectures in courses in medicinal chemistry, high-throughput screening, microbial pathogenesis, cancer biology and biomedical engineering. He has served on the thesis committees of multiple students in both chemistry and the DBBS program at the medical school. He has 49 publications (36 since 2009) and 20 US granted patents covering GPCR, helicase, kinase, protease, and lectin inhibitors as therapeutics for cancer and infectious disease. His work and leadership has resulted so far in two oncology drugs AZD7762 and BVD-523, which is currently in Phase 2 trials.

The Saint Louis Award, sponsored by the Monsanto Company and administered by the Saint Louis Section-ACS, is presented to an individual who has made outstanding contributions to the profession of chemistry and demonstrated potential to further the advancement of the chemical profession. The award, consisting of a \$1,500 honorarium and a plaque, is presented at the Saint Louis Award Banquet that will be held Friday November 2, 2018. Details on the St Louis Award symposium which will also be held that Friday afternoon at the Washington University Medical School, can be found here. (Reservations are required for the banquet; see link for **RSVP** instructions.)

Saint Louis Award Symposium 2018 program first published 31 August 2018

Medical School in St. Louis, with additional support from ProteXase Therapeutics, and Fimbrion Therapeutics.

The 2018 Saint Louis Award Symposium-Friday, Nov. 2nd-is sponsored by the St. Louis Section of the American Chemical Society and Washington University

Honoring Dr. James Janetka Associate Professor Department of Biochemistry and Molecular Biophysics Adjunct Professor, Department of Chemistry

Washington University in St. Louis

2018 Saint Louis Award Winner Erlanger Auditorium, McDonnell Sciences Building

Washington University School of Medicine in St. Louis

Mimicking Nature's Biomolecules in Transformational Drug Discovery

1:00 pm Dr. Benjamin BarthAssociate Professor, Chemistry - St. Louis College of Pharmacy, Chair of the St. Louis Section, American Chemical Society Welcome and General Introductions: Dr. John Cooper- Professor and Head, Department of Biochemistry and Molecular Biophysics, Washington University School of Medicine in St. 1:05 pm Louis, Symposium Chair Introduction and Salute to Dr. Janetka Dr. James Janetka, Associate Professor, Department of Biochemistry and Molecular Biophysics, Washington University School of Medicine in St. 1:10 pm Louis, Awardee From Ligands and Substrates to Drugs: The Power of Rational Design 1:50 pm Dr. David Crich, Professor, Department of Chemistry, Wayne State University Shaping Next Generation Aminoglycoside Antibiotics for Treatment of Multidrug Resistant Diseases Dr. Robert Galemmo, President, ProteXase Therapeutics 2:30 pm Adventures in Drug Hunting: Taking a Hint from Nature and the Literature **Refreshment Break** 3:10 pm Dr. John Talley, Chief Scientific Officer, Euclises Pharmaceuticals 3:30 pm Discovery of Cox-2 Inhibitors Dr. Tomi Sawyer, Distinguished Scientist, Merck & Co. 4:10 pm Peptide Drug Hunter: An Extraordinary Trek into Intracellular Target Space Dr. John Cooper 4:50 pm **Concluding Remarks** Reception immediately following 5:00 - 6:00 pm 6:30 pm Saint Louis Award Banquet, Glen Echo Country Club 3401 Lucas and Hunt Rd, Normandy, MO Reservations required (See link for more information and reservations)

Venue information: See campus map for the location of Erlanger Hall and various parking options. There is also the convenient MetroLink Central West End station accessible by the Blue and Red lines.

Get your reservations in for the 2018 Saint Louis Award Banquet first published 31 August 2018

Friday, November 2, directly after the Saint Louis Award Symposium

Glen Echo Country Club[®], 3401 Lucas & Hunt Road, Saint Louis, MO 63121

6:30 pm cocktails (open bar), hors d'oeuvres

7:00 pm banquet 8:00 pm program

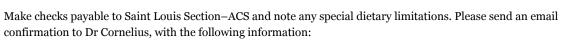
- o Dr. Benjamin Barth, Associate Professor, Chemistry St. Louis College of Pharmacy, and Chair, St. Louis Section–American Chemical Society
- **Opening Remarks and Award Presentation** • Dr. John Cooper, Professor and Chair, Department of Biochemistry and Biophysics, Washington University Medical School in Saint Louis
- Introduction of the Awardee
- o Dr. James Janetka, 2018 ACS St. Louis Section St. Louis Awardee, Associate Professor of Biochemistry and Molecular Biophysics, Washington University Medical School in Saint Louis

Award Address: Drugs: Overcoming the Resistance Please send reservations, including check, by October 30th to:

Jeffrey Cornelius

Department of Chemistry 1 Maybeck Place Principia College Elsah, IL 62028 phone: 618.374.5296; fax: 618.374.5122

email: jeff.cornelius@principia.edu



Name(s)

Special dietary limitations, if any _

Number attending ______ × (\$30 each, Regular ACS members and spouses, \$15 each Graduate and Undergraduate ACS members, \$60 each, non-members) = amount remitted \$_

For information on obtaining first time ACS Membership and a bonus offer connected to this event contact Brent Znosko at 314.977.8567 or brent.znosko@slu.edu Venue directions:

Glen Echo Country Club is in Normandy, in the southwest sector of the intersection of Natural Bridge Road and Lucas & Hunt Road. See map. Use either entrance:

1. Main entrance drive: turn west off Lucas & Hunt Road; Edison Avenue will be on the opposite side of the road almost adjacent to the entrance drive. Continue on the winding drive, and the parking lot will be on your right adjacent to the clubhouse. 2. back entrance: turn south off Natural Bridge Road onto St Marys Lane, just east of the post office. Continue through the gate, veer right, and park in front of the clubhouse.

Saint Louis Chemical Science & Technology Award - 2018 call for nominations

first published 31 August 2018

Nominate a member of your team for the Saint Louis Chemical Science & Technology Award. This award is 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 \$500 honorarium, and dinner for the awardee and a guest at the annual Recognition Night. The Due date is January 1, 2018.

You can find all the details on eligibility, nominating a candidate, and recent winners right here. To submit a nomination, email the Chemical Science and Technology Award Coordinator, David Rhee at david.wonjun.rhee@monsanto.com or call at 314-694-4874.



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 \$20 (\$10 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: Sep 13

Social hour, cash bar: 6:00 pm Call to order: 6:30 pm (Board Meeting suspended during dinner service) Future meetings: Oct 11, Nov 8

Maryville University

Seminars are approximately once a month on Thursdays, 4-5 pm. Details are available on the university's seminar page. All seminars are free and open to the public. Contact Jason Telford for more information.



Saint Louis University

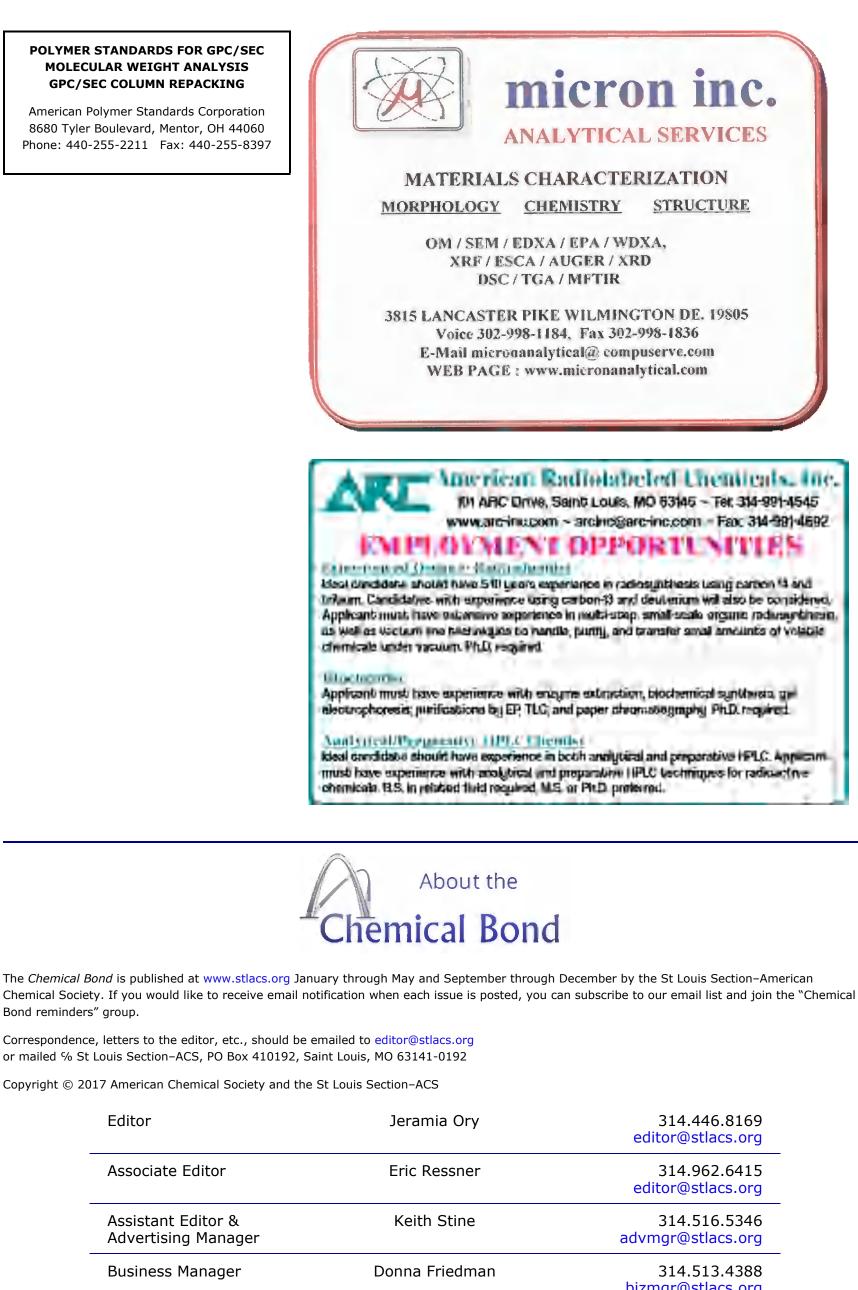
Seminars are generally on Fridays at 12 noon in Carlo Auditorium, Tegeler Hall, unless noted otherwise. Refreshments follow. For the most up-to-date information, refer to the department's seminar page or contact Brent Znosko, znoskob@slu.edu.

University of Missouri–St Louis

Mondays 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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