

Camille Coiteux-King

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Summary

Experienced Lab Technician, Research Assistant, and Chemistry B.S. graduate with hands-on **expertise in mass spectrometry** and a **keen grasp of hyperpolarization techniques and novel interactions** in NMR-compliant settings. Indelibly curious and eager to contribute to innovative research, committed to pursuing a Ph.D. to explore the interface of quantum and experimental chemistry in molecular mechanics.

Education

Bachelor of Science in Chemistry with American Chemical Society Certification

University of Washington, Seattle, June 2026 (expected) Cumulative GPA: 3.2

Relevant Coursework: Spectroscopic Molecular Identification, Quantum Mechanics of Atoms and Molecules, Chemical Thermodynamics, Quantitative Analysis, Organic Chemistry I, II, & III, Inorganic Chemistry

Research

Undergraduate Researcher

Rafferty Lab, *University of Washington Mitochondria & Metabolism Center*, Seattle, Washington, United States, onsite (Mar 2025 – Present)

Conduct research on improving H-NMR sensitivity in the Rafferty Lab, with focus on hyperpolarization mechanisms of parahydrogen and pairwise addition via metal-based catalysts (via PHIP), and non-hydrogenative, reversible binding to facilitate high polarization transfer.

Undergraduate Research Assistant

Turecek Lab, *University of Washington*, Seattle, Washington, United States, onsite (Mar 2025 – Present)

Aid graduate students at the Turecek Lab with chemical polypeptide syntheses and Electrospray Ionization Mass Spectrometry (ESI-MS), with research focus on novel cross-linking interactions and proteomics using bioinformatics and data analysis tools.

Core Qualifications and Skills

Technical proficiencies in Chemistry

Expertise in utilizing advanced research methodologies, laboratory equipment, and specialized software for data analysis; **excels at applying analytical techniques to metabolomics and exposure science**

- Nuclear Magnetic Resonance
- Chemical polypeptide syntheses
- Hyperpolarization mechanisms of parahydrogen
- Manipulation of parahydrogen generators
- Molecular construction
- Schenk line manipulation

Data analysis: mass spectrometry, H-NMR, C-NMR, IR, COSY, GC-MS, UV-Vis, HPLC, TLC, FIA

Basic lab procedures: buffer and standard preparation, titrations, liquid-liquid extractions, solid-phase extraction, column chromatography, reflux, vacuum filtration, etc.

Analytical and research skills

Critical thinking and problem-solving: Assess complex data sets, identify trends, identify potential gaps or errors, evaluate evidence rigorously, and adapt research strategies to address unexpected obstacles, scrupulously adhere to a project's scope, and draw meaningful conclusions to advance research objectives

Lab protocol and procedure: Adept and committed to proper laboratory protocols including handling of chemicals, specimen, samples, etc.; technical proficiencies with equipment, hygiene and cleanliness standards, hierarchical deference in lab assignments

Communication skills

Strong written and verbal abilities: Adept and confident in research drafting, experiment documentation, presentation delivery, and explaining complex concepts to diverse audiences in succinct and accurate narrative or technical form.

Research in teams: Easily collaborate within multidisciplinary teams and coordinate efforts to achieve shared research goals and forge productive partnerships

Multilingual: Fluency (written and spoken) in French; working conversational skills in German and Japanese

Honors and Professional Affiliations

- Dean's list (UW)
- Society of Chemical Industry (SCI), student member
- National Honor Society, National Society of High School Scholars
- IB Scholar, National Merit Scholar
- Awards, Outstanding Jazz Pianist (various competitions in SW Washington)

References

Daniel Raftery, Ph.D., Md.S