CHEMISTRY NEWS
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Council on Undergraduate Research

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Welcome from the Chemistry Division Chair

On behalf of your team of Division Representatives (formerly Councilors), greetings and welcome to a new semester to all the CUR Division of Chemistry members! We are excited to be starting a new academic year with plans to better facilitate engagement within our community and continue our mission to support high-quality mentored research (of all kinds!) in chemistry and Biochemistry. You can count on hearing from us several times a year via this newsletter, our website and blog, podcasts, and more (see below). Importantly, we would also love to hear more from you and include your ideas and successes in our communications!

As we look toward the future, there are several familiar and new, that members of our undergraduate research community face. One of our most urgent missions is to (re)connect with our various constituencies at different institution types to better understand the variety of issues faced by our community. Moving forward, we hope to align new CUR Chem initiatives with the specific needs and aspirations of our diverse membership.

Funding in an increasingly uncertain financial landscape is also under our microscope. We are setting up a diverse task force dedicated to broadly examining how undergraduate research in Chemistry and Biochemistry is funded. Additionally, in the wake of the recent US Supreme Court's Affirmative Action ruling, we are redoubling our efforts to support, facilitate, and develop implementable strategies for the equitable inclusion of students of traditionally marginalized identities in high-quality undergraduate research opportunities.

Finally, we want to engage with and hear from you! Join us on LinkedIn, visit our website, follow our blog for great content, and check our regular Chem4REAL Podcasts! We would love to hear from you with comments, ideas and / or collaborations on our blogs, podcasts, or even planning a session at ACS or BCCE! Leave us a note on LinkedIn, or better yet send us an email:

curchem@gmail.com

Through these efforts, your Chemistry Division Representatives seek to support our community as we strive together to provide for impactful, inclusive, well-funded, and potentially transformative research experiences for undergraduates in Chemistry and Biochemistry.

Best wishes for a great year!

Joe Reczek, Chair – Chemistry Division of the Council on Undergraduate Research

About CUR's Chemistry Division

The Chemistry Division of the Council on Undergraduate Research—the oldest and largest division of CUR—provides networking opportunities, activities, and resources to assist chemistry administrators, faculty members, students, practitioners, and others in advancing mentored undergraduate research.

Division Chair
Joe Reczek, Denison University

Division Vice Chair
Jennifer Morford, Franklin & Marshall University

Division Secretary

Sudeep Bhattacharyay, University of Wisconsin-Eau Claire

Newsletter Committee
Geneive Henry, Susquehanna University

Patricia Ann (Pam) Mabrouk, Northeastern University

Sarah Shaner, Southeast Missouri State University

A list of the Chemistry Division Representatives can be found here

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Musing on Mentoring

Lea Vacca Michel, 2023 ChemCUR Outstanding Mentor Awardee

I have been mentoring undergraduate research students since I started my protein biochemistry lab at Rochester Institute of Technology in 2009, but to be honest, I barely remember those first few years. I do remember a few things I did right. I created a set of lab modules to make sure all of my research students were well trained in basic biochemistry lab techniques and established a culture where the students and I were a team…where they developed ownership of their projects. They were the driver and I was there to teach them to drive.

I also remember some things that I did wrong. I waited for the students to come to me to join my research group. Don't get me wrong, I got some amazing students who were motivated and driven and who were critical in helping me establish my lab. But I know I missed out on some equally amazing students who either did not have the confidence to seek out a research experience or the understanding that the opportunity even existed.

I also mentored my first research student who was Deaf, and I was naïve enough to think that I could mentor that student the same way that I mentored my hearing students. This experience was…not great, not because of the student, but because I had no idea what I was doing and my existing approach did not serve their needs as a mentee. The student was able to complete their summer co-op successfully, but they still had to endure unnecessary challenges to get there. For me, the experience turned out to be life changing, as it motivated me to work on my mentoring skills, adapt my mentoring strategies to meet the needs of each individual student and to realize that I didn't have to know how to do everything right, but that I needed to be open to learning and changing.

As the years progressed, I learned valuable lessons about mentoring. Most of those lessons came from failures, some of which I realized on my own and some of which occurred when my brave students had the courage to *call me out* on my mistakes. Here are some of those lessons.

First, if you want a diverse and inclusive lab, you *need to work for it*. You need to recruit students with marginalized identities, because many of those students will not come to you. This strategy comes with risks, including tokenizing students for their identity. To avoid this, I recruit a very large (sometimes too large) group of students- that way, my students are rarely the *only one*. As a mentor, it is our job to take the time to get to know our students, meet them where they're at, to inspire them to learn, and value what strengths they bring to the table.

Second, never stop learning. As scientists, we value education and often quip about how getting our Ph.D. made us realize how little we actually know about our field of study. So, why would mentoring be any different? Mentoring is a skill, so it makes sense that we need to hone that skill with training, education, and experience. And, like in research, the process is not easy or quick, but there are many resources to help us be better, more inclusive mentors. We just need to be intentional and make it a priority.

And thirdly, sometimes we need to take *me* out of *mentoring*. It's not about us, it's about them. We will be better mentors if we take the time to understand our students. Their life experiences have shaped their characters. The more we know about our students, the better we can mentor them. I have found myself making assumptions about what is best for my students, but oftentimes it is more helpful to ask them what they need and go from there. Mentoring is not just about passing on our wisdom, it is a partnership where listening is often more important than lecturing.

I am humbled by the acknowledgment of my mentoring achievements by the Council on Undergraduate Research, but I also recognize that many mentors go unrecognized and underappreciated for their efforts, especially faculty with historically marginalized identities who take on disproportionate mentoring responsibilities. Mentoring is a critical part of increasing the diversity of the science community, a responsibility that can and should be shared by everyone.

Dr. Lea Vacca Michel is a Professor in the School of Chemistry and Materials Science at RIT. Her lab works on problems in the fields of protein biochemistry and structural biology. Since 2009, the Michel Group has trained over 100 undergraduate and masters students. In 2022, she was appointed Director of Diversity, Equity, and Inclusion

for the College of Science. She has received many honors, most notably and recently, the 2023 ChemCUR Outstanding Mentor Award from the Chemistry Division of the Council on Undergraduate Research.

Did You Know that Scholarship & Practice of Undergraduate Research (SPUR) is Going Electronic?

This fall marks the debut of SPUR as an electronic journal. SPUR is a CUR member benefit. CUR Chemistry Division Representative, Pam Mabrouk (Northeastern University) is the Editor-in-Chief. SPUR welcomes submissions for research studies on all forms and aspects of undergraduate research, scholarship, and creative inquiry across the disciplines year-round. There is an open call for proposals (deadline November 1) for contributions examining undergraduate research as a work readiness tool.

Did You Know CURChem Has a LinkedIn Group?

We would love to have you join us on LinkedIn! The group is open to all, so encourage your colleagues—graduate students, postdoctoral scholars, faculty, and administrators—to join our LinkedIn group. You are welcome to share your work with undergraduates; any questions you have about CUR; the teaching and practice of undergraduate research in chemistry such as links to useful articles, books, grant opportunities, information about undergraduate research conferences, symposia, journals; and so forth. If you are unfamiliar with LinkedIn, email Pam Mabrouk for a quick-start guide. We look forward to seeing you soon!

Have you Checked Out CURCHEM, Our Division's Blog Recently?

- Maximizing Research Productivity with PUI Collaborations
- Collaboration is key: Paul Wagenknecht – 2022 CUR Chemistry Mentor of the Year Award winner

Have you listened to the Chem4REAL Podcast?

The CUR Chemistry Division has a podcast! Chem4REAL: Research Engages All Learners is available on platforms such as Spotify and Apple Podcasts, but you can also listen and find transcripts for the episodes on the CUR Chemistry blog. There are over 25 episodes currently available that cover topics such as DEI, collaboration, and mentoring. Check out the back catalog and stay tuned for new episodes. Here is a preview of the fall schedule:

- **September –** Conversation on CUR Biology's Mentoring the Integration of Research into the Classroom (MIRIC) initiative
- **October –** Introducing new division representatives, new chair, new vice chair, and secretary
- **November –** Analyzing the impacts of international research experiences for students (IRES)
- **December –** ChatGPT - how does it impact UR?
- **January –** Co-ops and Industrial collaborations

If you have ideas for topics for future Chem4Real podcasts or would be interested in contributing to one, please email Vanessa McCaffery.

Upcoming Chemistry-Related Funding Programs and Deadlines

ACS Regional Meetings

- Midwest/Great Lakes Regional Meeting (St. Charles, MO) October 18-21
- Southeastern Regional Meeting (Durham, NC) October 25-28
- Southwest Regional Meeting (Oklahoma City, OK) November 15-18
- Northwest Regional Meeting (Pullman, WA) June 24-26, 2024
    - Sessions invited on CUREs

ACS National Meetings

Spring National ACS Meeting (New Orleans, LA) March 17-21, 2024, Abstract deadline: Oct 2, 2023

- CATL – Undergraduate Research in Catalysis (oral)
- CHED – Creating Communities in Undergraduate Research
- CHED – Undergraduate Research (oral)
- CHED – Undergraduate Poster Session
- GEOC – Undergraduate Research (oral)
- INOR – Undergraduate Research at the Frontiers of Inorganic Chemistry (oral)
- POLY – Undergraduate Research in Polymer Science (oral)
- PHYS – Innovative Teaching in Physical and Computational Chemistry (oral)

Other Meetings

- Biennial Conference on Chemical Education (BCCE) – University of Kentucky (Lexington, KY) July 28 – August 1, 2024, Deadline for symposia and workshop proposals November 10, 2023
- NCUR 2024 (Long Beach, CA) April 8-10, 2024, Abstracts open September 14, 2023 – December 8, 2023
- CONNECTUR Online June 20-21, 2024; Onsite University of Maryland College Park June 24-26, 2024

Upcoming CUR-wide events

October 2023

- What's on Track and What's Breaking Down? Doing an Implementation Assessment to Get Your Program Chugging Towards Its Goals. Wednesday, October 4, 2023 | 11:00 AM - 5:00 PM ET https://www.cur.org/what/events/institutes/whats_on_track_and_whats_breaking_down/
- Centering DEI: Practical Tools for Sustaining Transformative Racial Equity in Undergraduate Research Programs. Wednesday, October 18, 2023 — 11:00 AM-5:00 PM ET. https://www.cur.org/what/events/institutes/centering_dei_/

Grants and Funding Opportunities

American Chemical Society Petroleum Research Fund (8/14/23-9/14/23)

- New Directions (grants for faculty in PhD granting departments)
- Doctoral New Investigator (starter grants for new faculty in PhD granting departments)
- Undergraduate New Investigator (starter grants for new faculty at non-doctoral departments)
- Undergraduate Research (grants for faculty at non-doctoral departments)

National Science Foundation

- Science of Learning and Augmented Intelligence, full proposal target dates of 2/14/24 and 8/7/24

- Faculty Early Career Development Program (CAREER), full proposals due 7/24/24
- Chemistry Research Experiences for Undergraduates (REU), full proposals due 9/27/23 and 8/21/24
- International Research Experiences for Undergraduates Program (IRES), full proposals due 9/19/23 for Track-I and 9/26/23 for Track-II
- EHR Core Research Program (ECR), full proposals due 10/5/23
- Improving Undergraduate STEM Education (IUSE), full proposals due 3rd Wed. in January for Capacity Builing and Level 1 and 3rd Wed. Of July for Levels 2 and 3
- Graduate Research Fellowship Program (for doctoral students) 10/16-10/20 (date depends on division)
- Louis Stokes Alliance for Minority Participation (LSAMP) (11/3/23 for Bridge to Doctorate and 11/17/23 for STEM Pathways and Bridge to Baccalaureate)
- Division of Molecular and Cellular Biosciences Core Programs, proposals accepted anytime
- Historically Black Colleges and Universities – Undergraduate Program (HBCU-UP), Letter of Intent due 4th Tues. in July and full proposal due 1st Tues. in October for Research Initiation Awards
- Tribal Colleges and Universities Program (TCUP), 1/11/24 for Small Grants for Research
- Alliances for Graduate Education and the Professoriate (AGEP), AGEP Institutional Transformation Alliance (ITA) preliminary proposal due 2/13/24 and full proposal due 8/30/24; AGEP Catalyst Alliance (ACA) full proposals due 3/26/24 and 8/19/24

National Institutes of Health

- K series Research Career Development Awards, Standard due dates for new grant applications are 2/12, 6/12, and 10/12*
- R01 NIH Research Project Grant Program, Standard due dates for new grant applications are 2/5, 6/5, and 10/5*
- R15 NIH Research Enhancement Award (AREA and REAP), Standard due dates of 2/25, 6/25, and 10/25*
- R21 NIH Exploratory/Developmental Research Grant Award, Standard due dates of 2/16, 6/16, and 10/16*

*AIDS-related grant proposals have different due dates

Research Corporation

- Cottrell Scholar Award, the 2024 cycle will be open to faculty that started a tenure-track position in 2021, due July 2024

Dreyfus Foundation

- Camille Dreyfus Teacher-Scholar Award, open to faculty at PhD institutions appointed since 2018, due 2/1/24
- Camille Dreyfus Teacher-Scholar Award, open to faculty at PUIs in their 4-12th year, new announcement will be made in November 2023 for 2024 awards

U.S. Department of Energy

- Basic Energy Science (BES), applications accepted at any time.

Air Force Research Laboratory

- AFRL Funding Opportunities, a variety of opportunities are available.