

ALUMNI NEWSLETTER

CU Denver
Chemistry Department
Fall 2025

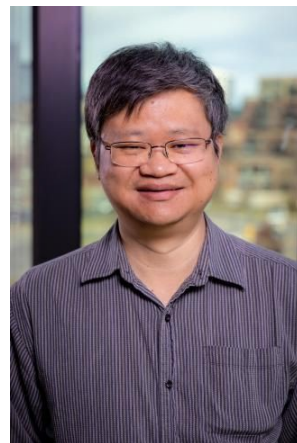


A Word from the Chair

Dr. Hai Lin, Professor of Chemistry

It has been a year since the publication of the last Alumni Letter. There have been many changes to the department. In this issue of newsletter, we listed the college/university awards, national recognitions, external grants, and publications of our faculty, staff, and students. Please see the following pages for details. Here is just a quick summary.

In 2025, we said farewell to Dr. Xiaotai Wang, Dr. Marta Maron, and Ms. Catherine Rathbun, who retired or relocated out of Colorado. Dr. Jefferson Knight became the director of the university's Office of Undergraduate Research & Creative Activities (URCA). Many thanks to the lecturers and GPTIs (graduate students as part-time instructors) who are now teaching for the department. Together with the full-time faculty and staff members, they work tirelessly to provide the best educational experience for our students. I am also deeply grateful to our TAs, LAs, and graders, whose everyday hard work is indispensable to the successes of our students. Thank you so much!



Our Biochemistry BS program has been one of the fastest growing majors in CU Denver in the last five years, and it continues to grow. The department carries on restructuring and reforming curricula for lectures and labs. The overhaul of the General Chemistry 1 labs is one major thrust, which is led by Dr. Priscilla Burrow and Dr. Doris Kimbrough. The newly established Senior-TA position significantly improves the lab teaching and learning for large-enrollment lab courses. Another important direction is our Data Science in Chemistry program, headed by Dr. Scott Reed and Dr. Woonghee Lee. Artificial intelligence and machine learning are now integrated in the curricula of many upper-division and graduate chemistry courses, preparing our students for careers in today's job market.

The department continues to excel in research. Dr. Liliya Vugmeyster and Dr. Jung-Jae Lee received new research grants from NIH and Cancer League of Colorado. Dr. Susan Schelbe was elected an ACS Fellow, Dr. Hai Lin received the ACS Colorado Section Award, Dr. Scott Reed was selected as a Fulbright Scholar, Dr. Haobin Wang was named a Romberg Visiting Professor of Heidelberg University, Germany, Dr. Emilie Guidez won a Phi Kappa Phi "Love of Learning" Award, and Dr. Woonghee Lee was a recipient of the BKI Early Career Award of Korean Magnetic Resonance Society. Moreover, Dr. Haobin Wang and Dr. Woonghee Lee are among the top 2% highly cited scientists in 2025. Since the publication of the last Alumni letter, our faculty have published >25 peer-reviewed articles and given numerous presentations in international, national, and regional conferences and seminars. Very recently, the department established the Center for Advanced Computational Molecular Science.

Importantly, many undergraduate and graduate students participated in the research, which has been a tradition and a strength of the department. Through their hard work, many students earned authorships in peer-reviewed publications, presented in professional conferences, and received distinguished recognitions. For example, undergraduate student Dagoberto Grijalva-Flores received Best Poster Awards at both the National Organic Symposium and the SACNAS NDiSTEM Conference this year. All these speak volumes for the excellence of research in the Chemistry Department.

Alumni can play important roles in students' career development. This past November, the Chemistry Club, advised by Dr. Kyoung Nan Kim, hosted by Zoom a virtual "The Future is Now: Casual Health Career Talk". Among the panel speakers were CU Denver alumni Breanna Ahrens and Yonatan Kramer. They met the current students who are interested in pursuing health careers and answered their questions. In the future, we hope to have more activities with our alumni. We are eager to learn about how you are doing. Please share your news with us!

Thank you for reading and for your continuous support to the department!



Student Awards (2025)

- **Hudson Neyer**, ACS Undergraduate in Analytical Chemistry, 2025
- **Dien Thinh Nguyen**, ACS Undergraduate in Inorganic Chemistry, 2025
- **Dagoberto Grijalva-Flores**, ACS Undergraduate in Organic Chemistry, 2025
- **Stephanie Hanson**, ACS Undergraduate in Physical Chemistry, 2025
- **Dagoberto Grijalva-Flores**, Robert Damrauer Scholarship, 2025
- **Chloe Evan-Whitley**, Douglas Dyckes Scholarship, 2025
- **Katie Schultz**, Marti Barrett Scholarship, 2025
- **Collin Bachman**, Michael Milash Teaching Award, 2025
- **Whitney Fosu**, Outstanding General Chemistry Award, 2025
- **Ameen Hanish**, Outstanding Organic Chemistry Award, 2025
- **Dien Thinh Nguyen**, Outstanding Inorganic Chemistry Award, 2025
- **Hudson Neyer**, Outstanding Analytical Chemistry Award, 2025
- **Danniell Isaac**, Outstanding Biochemistry Award, 2025
- **Bailey Fraizer**, Outstanding Graduating Biochemistry B.S. Student, 2025
- **Keith McGee**, Outstanding Graduating Chemistry M.S. Student, 2025

Student Awards (2025, cont.)

Julia Roma, CU Denver CLAS Office of Research and Creative Activities Travel Award, 2025
Dagoberto Grijalva-Flores, SACNAS NDISTEM Conference Best Poster Award, 2025
Yasmine Barache, Winner of student poster competition, Rocky Mountain Regional Meeting, 2025
Yasmine Barache, CU Denver CLAS Office of Research and Creative Activities Travel Award, 2025
Dagoberto Grijalva-Flores, SACNAS NDISTEM Conference Travel Scholarship, 2025
Dagoberto Grijalva-Flores, ACS Colorado Section Student Travel Award, 2025
Dagoberto Grijalva-Flores, National Organic Symposium Best Poster presentation, 2025
Dagoberto Grijalva-Flores, National Organic Symposium Travel Award for Undergraduate Students, 2025
Keith McGee, National Organic Symposium Travel Award for Graduate Students, 2025
Dagoberto Grijalva-Flores, CU Denver CLAS Office of Research and Creative Activities Travel Award, 2025
Vi Tho Nguyen, RiboClub (RNA Canada) Student Travel Award, 2024

Fall 2024 and Spring 2025 Graduating Students

Kida Benkers, Carlos Cuevas, Zachary DuBois, Jasmine Alaysia Dunning, Vida Elekovic, Dylan Gampu, Samantha Martinez, Mary Melville, Elizabeth Ortega, Travis Rankin, Milka Tesfazion, Adam Ali, Meghan Mitchell, Alexie Cushing, Bailey Frazier, Thomas Howell, Angela Nguyen, Maria Ulnagan, Ash Schmitt, Kevin Quinones, Phuc Huynh Hong Ngo, Santiago Lanchipa Mejia, Jake Lough, Emmanuel Onrubia, Matthew Fultz, Mindy Blas, Shannon Henderson, Nohemi Marquez-Garcia, Kevin Lowder, Thomas Cooper III, Nala Fakhro, Daniell Isaac, Edward Hooton, Hudson Neyer, Maria Prosperi, David Soto, Brody Reynolds, Upasana Shrestha, Moriah Miles, Sree Lalam, Hai Pham

Faculty Awards (Since Fall 2024)

- **Susan Schelble**, American Chemical Society Fellow, 2024
- **Hai Lin**, American Chemical Society Colorado Section Award, 2025
- **Pamela Nagafuji**, CLAS Outstanding Community Engagement Award, 2025
- **Haobin Wang**, Romberg Visiting Professor of Heidelberg University, 2025
- **Scott Reed**, Fulbright Scholar, 2025
- **Woonghee Lee**, BKI Early Career Award of Korean Magnetic Resonance Society, 2025
- **Emilie Guidez**, Phi Kappa Phi "Love of Learning" Award, 2025

Family photo: Chemistry faculty and staff members at the 2025 departmental student award ceremony. From left: Front-row: Emilie Guidez, Marino Resendiz, Amelia Tubbs; Mid-row: Nick Fisk, Doris Kimbrough, Haobin Wang, Hai Lin, Niki Shoup; Back-row: Nan Kim, Marta Maron, Jung-Jae Lee, David Schubert, Laura Cuellar, Sue Schelble, Woonghee Lee, Abigail Chiu, Pam Nagafuji, Cathy Rathbun; Absent: Aml Alnaas, Nara Chon, Damian Dunford, Jeff Knight, Yong Liu, Colin Mant, Scott Reed, Liliya Vugmeyster.



Chemistry Club hosted Pre-Health Alumni Career Talk

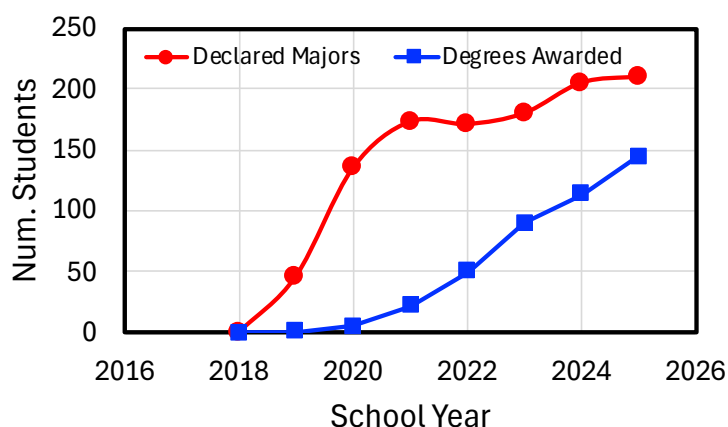


On November 20th, 2025, the Chem Club hosted a Pre-Health Alumni Career Talk. The event was a great success, bringing together students for an hour of open, engaging discussion with our CU Denver alumni **Breanna Ahrens** (BS Chemistry and BS Biochemistry 2023) and **Yonatan Kramer** (BS Biology 2020).

Breanna, currently a first-year student at Western University of Health Sciences, and Yonatan, currently a second-year medical student in Rocky Vista University, shared valuable insights into their academic journeys, medical school experiences, and professional perspectives. Students had the opportunity to ask questions, join breakout-room conversations, and hear honest reflections on topics such as coursework, burnout, work-life balance, and deciding on a career path. “The atmosphere was relaxed and supportive,” said **Dr. Kyoung Nan Kim**, Assistant Teaching Professor and advisor of the Chemistry Club, “and students told me that they found the session both motivating and informative.” A big “Thank You!” to our alumni and students for making this event meaningful and impactful!

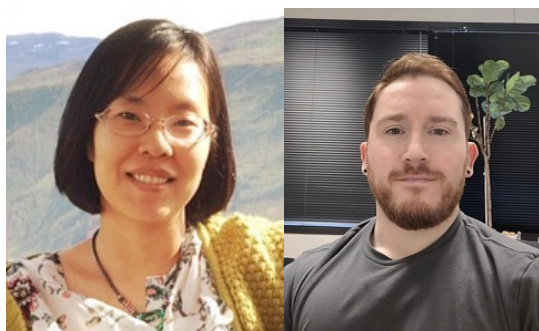
The Rising Trajectory of the Biochemistry Major

Back in 2017, under the leadership of then department chair, **Dr. Haobin Wang**, Professor of Chemistry, the department launched the Biochemistry major, with **Dr. Jefferson Knight**, Professor of Chemistry, serving as the program’s first director. Since then, Biochemistry has become one of the fastest growing majors at CU Denver. The number of *declared majors per year* rose from 0 in 2018 to 210 in 2025, and *146 students have so far* successfully completed the requirements and been awarded the degree.



“This program’s growth is driven by students’ interests on pursuing competitive careers in medicine, pharmacy, dentistry, and biotechnology,” said **Dr. Kyoung Nan Kim**, Assistant Teaching Professor and current director of the BS Biochemistry program. Echoed **Dr. Damian Dunford**, Instructor and departmental Academic Advisor, “to this end, the department has maintained rigorous and comprehensive curricula.”

Bridging the gap between fundamental chemical theory and clinical application, the degree requires a student to complete coursework in General Chemistry, Organic Chemistry, Biochemistry, and Physical Chemistry, and to choose electives from a rich selection of advanced courses such as Biochemistry of Metabolic Disease, Molecular Modeling and Drug Design, Bioinorganic Chemistry, and more. The program empowers students to future careers in medicine, pharmacy, and beyond. Please visit the department website for more information.





Dr. Jung-Jae Lee received a research grant from Cancer League of Colorado

In December 2024, Associate Professor of Chemistry, Dr. **Jung-Jae Lee** received a grant from the Cancer League of Colorado to pursue the projects "*Precision Surgery in Head and Neck Cancer with advanced Chemiluminescent Nanoprobes.*" Founded in 1969, the Cancer League of Colorado supports research in the discovery of the causes of many types of cancer and their most effective therapies, primarily in partnership with the University of Colorado Cancer Center.

Dr. Woonghee Lee is honored with Early Career Award from the Korean Magnetic Resonance Society

Assistant Professor of Chemistry, **Dr. Woonghee Lee**, was awarded the prestigious BKI Early Career Award from the Korean Magnetic Resonance Society (KMRS). The award recognizes Dr. Lee's significant contributions to the field of biomolecular NMR, particularly his development of essential software tools that streamline and enhance data analysis. His most notable contributions include, POKY, I-PINE, PACSY, NMRFAM-SPARKY, PONDEROSA, etc. Dr. Lee was presented with the award during the 58th KMRS Symposium, held in Konjiam Resort, South Korea, from February 3rd to 5th, 2025. He delivered an award talk titled "The POKY Suite: The Final Destination for AI in NMR," where he shared his insights on the future of artificial intelligence in nuclear magnetic resonance.



Dr. Hai Lin received the 2025 American Chemical Society Colorado

Section Award



Professor and Chair of Chemistry, **Dr. Hai Lin**, received the 2025 American Chemical Society Colorado Section Award, becoming the first CU Denver faculty member to receive this recognition since it was established in 1967. Dr. Lin is recognized for his significant contributions to multiscale molecular modeling that integrates quantum and classical mechanical pictures. Since joining CU Denver in 2005, Dr. Lin has focused his research on the development and application of adaptive quantum-mechanics /molecular-mechanics (QM/MM) algorithms for the simulations of reactive systems in complex environments, such as ion solvation and transport through transport proteins. A full story is

available at the [CLAS Newsroom](#).

Dr. Haobin Wang is named a 2025 Romberg Visiting Professor at Heidelberg University

Professor of Chemistry, **Dr. Haobin Wang**, was named a 2025 Romberg Visiting Professor. A world-renowned expert in quantum dynamics in large many-body systems, Dr. Wang has made seminal contributions in the multilayer multiconfiguration time-dependent Hartree (ML-MCTDH) theory. Supported by this prestigious program, Dr. Wang visited Heidelberg University, Germany, where he collaborated with peers for research and contributed to training graduate students.

(<https://www.mathcomp.uni-heidelberg.de/programs/romberg-program>)



Dr. Jung-Jae Lee is awarded a new NIH Grant for cancer research



Associate Professor of Chemistry, **Dr. Jung-Jae Lee**, received an R03 grant from the NIH to support his research titled “*Development of Near-Infrared Photothermal Chemiluminescent Gold Nanoprobes by Utilizing Retro Diels-Alder Reaction of Trapped Singlet Oxygens.*” This project aims to develop innovative, oxygen-independent nanoprobes that significantly improve imaging in oxygen-deficient environments such as tumors. These new materials have great potential to help physicians detect and monitor tumor mass during and after surgery, and so this research project may ultimately contribute to more effective cancer treatment outcomes.

Dr. Emilie Guidez led an international workshop in Advanced Quantum

Chemistry

Assistant Professor of Chemistry, **Dr. Emilie Guidez**, co-organized and hosted the workshop "*From ab initio Computations to Conceptual Insights into Bonding*" in Telluride, CO from May 27th to May 31st, 2025. Quantum-chemistry scientists from academic institutions and national laboratories in Europe, Asia, South America, and the USA gathered and discussed the latest advances in the development and applications of advanced quantum algorithms for the qualitative and quantitative comprehensions of chemical bonds.



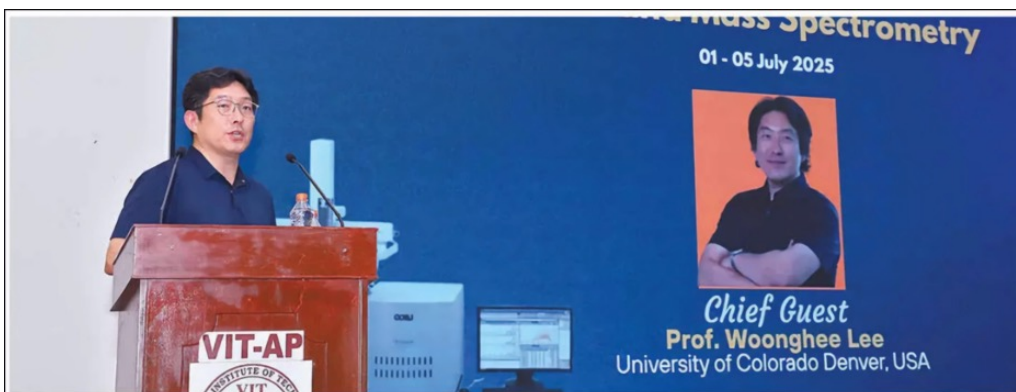
Dr. Liliya Vugmeyster is awarded a grant from NIH

Associate Professor of Chemistry, **Dr. Liliya Vugmeyster**, received a new grant entitled "*Internal water dynamics in hydration shells of amyloid-beta species*" from the National Institutes of Health. The grant, in which **Dr. Dmitry Ostrovsky** in the Mathematics Department is the co-PI, will support research on the dynamics of amyloid-beta protein aggregates, which are major players in the mechanisms of Alzheimer's disease. The initial study developing the biophysical concepts has recently been published in the *Journal of Chemical Physics* (Link to paper: <https://doi.org/10.1063/5.0279081>). The project places a strong focus on involving undergraduate students in research and involves an array of biophysical techniques spanning different spectroscopic and computational approaches.



Dr. Woonghee Lee delivered Keynote at an international workshop on Advanced Spectrometry

Assistant Professor of Chemistry, **Dr. Woonghee Lee**, delivered the keynote address, "Advancing Automated Protein Chemical Shift Assignments through AI/ML/CV" in an international workshop titled "Cutting-Edge Techniques in NMR and Mass Spectrometry." The five-day event, held from July 1 to 5, and hosted by CU Denver's international partnering institution, VIT-AP University in Amarvati, India, with both in-person and virtual attendance, brought together leading scientists, researchers, and industry professionals from around the globe to explore the fundamental principles and advanced applications of Nuclear Magnetic Resonance (NMR) and Mass Spectrometry. These analytical techniques are vital for scientific discovery and innovation across diverse fields. Dr. Lee shared his expertise and insights into these crucial topics.



Dr. Scott Reed is awarded a Fulbright Specialist grant to advance AI-powered STEM teaching in Estonia



Professor of Chemistry, **Dr. Scott Reed**, was awarded a prestigious Fulbright Specialist Program grant by the U.S. Department of State and the Fulbright Foreign Scholarship Board.

Dr. Reed travelled to Tallinn, Estonia, to collaborate with TTK University of Applied Sciences (TTK UAS) from October 11 to November 19, 2025. His project, “*Increasing Capacity for AI-Powered STEM Teaching*,” focuses on integrating generative artificial intelligence (AI) into STEM education. The initiative addresses a critical need for faculty development in using AI tools to enhance teaching, develop complex STEM learning materials, and ensure ethical and

responsible AI use in higher education.

During his time at TTK UAS, Dr. Reed led interactive workshops, hands-on demonstrations, and consultations with faculty and administrators. He helped establish best practices for AI integration in STEM courses, from engineering and environmental technology to transportation and logistics. Public seminars engaged students and the broader community in exploring the role of AI in education.

This collaboration not only improved STEM teaching quality in Estonia but also created lasting partnerships between U.S. and Estonian institutions. By embedding AI literacy into STEM curricula, the project fostered innovation, strengthened global connections, and prepared students for the challenges of a rapidly evolving technological landscape.

Dr. Emilie Guidez received a 2025 Phi Kappa Phi “Love of Learning” award

Assistant Professor of Chemistry, **Dr. Emilie Guidez**, received the 2025 “Love of Learning Award” from the Honor Society of Phi Kappa Phi, the nation's oldest and most selective collegiate honor society for all academic disciplines. The award letter cites Dr. Guidez’s superior academic record and life/career ambitions. Since joining CU Denver in 2017, Dr. Guidez has developed a vibrant and productive independent research program at the frontier of computational chemistry, attracting funding from the National Science Foundation, American Chemical Society, and industry. She is also an enthusiastic mentor of students in research, and she embraced “team-based learning” and “flipped classroom” teaching strategies in the classroom. This award will fund future career development for Dr. Guidez.



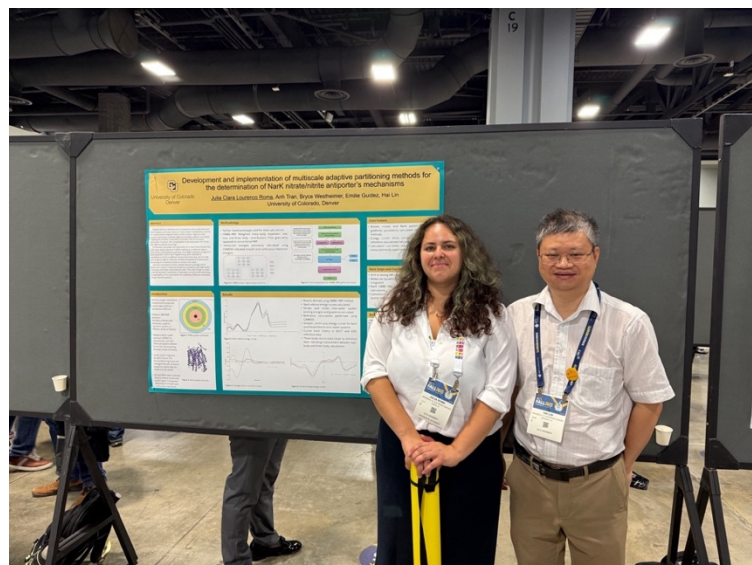
Undergraduate student Dagoberto Grijalva-Flores received Best Poster Awards at two national conferences

Undergraduate student **Dagoberto Grijalva-Flores** is doing research with Associate Professor of Chemistry, **Dr. Marino Resendiz**. The Resendiz group studies how oxidative lesions in RNA may alter its structure and lead to functional changes, helping people understand the link between oxidative stress on RNA and progression of diseases. Dagoberto presented his work as a poster at the 2025 National Organic Chemistry Symposium (NOS) held at Rensselaer Polytechnic Institute, where Dagoberto (2nd from left in the 1st photo) won a Best Student Poster Award. Amazingly, he won another Best Poster Award in the 2025 SACNAS NDiSTEM Conference in Columbus, Ohio a few months later (2nd photo). As a result of his outstanding scholarship, Dagoberto also received travel grants from the Colorado Section of the American Chemical Society (COACS) and NOS.



Dr. Hai Lin and Master Student Julia Roma presented in the Fall 2025 American Chemical Society National Meeting

Professor and Chair of Chemistry, **Dr. Hai Lin**, gave an invited talk at the "*Embedding Methods for Ground and Excited States*" Symposium at the Fall 2025 ACS National Meeting in Washington DC, Aug. 18-22, 2025. Dr. Lin's talk introduced the latest progress in his collaborative research with departmental colleague, **Dr. Emilie Guidez**, Assistant Professor of Chemistry, where they developed novel algorithms for computer simulations that integrated quantum mechanics and classical mechanics for ion solvation and transport. Master student **Julia Roma**, co-supervised by Lin and Guidez, attended the meeting and presented a poster that focused on her contributions to the project.



Undergraduate student Vi Tho Nguyen delivered a flash talk at RNA Canada meeting

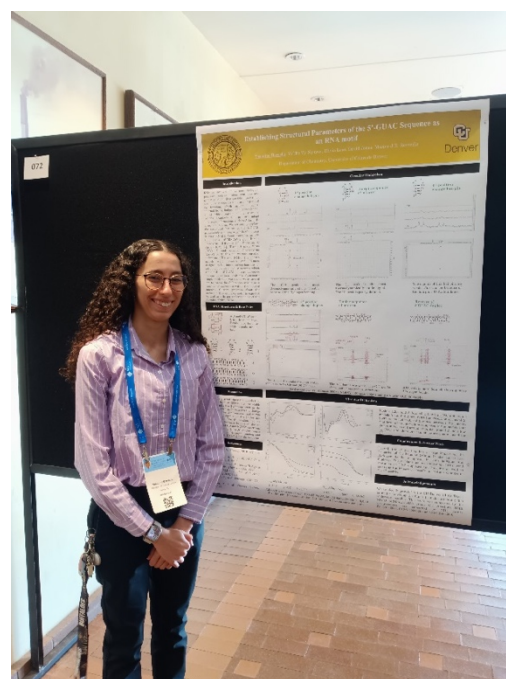
To give an oral presentation at an international conference as an undergraduate student? Yes, **Vi Tho Nguyen** (fourth from left in the photo) just did it! Vi Tho Nguyen has been doing research for more than three years in the group of **Dr. Marino Resendiz**, Associate Professor of Chemistry. She won a travel award for her trip to the 2024 RNA Canada meeting (Ottawa, ON, Canada, Sep. 30 to Oct. 4, 2025), where she delivered a flash talk entitled “Structural Studies of the 5'- GUAC Sequence within RNA Duplexes & Hairpins.”



Undergraduate students won Best Poster Awards in the ACS Rocky Mountain Regional Meeting

A number of talented research students attended the 2025 ACS Rocky Mountain Regional Meeting (Albuquerque, NM, Oct. 23-25) to present the progress in their projects. Proof of the quality of their work was put on display with some of them obtaining awards in the meeting. Undergraduate student **Yasmine Barache** (pictured here), who is doing research with Associate Professor of Chemistry, **Dr. Marino Resendiz**, presented a poster “Establishing structural parameters of the 5'-GUAC sequence as an RNA motif.” She was awarded a best poster recognition!

Displaying the commitment of faculty to quality mentoring for students at all levels, including high school, **Vikram Raju** (Cherry Creek high school) doing computational research with Chemistry professors **Dr. Jeff Knight** and **Dr. Hai Lin**, also won a poster award for his presentation titled “Evolutionary conservation of electropositive surfaces on the membrane-binding C2 domains of synaptotagmin-like protein 4”.

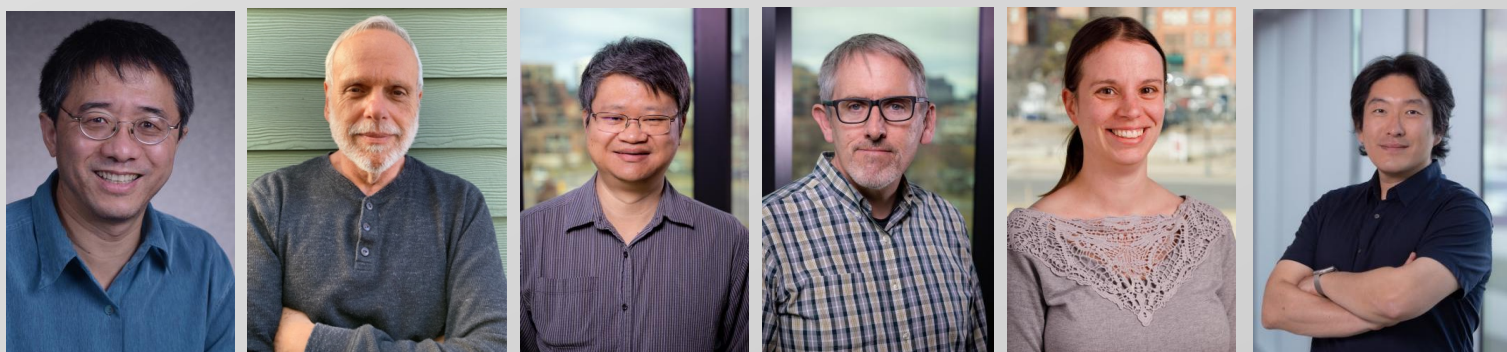


Center of Advanced Computational Molecular Science is established

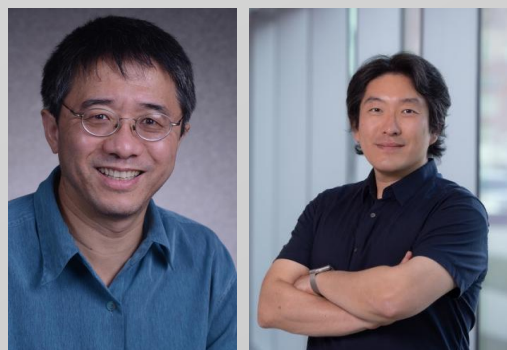
In November 2025, the department saw the inauguration of the Center of Advance Computational Molecular Science (CACMS). The establishment of CACMS was supported by the Research Team Grant Program of CU Denver's Office of Research and Services. The mission of CACMS is to promote extramurally funded collaborative research that features advanced modeling techniques ranging from quantum mechanics to artificial intelligence.

CACMS aims to achieve global recognition for innovation in research, creativity in education, and successful workforce development, driving a large societal impact. The center focuses initially on health-related sciences, specifically addressing critical knowledge gaps in pharmaceutical sciences like drug target identification, lead compound discovery, and shortening the timeline for drug synthesis. Operating as a quasi-virtual collaboratorium, CACMS leverages global talent and collaborations without the need for costly on-campus computing facilities, ensuring a broad and effective application of our advanced computational tools.

Professor of Chemistry, **Dr. Haobin Wang**, serves as the CACMS Director, while Adjoint Professor **Dr. Kenneth Lipkowitz** serves as the Associate Director. Professors **Dr. Hai Lin** and **Dr. Scott Reed** and Assistant Professors **Dr. Emilie Guidez** and **Dr. Woonghee Lee** are the core members. Colleagues (esp. experimental colleagues) who collaborate with them will be invited to become associate members of the Center. CACMS will further the CU Denver's strength in computational research and education.



Dr. Haobin Wang and Dr. Woonghee Lee are among the most cited researchers in the world



Professor of Chemistry, **Dr. Haobin Wang**, and Assistant Professor of Chemistry, **Dr. Woonghee Lee**, are among the top 2% highly cited scientists in the world in the 2025 annual list by Stanford University and Elsevier (one of the largest scientific publishing companies), which is based on citations received in 2024. Moreover, **Dr. Haobin Wang** is among the top 2% highly cited in the world in the 2025 career achievement list, which reflects publications from 1960 to 2024 with citations from 1996 to 2024. Congratulations!

Dr. Xiaotai Wang retired

Professor of Chemistry, **Dr. Xiaotai Wang** retired in August 2025. Dr. Wang joined the department in 1997 as an Assistant Professor and was promoted to Associate and Full Professors in 2004 and 2015, respectively. Dr. Wang taught many Inorganic Chemistry and General Chemistry courses, including both lectures and labs. Dr. Wang initially focused on experimental synthesis and properties of metal-organic frameworks (MOFs), and his group reported the first lanthanide-carboxylate MOF capable of selectively adsorbing CO₂ over N₂. Dr. Wang later expanded his research horizon to computational organometallic chemistry, elucidating the mechanisms of transition metal-catalyzed reactions in organic synthesis chemistry. Dr. Wang has published 58 papers, delivered numerous presentations in conferences and seminars, and supervised many research students. His research has been supported by ACS PRF, Research Corporation, and industry. We deeply appreciate Dr. Wang's invaluable contributions to the department, and we wish him well in the future!



Ms. Catherine Rathbun retires

Lab Coordinator, **Ms. Catherine Rathbun** will retire in December 2025. Cathy joined the department in May 2000 and worked for the Chemistry Department for 25 and a half years. She oversees all labs, especially the General Chemistry labs, making sure that the equipment and supplies are ready for teaching needs. In addition to supervising labs, Cathy also was responsible for monitoring the department's instrumental inventory, assisting with chemical inventory and research laboratory cleanouts, and providing other assistance as needed. Cathy served as departmental representative during the Science Building project and has also served on the Capital Equipment fund since its inception. She received CLAS service award for a staff member in 2010. We are hugely grateful to her dedications to the faculty, staff, and students over the years. Thank you so much, Cathy, for everything you have done for the department! We wish you well in the future!



Farewell, Dr. Marta Maroń!



Teaching Professor of Chemistry, **Dr. Marta Maroń** left the department in August 2025, as her family was relocated out of Colorado. Dr. Maroń joined the department in 2011 as an instructor and was promoted to Assistant, Associate, and Full Teaching Professor in 2015, 2018, and 2024, respectively. Dr. Maroń is an outstanding teacher, taught numerous lectures and lab courses in General Chemistry, Analytical Chemistry, and Physical Chemistry. She has been a leader in the departmental efforts in curriculum innovation, developing and significantly revising many courses, including online classes and labs. She also participated in the teaching improvement project in the college. Dr. Maroń served on many committees and programs within and outside the department. She also advised chemistry and biochemistry majors.

Our students enjoyed lots of outreach initiatives that she organized, such as "Chemistry Meet and Greet," "Open House" seminars, and "Life After CU Denver" seminars that connect faculty, students, and alumni. Dr. Maroń has received many teaching and service awards, including the very recent 2024 CLAS Award for Excellence in Leadership & Service by IRC Faculty. The CU Denver Learning Resources Center has even named an annual award in her honor, the "Marta K. Maroń Learning Engagement Award" given to individuals who contribute to student success on campus. We are so happy that Dr. Maroń had agreed to continue teach online courses as a lecturer for the department in the future. Thank you so much, Dr. Maroń! We cannot thank you enough!

Dr. Jefferson Knight became the Director of the Office of Undergraduate Research and Creative Activities

In spring 2025, Professor of Chemistry, **Dr. Jefferson Knight**, stepped into a new role as the director of the CU Denver Office of Undergraduate Research and Creative Activities (URCA). His mission is to ensure that every CU Denver undergraduate knows that faculty-mentored research and creative work are within reach. To this end, Dr. Knight works tirelessly with faculty, administrators, and external partners to expand opportunities, funding, and awareness. “My goal is for every CU Denver undergraduate student to know that faculty-mentored research and scholarly creative work opportunities are available to them,” Dr. Knight said. “Every student who wants to have one of these experiences should be able to do so.” A full story is available at the [CU Denver News](#).



Dr. Pamela Nagafuji received CLAS Outstanding Community Engagement Award

Lab Coordinator, **Dr. Pamela Nagafuji**, received the CLAS Staff Council’s Outstanding Community Engagement Award of 2025. Dr. Nagafuji has been working for the Chemistry Department since 2015. She is an elected Councilor in the ACS Colorado Section and a Society for Science Advocate. Dr. Nagafuji helps mentor underrepresented middle-school students interested in participating in science fairs and other STEM extracurricular activities like First Robotics. Along with colleagues at Community College of Denver and Metro State University of Denver, she started a tri-institutional student chemistry group and has helped prepare and send several of those undergraduate students to present posters at national ACS meetings. This award recognizes Dr. Nagafuji’s enthusiastic engagement in organizing and leading community activities that provide significant benefits to the CLAS and beyond. BTW, Dr. Nagafuji has a brown belt in Tomiki Aikido and walks dogs at Humane Colorado every week!



External Research Grants (Year of 2025)

- **Jung-Jae Lee** (PI); Development of near-infrared photothermal chemiluminescent gold nanoprobe by utilizing retro Diels-Alder reaction of trapped singlet oxygens; National Institute of Health; 2025-2027
- **Jung-Jae Lee** (PI); Precision surgery in head and neck cancer with advanced chemiluminescent nanoprobe; Cancer League of Colorado; 2025-2026
- **Scott Reed** (PI); Increasing capacity for AI-powered STEM teaching; Department of State and the Fulbright Foreign Scholarship Board; 2025
- **Liliya Vugmeyster** (PI); Internal water dynamics in hydration shells of amyloid-beta species; National Institute of Health; 2025-2027

Peer-Reviewed Publications (since Fall 2024)

- **Wang, H.; Lin, H.**, "A simple extension of the Nosé thermostat," *Journal of Chemical Physics*, **2025**, 163, 214117.
- Xie, X.; Yang, J.; Yan, Y.; Hao, J.; Yang, C.; Guo, Y.; **Wang, H.**; Zhong, B.; Huang, W.; Cui, G.; Fang, W.; Xie, L.; Guo, X. "Single-molecule solvolysis reaction dynamics under electrostatic catalysis and proton tunneling," *Angewandte Chemie International Edition*, **2025**, 64, e202425097.
- **Reed, S.M.** "Augmented and programmatically optimized LLM prompts reduce chemical hallucinations," *Journal of Chemical Information and Modeling*, **2025**, 65, 4274-4280.
- Saunders, E.F.; Schultz, K.R.; Lowe, I.; Anderson, A.L.; Bikkumalla, V.S.; Soto, D.; Tran, N.Y.; Baumel-Alterzon, S.; **Knight, J.D.**; Shearn, C.T. "Rapid protein carbonylation and decreased insulin secretion induced by inflammatory oxidative stress compounds," *Free Radical Biology and Medicine*, **2026**, 242, 320-332.
- Ling, A.; Schultz, K.; **Knight, J.D.**; Shearn, C.T.; Baumel-Alterzon, S. "Scars of oxidative stress: Protein carbonylation and beta cell dysfunction in diabetes," *Frontiers in Endocrinology*, **2025**, 16, 1722623.
- Ramirez, H.; Al-Jarah, T.; Schowe, W.S.; **Resendiz, M.J.E.** "8-oxo-7,8-dihydropurines as building blocks to enhance the selectivity of an RNA aptamer for aminoglycosides," *ACS Chemical Biology*, **2025**, 20, 2328-2342.
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