

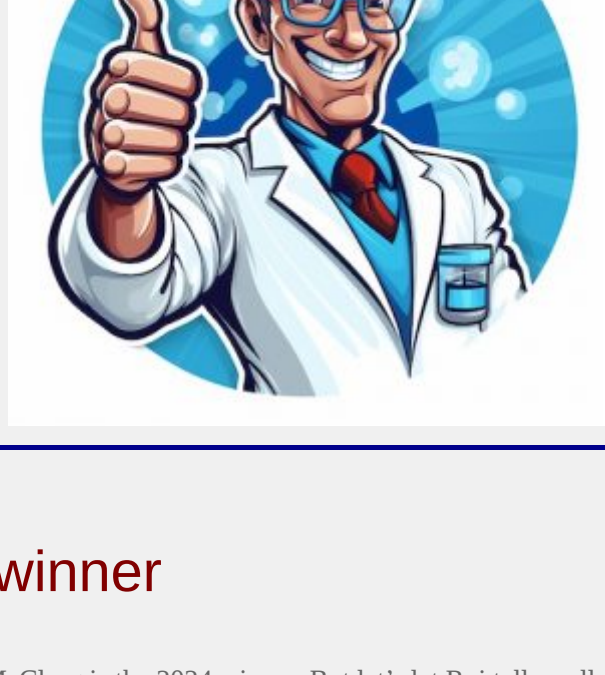
The Chemical Bond (Still) Needs You!

first published 5 January 2024

If you are someone who eagerly awaits the new issue of the Chemical Bond each month, you have probably noticed that our publication schedule has not been regular. If you keep an extra sharp eye on our web site, you may also notice that we no longer have an editor, but rather have an Interim Editor. If editing content, seeking out interesting stories about our chapter, and learning (or brushing up on) WordPress is something that appeals to you or someone you know, please reach out to editor@stlacs.org

Reaching out doesn't commit you. Let us answer any questions you might have and reassure you: this is a great way to get actively involved with the Section. Training will be available, and you will have back-up.

Your editing team,
Jeramia Ory, Interim Editor
Eric Ressler, Associate Editor



Joseph McClurg is Science & Technology award winner

first published 15 April 2024

Rui Tang, the coordinator for the Chemical Science & Technology Award, is happy to announce that Joseph P McClurg is the 2024 winner. But let's let Rui tell us all about it:

It is my distinct pleasure to announce the winner of 2024 American Chemical Society Chemical Science and Technology awardee, Joseph P McClurg. McClurg is a Senior Scientist in the Analytical Science section at Bayer Crop Science. Bayer is a global enterprise with core competencies in healthcare, nutrition, and high-tech materials.

Joseph joined the Analytical Science organization at Bayer Crop Science in June 2022 and swiftly exemplified the qualities of an exceptional scientist and mentor. He is a valued partner for the Product Supply organization, readily tackling complex technical problems and promptly delivering solutions. His natural communication style enables him to effectively collaborate with a diverse range of partners, including analytical chemists, manufacturing partners, regulatory team members, and leadership.

Before joining Bayer, Joseph had a successful career in the Pharma industry. He worked with teams of engineers, chemists, biologists, and clinicians to evaluate a variety of therapeutics. His work ranged from proprietary siRNA options, generating PD/PK data from rat/mouse plasma, to improving and inventing controlled substances and potent compounds. With his twenty-two years of analytical chemistry experience in pharmaceutical R&D, Joseph seamlessly transitioned his skills to the agriculture industry at Bayer. He continues to draw from his extensive experience to shape his problem-solving approach daily, serving as a constant teacher and example for others undergoing similar transitions.

Despite his wealth of experience, Joseph continually seeks to expand his knowledge. He regularly attends training sessions, seminars, and webinars to stay updated on new techniques and instruments in chromatography and mass-spectrometry.

Joseph is known for his easy-going nature, approachability, and willingness to help others. He annually volunteers in underserved international communities, helping to construct schools and community buildings. His strong moral center compels him to serve both his local and global communities.

Congratulations to Joseph on his well-deserved award and recognition!



Joseph P McClurg, 2024 Chemical Science and Technology awardee

Jaclyn Yetter Wins 2024 High School Chemistry Teaching Award

first published 23 April 2024

Ms Jaclyn Yetter of Whitfield School has been honored with the 2024 ACS St Louis Section High School Chemistry Teaching Award. With a career spanning over a decade, including distinguished roles at John Burroughs School, Ms Yetter's dedication to chemistry education is exemplary.

Ms Yetter's innovative teaching methods and passion for chemistry have inspired countless students throughout her tenure. Her leadership extends beyond the classroom, evidenced by her sponsorship of the You Be the Chemist club and her role as co-coach of the Science Olympiad Team, which achieved 3rd place in the state every year during her tenure from 2012 to 2015.

Furthermore, Ms Yetter has demonstrated a commitment to sustainability and environmental awareness through her involvement with the Cloud Club. She has also shown exemplary leadership as an elected member of the Faculty Executive Committee from 2014 to 2016.

Ms Yetter's success can be attributed to her key skills in troubleshooting, inspiring growth, effective communication, building community, being a valuable team member, adept time management, adaptability, and proficiency in remote learning environments.



Jaclyn Yetter, 2024 High School Chemistry Teacher awardee

Up your scientific social media game

first published 28 April 2024

A *Scientist's Guide to Social Media*, a virtual tutorial, is the first of the Local Section Leadership Series events for 2024. On Thursday, May 9, at 5 pm CT, we will welcome Professor Jennifer Heemstra to speak about her experiences with social media and provide some tips and tricks on how to grow your online reach within your professional community.

The virtual event will have national reach, but Heemstra is a local product: Professor of Chemistry at Washington University in St. Louis. She wrote the book in 2020 — actually a [long article \(open access\)](#) for *ACS Central Science* — with the same title as this tutorial.

If you would like to join us on Zoom for this virtual event, please [RSVP here](#). The meeting link will be emailed the day before the event. We look forward to connecting with you!



"Chemistry is pHun" checks in at end-of-season

first published 29 April 2024

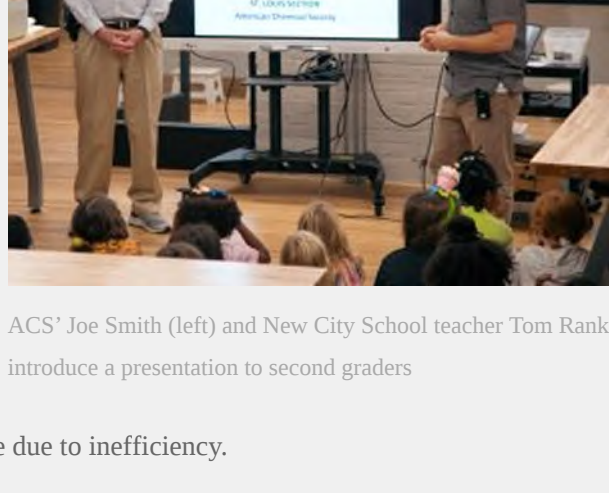
The 2023-2024 "Chemistry is pHun" outreach program sponsored by the St Louis Section-ACS wrapped up in April as summer break loomed over area schools. Partners in Education, a non-profit that does the substantial work of interfacing with schools on schedules and room reservations, facilitated 19 separate visits to 14 different schools in the Rockwood School District. This year, we added two visits to New City School in St. Louis. In total, we gave 37 presentations to 1,389 students, about equally divided between 2nd and 5th and (for New City School) 6th graders.

This year's program built on the demonstration activities used in previous years with some tweaks in discussing the results. Presentations to both grades began by discussing the diversity of STEM career opportunities. Safety was emphasized by having all presentation participants wear eye protection and by urging students to get adult assistance before experimenting at home.

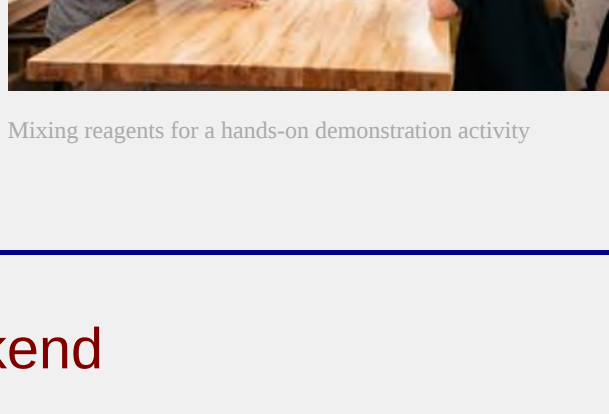
The presentation for second graders, entitled "Observing States of Matter", focuses on solids, liquids, gases, and plasmas, and on the role of energy transfer and chemical reaction in causing changes of state. This year, we gave greater emphasis to the energy flows that accompany changes of state. Handwarmers enable students to experience the heat given off during a crystallization reaction. We then discuss what happens when water is frozen in a freezer. The students have already learned that energy must be removed to freeze water. They are then challenged to think about where that energy goes. Students can be surprised to learn that a refrigerator warms up the kitchen when it emits the energy removed to keep the insides cool, plus a little due to inefficiency.

Fifth graders experienced a "Transforming Matter" presentation that introduces the concept of chemical reactions. We illustrate combustion and acid-base reactions. This year, we added a discussion of how scientists use models, *i.e.*, simplified representations of complex systems. [As in "Consider a spherical cow"? — Ed.] As a demonstration, we use a cup of water with an acid-base indicator and some vinegar as a "model stomach" with indigestion. We explore how discomfort can be relieved by adding sodium bicarbonate. We discuss how scientists use physical models (like our "stomach"), conceptual models, and computer models like those used to produce weather forecasts. Properly used, simple models can often yield useful insight into how more complex systems behave.

Hearing students' questions is a gratifying part of giving these presentations. This year, we heard the typical questions, *e.g.*, "How OLD are you?" and "How many years have you been a scientist?", some thoughtful questions, ("Have you ever regretted becoming a scientist?") and questions that verge on the profound: "Why does matter take up space?" Giving these presentations is an opportunity for retired professionals to introduce the idea of a STEM career to students in their formative years. If you are interested in participating in future programs, contact [Joe Smith](#).



ACS' Joe Smith (left) and New City School teacher Tom Rankin introduce a presentation to second graders



Mixing reagents for a hands-on demonstration activity

Recognition Night is just around the corner/weekend

first published 1 May 2024

Join Your friends: attend the Recognition Dinner!

Joseph P McClurg will receive the Chemical Science & Technology Award, and **Ben Outlaw** will be recognized for his Distinguished Service Award, long overdue plaudits from the COVID years. We also recognize **50- and 60-year ACS members** and past section chairs. **Dr Tabbetha Bohac** will deliver the traditional Immediate Past Chair's address.

The deets:
Tuesday, May 7, social hour beginning at 6:30 pm
Glen Echo Country Club
3401 Lucas & Hunt Road
Saint Louis, MO, 63121
tel.: (314) 383-1500

Everyone is welcome. There is a cost of \$30 per person except for honorees and their guests. Payment should be made to our Treasurer, Jeffrey Cornelius, using [PayPal](#) (enter details in the notes section) or by check payable to **St Louis Section-ACS**. Checks may be brought to the event or mailed to:

Jeffrey Cornelius
Department of Chemistry
1 Maybeck Place
Principia College
Elsah, IL 62028
(618)374-5296



Meeting & Seminars

Board of Directors

St Louis Section-ACS Board of Directors meets the second Thursday of each month. We hope to move back to in-person meetings in 2023, please check the meeting announcements.

Date: May 9th

Join internet meeting at 6:00 pm for social/chit-chat
Business meeting begins at 6:30 pm

Future meetings: September 12th, October 10th

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 [home page](#) and follow the link to the Seminar Schedule.

University of Health Sciences & Pharmacy in St. Louis

The Center for Clinical Pharmacology hosts a monthly seminar series in ARB 212 unless otherwise noted. For the most up to date information refer to the center's [seminar page](#) or contact [Jodi Maslin](#).

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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- Confocal Microscopy**
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TA Instruments TGA Q500 for Thermogravimetric Analysis
TA Instruments DSC Q2000 for Differential Scanning Calorimetry
- Surface Area and Pore Size Analysis**
Coulter SA3100 Surface Area and Pore Size Analyzer
- ICP-AES Analysis**
EDS, Energy-Dispersive X-ray Spectroscopy using 30mm² detector in Apreo 2 SEM
- Liquid Chromatography-Mass Spectrometry**
ThermoFisher Scientific TSQ Altis Triple Quad Mass Spectrometer equipped with Vanquish binary pump and Triplus autosampler

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