Laura Hall

Laura_hall_21@yahoo.com | Chemistry Building 216

Education

Auburn University, Auburn, AL — Aug 2023 – Present

- PhD candidate in the Department of Chemistry and Biochemistry working under Dr. Katherine Rush

Jacksonville State University, Jacksonville, AL — April 2023

- Bachelor of Science, Medicinal Chemistry with honors (Cum Laude)

Professional Development

- Received the Helping Hands award at the Auburn Department of Chemistry and Biochemistry awards banquet for helping with graduate student recruiting events.
- Currently collaborating with Dr. Brandon Greene's lab at the University of California at Santa Barabara to perform XAS experiments on the protein pyruvate formate lyase.
- Completed 3 years of teaching general chemistry labs to undergraduate students, as well as grading for general chemistry and biochemistry classes.
- Served as a reviewer for applications for Auburn University's College of Science and Mathematics (COSAM) Undergraduate Research Fellowship (URF) program
- Gave a career development talk on the graduate school application process and experience to the Women in STEM club at Auburn University.
- Presented a poster at the 9th Georgian Bay International Conference on Bioinorganic Chemistry (CanBIC) in Parry Sound, Ontario, Canada – May 2025
- Presented a poster at the Southeast Enzyme Conference (SEC) in Atlanta, Georgia, USA – 1st place poster prize winner – May 2025
- Presented a poster at SEC in Atlanta, Georgia, USA – April 2024
- Attended the American Chemical Society (ACS) East Alabama and West Georgia local section in Troy, Alabama, USA – February 2024
- Department of Chemistry scholarship winner at Jacksonville State University – December 2022
- Biochemistry undergraduate researcher under Dr. Sharifah Albraiki at Jacksonville State University – January 2022 to December 2022

Lab Skills and Techniques

- Experienced in protocol development and optimization.

- Experienced in growing and purifying transmembrane proteins using affinity, ion exchange, and size exclusion chromatography
- Experienced in establishing safety and waste protocols for hazardous chemicals containing heavy metals, specifically mercury containing waste.
- Specialize in using X-ray absorption spectroscopy (XAS) to study proteins containing inorganic materials at NSLS-II at Brookhaven National Lab in Brookhaven, NY
- I have also conducted XAS experiments at SSRL in Stanford, CA
- Skilled in using proton and selenium NMR to interpret small molecule complexes
- Experienced in working with autoclaves, glove boxes, cryogens, AKTA-FPLC, inductively coupled plasma (ICP), and sterilization processes
- Experienced in using MestreNOVA NMR software, Avagadro 1 and 2, PyMol, Zotero, and TinkerCad (3D printing design)
- I am also skilled in using multiple XAS processing applications such as Athena, Artemis, and Larix
- I am also skilled at using Microsoft Office applications, Adobe Illustrator, and Canvas