

2024-2025 Elections Chemistry Division: Division Representative Candidates

Position Purpose: The work of Divisions is done by Division Representatives who advance undergraduate research by providing networking opportunities, activities, and educational content. Their aim is to create and foster community and value within the organization. Representatives support the members of their division in activities and programs that align with the CUR strategic plan, mission, vision, and values.

Needed Qualifications:

- Capable mentor: Experienced guide and supporter of others looking to advance their personal growth and development in areas connected to but not limited to UR.
- Communication: Professional and effective communicators, experienced in difficult conversations and able to hear and disseminate community needs
- Collaborative Spirit: Team players making space for all voices to be heard, furthering the collective understanding of the group, and cultivating outcomes to best serve CUR and its membership

There are 7 individuals running.

You may vote for all candidates presented to be elected as representatives for this division. This division will also be accepting write-In candidates for this election cycle.

Candidate information is presented on the following pages. Click on each candidate name below to be taken to their Information In the document.

- <u>Cheri Barta</u>
- Douglas Masterson
- Evelyn Boyd
- <u>Hanae Haouari</u>
- Jacob Lutter
- Kari Stone
- <u>Sudeep Bhattacharyay</u>

Chemistry Division Nominee

NOMINEE STATEMENTS

Please comment on your involvement in undergraduate research activities in the context of your institution and its mission.

Most of my career has been centered on supporting and promoting undergraduate research activities. After completing a PhD in chemistry and a post-doc in pharmaceutical sciences, I accepted a faculty position at the University of Nebraska-Kearney. I enjoyed teaching chemistry, but loved working with undergraduates in my research lab even more. I was lured away in 2011 to the University of Wisconsin-Madison as the Director of Undergraduate Research (UR) for the Department of Chemistry. In this role, I oversaw the UR Office where we engaged ~120 undergraduates/semester in chemistry UR. I also met with many more undergraduates interested in conducting research in the STEM fields, developed and implemented research curriculum/policies, and directed the administrative aspects related to UR. In 2024, I accepted the role of Director of Experiential Learning in the Division of Diversity, Equity, and Educational Achievement at UW-Madison. This roles allows me to continue my work in supporting undergraduate research, with a particular focus on serving students that have historically been underrepresented in high-impact practices at higher-ed institutions.

In what ways have you helped promote diversity and inclusion in URSCI?

Soon after starting at the UW-Madison, I organized a recruiting program called CHOPs which served to recruit students with underrepresented backgrounds in the chemical sciences into graduate programs. The success of CHOPs has directly resulted in an increase in diversity within our graduate program. In conjunction with CHOPs, a peer-mentoring program called Catalyst was developed by myself and my co-worker, Desiree Bates. Funded by PPG, P&G and DOW, this program has increased the retention and persistence of graduate students with historically underserved backgrounds. The increase of diversity within our graduate student program has allowed for undergraduate researchers to be paired with diverse mentors who may have similar backgrounds, lived experiences, and/or career aspirations. These two programs have been highlighted in the Journal of Chemical Education and contributed to being awarded the Regents Diversity Award in 2020.

I have also been an active member of the Community, Diversity, Equity and Inclusion committee where I served as the liaison for undergraduate education. Additionally, I co-chaired the faculty mentoring sub-committee and was a member of the retention and recruitment action team in the chemistry department at UW-Madison. I'm also heavily involved in supporting effective and inclusive mentored research experiences. As suggested in literature, the quality of mentoring an undergraduate receives has a large impact on their retention and persistence in the chemical sciences. Thus, I am enthusiastically dedicated to hosting several mentoring workshops throughout the year for faculty, staff and graduate students where tools for inclusive mentorship are discussed in a direct effort to provide a supportive environment for all undergraduate researchers.

In my current position in the Division of Diversity, Equity, and Educational Achievement, my central role on campus is to broaden participation and increase access to high-impact practices (HIPs) for all students. This work aligns with my commitment towards reducing/eliminating barriers that historically have prevented students from underrepresented backgrounds to engage in HIPs, such as undergraduate research, by cultivating an environment and implementing scaffolds that are inclusive and accessible to all.

How do you anticipate your skills will help successfully uphold the Division Representative charge?

I have a wealth of experience collaborating and supporting the strategic missions of several other professional organizations. I will use these experiences to guide my involvement within CUR. As an example, I'm an active American Chemical Society member. Presenting at and regularly attending ACS meetings has allowed me to stay up to date in the latest advanced and best practices in undergraduate research. Involvement both nationally and at the local level has also been instrumental in making connections and establishing active networks that have provided an abundance of resources and a support network in the area of UR. As an example, a summer scholarship to support UR at the local ACS section level was instated due to the networks that have been established through my involvement.

As an active facilitator for CIMER, I've had the opportunity to meet several undergraduate and graduate research directors across the United States as they develop curriculum for their individual institutions. My contributions to this work are included in the second edition of the book 'Entering Research'. I also facilitate a handful of mentoring workshops every year using the CIMER/NRMN curriculum where I have been able to support the growth and development of graduate student, postdoc, staff scientist and faculty mentors. I anticipate my involvement in CIMER to continue and am looking forward to interacting with many more undergraduate research directors and mentors as we continue to develop mentoring practices and effective curriculum that actively supports UR. Additionally, one of my favorite activities is attending and participating in the NCUR conferences. Actively supporting undergraduate researchers as they present for their first time, helping students navigate their way into the next stage of their career, or guiding folks to summer research opportunities has been a highlight. Involvement through the CUR organization has also been instrumental in my professional growth. I've attended several CUR panels and workshops, thoroughly enjoyed the Chem4REAL podcasts, and have gained valuable insights by serving as a divisional representative for the Chemistry Division. I'm excited to share all these experiences with the CUR community.

If you have served a previous term as Division Representative (previously Division Councilor), are there any particular contributions during your previous term(s) that you would like to highlight?

It has been an honor to be one of the Chemistry Division Representatives for the past three years. During this inaugural term, I gained an appreciation for the structure, culture and the processes within CUR. I'm excited to apply this knowledge to actionable items for the next term. Two of my main contributions for the past term include: (1) Generating a podcast for Chem4REAL titled, "Is Undergraduate Research a Victim of its own Success?" and (2) Being an active member of the Chemistry Outstanding Mentorship Awards Committee where we successfully promoted the award, selected awardees, and adapted the award criteria to be better aligned with the vision and mission of CUR.

Douglas Masterson, The University of Southern Mississippi

Chemistry Division Nominee

NOMINEE STATEMENTS

Please comment on your involvement in undergraduate research activities in the context of your institution and its mission.

Since joining the faculty at the University of Southern Mississippi (USM), an R1 institution, in 2004, I have prioritized mentoring undergraduate students in organic chemistry research. I have mentored over 40 undergraduates in my laboratories, many of whom have co-authored peer-reviewed publications, presented their work at conferences, and received awards. To date, 18 of my publications include at least one undergraduate co-author.

Beyond individual mentorship, I contributed to undergraduate research initiatives by serving on the inaugural steering committee for USM's Undergraduate Research Center (URC). My service included mentoring students, hosting workshops on applying for research funding, and reviewing grant applications, which allowed me to engage with student researchers and student creatives across campus. I also ensured all undergraduate researchers under my guidance presented their work publicly to develop their professional skills.

In 2008, I introduced the American Chemical Society (ACS) Project SEED program to USM, where I continue to serve as site coordinator and research mentor. This program has supported high school students, many of whom later enrolled at USM, in continuing their research. SEED students in my lab have co-authored publications and excelled in science fairs. Nationally, I serve on the ACS Project SEED committee, helping shape the program's future. Additionally, I received the Science Advocate award from the Society for Science for three consecutive years in recognition of mentoring high school students in science fairs and competitions.

Through these multifaceted roles, I have consistently demonstrated my commitment to fostering the next generation of student scholars, making undergraduate research an integral part of my professional service.

In what ways have you helped promote diversity and inclusion in URSCI?

As a Cherokee tribal member and first-generation college graduate, I am deeply committed to fostering diversity and inclusion in undergraduate research. At the University of Southern Mississippi (USM), our undergraduate student body reflects the demographic diversity of Mississippi, with 27% identifying as Black or African American, 5% as Hispanic/Latino, and 62% as female. Additionally, 21.5% of our students are first-generation, and 41% are Pell Grant eligible.

In my introductory chemistry course for majors, I emphasize undergraduate research as a high-impact practice that enhances career goals and academic success. I meet individually with each student to discuss their aspirations and help them connect with research mentors, encouraging them to start their research journey as early as their freshman year.

Understanding the unique challenges faced by first-generation and economically disadvantaged students, I personalize my outreach by sharing my own experiences as a first-generation student and the transformative impact of experiential learning on my education. To lower barriers to participation, I personally invite students

to shadow researchers in my laboratory, giving them a low-pressure opportunity to explore research as a possibility.

My long-standing involvement in the ACS Project SEED program and as a science advocate with the Society for Science has further strengthened my efforts to promote diversity in research. Through these programs, I have mentored students from underrepresented and socio-economically disadvantaged backgrounds, providing them with meaningful research opportunities and guidance. These initiatives have been central to my service activities, ensuring that students from all backgrounds have access to transformative research experiences.

By actively promoting diversity and inclusion in undergraduate research, I aim to empower students from all walks of life to realize their full potential.

How do you anticipate your skills will help successfully uphold the Division Representative charge?

The charge for Division Representatives aligns closely with the skills and experience I have cultivated since joining the University of Southern Mississippi in 2004. I am a steadfast advocate for undergraduate research as a transformative, high-impact practice that enhances student learning and success.

As a research mentor, I have guided numerous undergraduate and high school scholars, as well as graduate students, in their research journeys. My dedication to mentorship has been recognized through multiple awards, including the Donal Drapeau Undergraduate Mentorship Award (2015), the USM Graduate Student Mentorship Award (2015), and the Conference of Southern Graduate Schools Achievement Award (2016). This commitment to fostering growth and excellence in research will be central to my service as a chemistry divisional representative.

In addition to mentorship skills, I bring expertise in developing educational content that engages students and integrates real-world research into the classroom. By incorporating findings from my laboratories and showcasing the contributions of undergraduate researchers, I inspire students to see themselves as active participants in the scientific enterprise. I emphasize the value of generating new knowledge through the scientific method and encourage all students to contribute to this endeavor.

Beyond the classroom, I actively work to connect students with peers, research mentors, and opportunities to broaden their academic and professional networks. My skills include creating freely available online resources to promote undergraduate research and facilitate student engagement.

These skills—in mentorship, educational innovation, and community building—equip me to uphold the divisional representative charge and advance undergraduate research as a cornerstone of student success.

If you have served a previous term as Division Representative (previously Division Councilor), are there any particular contributions during your previous term(s) that you would like to highlight? N/A

Douglas Masterson

NOMINEE STATEMENTS

Please comment on your involvement in undergraduate research activities in the context of your institution and its mission.

My institution has recently joined CUR with an institutional membership. We are working on expanding our undergraduate research offerings. My dissertation was on the opportunities and barriers science students face when entering undergraduate research and I have hosted workshops at my institution to discuss how to lower the barriers and improve the accessibility of undergraduate research. I currently serve as the mentor to three undergraduate research students, all of which will have at least one major conference presentation and contributions towards at least one publication.

In what ways have you helped promote diversity and inclusion in URSCI?

The majority of my research has been dedicated to promoting the access of undergraduate research experiences in chemistry and the sciences more broadly. I have presented on these topics at conferences and led workshops where ways to improve the accessibility of research spaces was discussed. I am committed to changing and developing undergraduate research experiences such that every student has the opportunity to participate if they so choose.

How do you anticipate your skills will help successfully uphold the Division Representative charge?.

I am very familiar with the education research space surrounding undergraduate research. I am confident that as a division representative, I would advance undergraduate research in chemistry spaces by promoting collaboration and networking across disciplines and improving experiences so our students can most be successful.

If you have served a previous term as Division Representative (previously Division Councilor), are there any particular contributions during your previous term(s) that you would like to highlight? N/A

Hanae Haouari, New Jersey City University

Chemistry Division Nominee

NOMINEE STATEMENTS

Please comment on your involvement in undergraduate research activities in the context of your institution and its mission.

As a faculty member at NJCU, a Hispanic-Serving Institution (HSI), I have had the privilege of mentoring numerous students through the NJCU Summer Internship Program and academic-year research initiatives, such as the Chemical Research course (CHEM 493) offered each semester. Many of my mentees come from underrepresented minority backgrounds, and supporting their growth in STEM has been one of the most rewarding aspects of my academic career. I actively identify students in my courses who demonstrate potential and encourage them to engage in undergraduate research early in their academic journey. To foster interest and participation, I conduct in-class presentations to introduce students to research processes, share available opportunities, and highlight the success stories of past student researchers.

Additionally, I provide personalized one-on-one consultations to explore students' academic interests and match them with relevant research opportunities and faculty mentors. My past student researchers have gone on to graduate school or careers in industry, with all of them achieving success in their chosen fields. I am a strong believer in celebrating student achievements and consistently nominate them for research presentations, poster sessions, and awards at regional or national conferences to build their confidence and professional exposure. By integrating classroom engagement, personalized mentoring, and institutional outreach, I strive to enhance students' academic success while reinforcing the critical role of undergraduate research as a cornerstone of their educational experience.

In what ways have you helped promote diversity and inclusion in URSCI?

At NJCU, I have successfully fostered a culture of research and collaboration among a diverse student body, many of whom are first-generation college students. My experience mentoring students in research, both during summer internships and academic-year courses, has equipped me with effective strategies to support students from underrepresented backgrounds in STEM. By creating inclusive research opportunities and promoting active engagement, I have helped students gain confidence, develop critical thinking skills, and prepare for successful careers or advanced studies. Additionally, my experience leading initiatives like the NJCU STEM Alumni Speaker Series demonstrates my ability to create networking and educational opportunities that build a sense of community. Collaborating with NJCU STEM alumni, faculty, and student organizations, I have facilitated events that connect students with industry professionals, showcase emerging trends, and highlight diverse career pathways. As part of this effort, I invite NJCU STEM alumni from minority backgrounds to share their career journeys, inspiring current students to envision their own success. These skills enable me to support CUR division members in activities and programs that align with CUR's mission, vision, and strategic plan. My commitment to equity, active learning, and community-building will help advance undergraduate research, foster collaboration, and enhance the value and impact of CUR within our academic community.

How do you anticipate your skills will help successfully uphold the Division Representative charge?

My experience in mentoring, program development, and community-building equips me to provide impactful networking opportunities, activities, and educational support within the CUR organization. By leading initiatives like the NJCU STEM Alumni Speaker Series, I have successfully connected students with industry professionals

and highlighted diverse career pathways, fostering a sense of community and inspiration. My ability to collaborate with alumni, faculty, and student organizations ensures the creation of meaningful events that align with CUR's mission to advance undergraduate research. Additionally, my commitment to equity and cultural competency enables me to design inclusive programming and workshops that reflect CUR's values. Through these efforts, I can foster a supportive and engaging environment that strengthens connections among CUR members, promotes collaboration, and enhances the value of undergraduate research.

If you have served a previous term as Division Representative (previously Division Councilor), are there any particular contributions during your previous term(s) that you would like to highlight? N/A

Jacob Lutter, University of Southern Indiana

Chemistry Division Nominee

NOMINEE STATEMENTS

Please comment on your involvement in undergraduate research activities in the context of your institution and its mission.

Our university's mission statement describes The University of Southern Indiana as "an engaged learning community advancing education and knowledge, enhancing civic and cultural awareness, and fostering partnerships through comprehensive outreach programs. We prepare individuals to live wisely in a diverse and global community." My role as an Assistant Professor of Chemistry includes managing an active undergraduate research program that aligns with this mission. Since my arrival in 2022, my group has grown to six concurrent members that span freshman through senior cohorts, fostering a small engaged learning community. These students directly participate in the synthesis and characterization of compounds that contain trivalent lanthanide ions with an emphasison their structure and luminescent properties. We collaborate with scientists at Purdue University, the University of Michigan, and the Centre Nationale de la Recherche Scientifique-Orleans campus to accomplish our research aims. So, the students are exposed to a global community not only through these collaborations but also via attendance at annual American Chemical Society National Meetings. Students also have the opportunity to present their projects in poster format at these meetings.

In what ways have you helped promote diversity and inclusion in URSCI?

There a few avenues that I use to promote diversity and inclusion. The first is my location in Evansville Indiana. This area serves a largely rural community that would otherwise not have access to STEM opportunities. Another is my role on the executive board for the IN–KY Border Local ACS section. We host annual events in February for Black History Month that celebrate black chemists and in March for Women in Chemistry. These events are typically panels that raise awareness and provide role models for these underrepresented groups in our student body. I also perform demo shows routinely at local schools and events that can spark interest in chemistry. In addition, the Pott College of Science, Engineering, and Education works with the Panamanian Government to set up a pipeline for students to earn their degree at USI. A notable portion of these students are in the Department of Chemistry and Biochemistry. Lastly, the research opportunities I provide do not require much of a background in chemistry to become engaged. As a result, I can offer opportunities to researchers across a wide variety of backgrounds ranging from high school students to veteran undergraduates.

How do you anticipate your skills will help successfully uphold the Division Representative charge?

I can uphold this charge via several connections I have built over my career. I am an active member of the American Chemical Society on both a local and national scale. I am on my local section's executive board and the current advisor for my department's student chapter. Plus, I send students to national meetings to present posters on their research progress. In addition, I attend webinarsoffered by the Division of Inorganic Chemistry that are shared as recordings to students. I am also a member of IONIC VIPEr, a national organization of Inorganic Chemists. The connections I have built in this community have been valuable for the advice and easy connections I can bring to my students. In fact, the lab experience I provide in my Inorganic Chemistry class was partially built upon the recommendations of experienced instructors. Finally, my research career has opened doors for networking at numerous institutions both domestic and international. My students have access to connections at large institutions such as Purdue University orthe University of Michigan, as well as potential international connections via CNRS or other institutions that participate in my field of research.

If you have served a previous term as Division Representative (previously Division Councilor), are there any particular contributions during your previous term(s) that you would like to highlight? N/A

NOMINEE STATEMENTS

Please comment on your involvement in undergraduate research activities in the context of your institution and its mission.

I have been teaching and mentoring research projects with undergraduates for 15 years. As a faculty member on the tenure-track at Lewis University, a framework for how I conduct my professional obligations is succinctly summarized in the teacher-scholar model. This framework describes how scholarship and service informs my teaching and that teaching informs scholarship and service as they are tightly integrated. The best way to practice this framework is to design a research-rich learning environment no matter the academic level of the student. A research-rich learning environment promotes inclusion as the theme of my instructional approach. The purpose is to involve ALL students in scholarly pursuits.

In what ways have you helped promote diversity and inclusion in URSCI?

Research and scholarly activities are the distinctive characteristic of a tenure-track professorship. I am an advocate for course-based undergraduate research experiences (CUREs). It is a strategy that is known to be more equitable and inclusive by immersing students in research experiences in the laboratory courses that they are enrolled in eliminating the barriers of participating in these experiences due to time and financial concerns of students.

How do you anticipate your skills will help successfully uphold the Division Representative charge? As a CUR representative, I have been involved in the Chem4Real podcast and organizing ACS symposia. I plan to continue these activities to support the mission of CUR.

If you have served a previous term as Division Representative (previously Division Councilor), are there any particular contributions during your previous term(s) that you would like to highlight? As a CUR representative, I have been involved in the Chem4Real podcast and organizing ACS symposia.

Sudeep Bhattacharyay, University of Wisconsin-Eau Claire

Chemistry Division Nominee

NOMINEE STATEMENTS

Please comment on your involvement in undergraduate research activities in the context of your institution and its mission.

I have been involved in undergraduate research ever since I joined UW-Eau Claire, with an overarching goal has been to maximize research opportunities for undergraduates. I initiated a research program with a focus on students' learning and growth. Although my research lab focuses on the computational aspect of chemistry, the projects contain interdisciplinary elements across biology, physics, mathematics, and computational science. As a result, students can contribute to these projects according to their interests. I employ a well-structured mentoring plan to train undergraduate researchers. In the early phase, the student starts working with a senior student to learn the basic tools of conducting research. In the later phase, experienced students are allowed to design a project that suits their interests. Once students make significant progress in their research projects, they are directed to compile their research results and write a thesis or manuscript for departmental honors and peer-reviewed publications in scientific journals. Since expanding undergraduate research is one of the strategic goals of UW-Eau Claire, I have also been involved in designing and implementing course-embedded research in the biophysical/physical chemistry course. Many of these curriculum-based course-embedded research projects resulted in peer-reviewed publications with student co-authors.

In what ways have you helped promote diversity and inclusion in URSCI?

Being involved with undergraduate education, one my earnest efforts has been to promote diversity, inclusion, respect, and equity (DIRE) in Undergraduate Research, Scholarship and Creative Investigations (URSCI). My core research group has been diverse in terms of gender, race, sexuality, and ethnicity. Additionally, through diversity mentoring internal research grants, I have encouraged students to initiate research as a tool to learn. I am fortunate to have mentored several students of diversity in active research throughout my last 15+ years. My research students have taken an active role in advancing the education for students of color, gender, with a disability, and LGBTQI+. The activities include group discussion about the role of scientists in promoting equity, diversity, and inclusion; creating protocols for visually impaired students; and recruiting and retaining students of underrepresented groups. My working experience with these talented individuals reaffirms the faith that a compassionate research environment starts at the undergraduate level, whose values are carried forward.

As a group, we discuss the DIRE issue during our research group meetings each semester. We keep a session or two to discuss current events and general issues and discuss the role of scientists and educators towards society in general. In this regard, our research group has adopted a policy to add a small section at the end of each research presentation reminding the audience of our obligations to uphold the values of DIRE within the scientific community and beyond. We also adopted to add the UW-Eau Claire's land acquisition statement on each poster/seminar we present. In classroom-embedded research too, these core principles are taught to students for writing and presenting purposes.

How do you anticipate your skills will help successfully uphold the Division Representative charge?

I have good organizing skills and can organize task force and groups to conduct activities. I am enthusiastic about podcasting and helping in Scholarship and Practice of Undergraduate Research (SPUR) journal. I can help by promoting mentoring successes of undergraduate research and creative activity.

If you have served a previous term as Division Representative (previously Division Councilor), are there any particular contributions during your previous term(s) that you would like to highlight?

I have been involved in CUR-CHEM podcast team (Chem4REAL), besides helping in general planning in the podcasts, I also took part in two podcasts:

"Is Undergraduate Research a Victim of Its Own Success" April 15, 2023 "Blooming Al" January 20, 2024

In Fall 2024, I also co-organized a symposium, with Dr. Reczek (Chair, CUR-CHEM) within American Chemical Society's division of Chemical Education, entitled "Engaging (broadly) with AI in Carrying Out Research and Research Training with Undergraduate Students"