

The College Chemistry Achievement Awards are presented annually by the Chemical Society of Washington to outstanding seniors majoring in chemistry and biochemistry from each of the area colleges and universities.

Lauren Applegate

University of Maryland College Park

David Fushman

Lauren's research advisor, David Fushman, writes that Lauren is working on her own highly ambitious project, which involves assembly of long (tetra- and longer) polyubiquitin chains (free and substrate-attached) for the purpose of examining how the deubiquitinating enzymes from various cellular signaling pathways disassemble these chains. Lauren is using mass spectrometry, and for this purpose each ubiquitin monomer in the chain must have its own unique mass. Precise controlled assembly of polyubiquitin chains is a skill that only few people/labs in the world possess, and Lauren has mastered it very successfully. Overall, Lauren has demonstrated impressive laboratory skills and work ethic. She is very thoughtful and accurate in her work, highly reliable, and is capable of creative independent thinking.

Dr. Kahn writes that Lauren has also been an extraordinarily dedicated and organized leader of the UMaryland iGEM team, a student-led club that does synthetic biology projects aimed at solving societal problems. Lauren has been the finance chair, leading successful fundraising and managing the complex finances of running the team and sending delegations to the annual jamboree in Paris.



Quentin A. Bullard

St. Mary's College of Maryland

Dr. Daniel Chase

It is with great pleasure that we nominate Quentin A. Bullard for a Chemical Society of Washington College Chemistry Achievement Award. I had the pleasure of to be Quentin's instructor for both my Organic Chemistry I and II courses where he easily earned top marks on all of my exams, including scoring within the 98th and 99th percentile in the American Chemical Society's first semester and comprehensive organic chemistry exams, respectively. Since completing his organic chemistry coursework, Quentin joined my synthetic research group where he investigates the synthesis and development of low-valent Group 13 chelates containing the aza-dipyrromethene (aza-DIPY) core which collectively have potential for small molecule activation pathways. Quentin has worked on this line of research for nearly two years and his endeavors have proven to be highly successful. Through this work, he has become proficient in routine organic and organometallic synthesis, glove box technique, and ¹H NMR spectroscopy. In the summer of 2025, Quentin had the opportunity to continue his research project via an NSF-REU program with our collaborators at Duquesne University (CHE-2244151). Quentin is currently in the process of gaining admission to graduate schools where he aims to earn a Ph.D. in synthetic inorganic chemistry; Quentin already has an offer on the table and is sure have a highly successful graduate career. Having the opportunity to watch Quentin grow and develop into a mature and outstanding young chemist has been an absolute delight to me and my fellow faculty members and we wish to warmly congratulate him on receipt of this award.



Giulia Chitu

Georgetown University

Esther Braselmann

It is my great pleasure to support Giulia Chitu's nomination for this year's CSW College Chemistry Achievement Award. Giulia is participating in research in the Braselmann group for the fourth consecutive semester now. She is performing a series of protocols diligently and consistently. Her work includes tedious plate reader titration assays with a series of purified RNA molecules and small molecule fluorophore ligands. Giulia's contribution was instrumental and this work is now published in ACS Chemical Biology with Giulia as a co-author.

Giulia researched a project direction for her independent work in her senior year and presented it in our lab group meeting for feedback and comments from the team. Her idea is to image the bacteria *Listeria monocytogenes* and their infections of mammalian host cells, in particular as they relate to infertility. Giulia researched this in great detail herself. This is a topic that Giulia is personally interested in pursuing, and I am giving her the freedom to explore this direction for her honors thesis project.

Giulia also excelled in the classroom. As an example, she attended CHEM 4505, a senior level lab course I taught. In this class, we developed a methods-based manuscript where all students participated in writing and editing. Giulia took on a leadership role, and will be co-author on the manuscript that is now in submission for publication.



May Cort

American University

Prof. Douglas Fox

Ms. May Cort will be graduating from American University with a BS in Biochemistry in May. Ms. Cort is a bright, enthusiastic student, who has demonstrated strong research skills. She joined Prof. Douglas Fox's lab three years ago and was assigned an exploratory project on identifying adulteration of saffron samples. Working on this project, she learned how to independently operate our triple quad LCMS. Demonstrating strong research skills, Ms. Cort was reassigned to a more developed project on trace labeling carbohydrate materials the following year. During her time on this project, she learned how to independently operate our ICP and fluorescent spectrometer. She is currently assisting with a publication on this project, contributing with data collection, data analysis, and writing. Outside of lab, Ms. Cort has been working as an ER tech. After graduation, she intends to attend PA school.



Nina Garcia

American University

Prof. Douglas Fox

Ms. Nina Garcia will be graduating from American University with a BS in Chemistry in May. Ms. Garcia is a bright, helpful student, who has demonstrated a strong interest in research. She worked well in our advanced laboratory courses, showing good teamwork, good understanding of the chemical concepts, and good experimental skills. In one of these courses, her team designed their own semester long project rather than using one of the options provided. Ms. Garcia conducted a summer research internship at the Armed Forces Radiobiology Research Institute working under Dr. Vijay Singh, focusing on evaluating the radioprotective effects of Gamma tocotrienol in non-human primates. This past year, she joined Prof. Douglas Fox's lab examining amino acid functionalization of cellulose, where she has learned how to independently operate our fluorescence spectrometer and chromatographic systems. Outside of the lab, Ms. Garcia is a supplemental instructor for the organic chemistry courses, providing peer to peer assistance in chemical concepts. After graduation, she intends to pursue a PhD in the chemical sciences.

Mingxin (Rachel) Lei

University of Maryland College Park

Amy Mullin

Mingxin (Rachel) is double-majoring in Chemistry and Mathematics, and minoring in Computer Science. She has an outstanding academic record in all three, frequently earning straight A's in what appears to be a superhuman course load. Her research advisor, Dr. Amy Mullin, notes that Rachel is a joy to work with, learns new techniques quickly, and analyzes data independently and carefully. She has carried out an advanced experimental project, applying transient absorption to compare the efficiencies of CO and CO₂ excitation to high-J states in an optical centrifuge. She presented this work at a conference in Utah, where she was assumed to be a graduate student already. She is also pursuing trajectory calculations on the onset of gyroscopic behavior that inhibits energy transfer from these highly excited molecules. She plans to earn a Ph.D. in physical chemistry.



Goodness Odagbodo

The Catholic University of America

Greg Miller

Goodness Odagbodo is a Biochemistry honors student at The Catholic University of America who will graduate in May 2026 with a Pre-Medical concentration. Since January 2024, Goodness has conducted research on inositol phosphate kinases in the laboratory of Dr. Greg Miller, where he has shown exceptional independence, consistently engaging with the primary literature to inform his experimental design and expanding his project to incorporate bioinformatics and computational modeling approaches. Goodness is deeply committed to service — he has been President of the university's Migrant Rights Coalition since his Junior year, serves as Vice President of both the Chemistry Club and the campus radio station, and works as an undergraduate tutor in the sciences. He is a recipient of the Roy Bode Memorial Award and the Lead With Light Award and has been recognized on the Dean's List With Distinction. Goodness exemplifies the kind of student who brings both intellectual curiosity and genuine care for community to everything he does.



Minh Phan

Georgetown University

Prof. K. Travis Holman

It is my great pleasure to nominate Minh Phan for this award. Minh is a Chemistry major at Georgetown University whose academic performance has been outstanding in every respect. Since joining the Holman group in the fall of 2023, he has been a highly productive contributor to research and consistently performs at a level comparable to that of a PhD student. Minh earned a Baker Research Fellowship in the summer of 2024 and a CRF Summer Research Fellowship in 2025. Minh's research includes independent projects in the field of porous molecular materials and the emerging area of 'porous liquids.' He has been exploring the synthesis and properties of certain porous organic salts, and relatively shape-persistent macrocyclic compounds known as pillar[5]arenes. Data suggests that certain solutions of certain pillar[5]arenes effectively function as dissolved cavities/pores that are capable of selectively sorbing small molecule hydrocarbons. Minh has developed skills in organic synthesis, nuclear magnetic resonance (NMR) spectroscopy—including diffusion-ordered spectroscopy (DOSY)—electrospray ionization mass spectrometry, X-ray crystallography, and computational chemistry (DFT). Minh is an exceptionally well-rounded and motivated emerging scientist that plans to pursue a PhD degree in Chemistry. His recognition by this award is well deserved.