Biochem + Me

Be a CU Boulder Biochemist

CU BOULDER: THE PLACE FOR ME

I chose to do biochemistry at CU Boulder for several reasons. One is the abundance of world class research all set against a backdrop of beautiful mountains. Another is the culture of supporting undergraduate research endeavors and the accessibility of laboratory research. Also, as someone who wants to pursue a career in biotech, having a designated biotechnology building with 3 floors of cutting-edge research labs was a big plus.

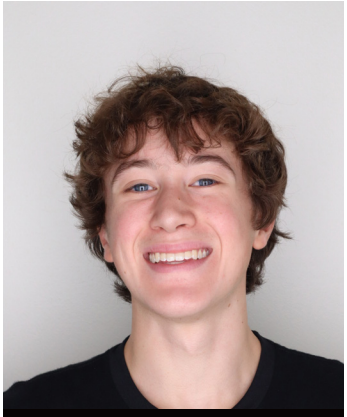
I just declared a major in chemistry in addition to biochemistry! I recently realized that I can't feel as confident in my knowledge if I don't have a deeper understanding of the latter half of biochemistry. Also, I found that I really enjoy organic chemistry and after my experience researching metalloenzymes at MIT this summer I have become fascinated with bio inorganic chemistry. I'm taking this next semester as a sort of trial run to see how much I enjoy pure chemistry and the corresponding bench work.

UNDERGRADUATE RESEARCH OPPORTUNITY: INVALUABLE KNOWLEDGE

I hope a biochemistry degree gives me the toolset and confidence to propose solutions to complex biochemical problems and invent new assays and methods for discovery. I think what this program has already allowed me to do in two years is incredible and makes me excited for the latter half of my college experience.

I believe living matter is the most fascinating phenomenon in the universe. It's endlessly complex and adaptive: it can facilitate novel chemical reactions and survive across an enormous range of environments. Biochemistry is life at the smallest possible scale and is therefore the root cause of all diseases and afflictions. The sheer complexity of life at its most basic components means there's so much space to invent and discover. Biochemistry is an infinite sandbox for my curiosity, and through it I can better understand - or at least investigate - life systems and disease.

"I am really interested in intellectually contributing to the fight against disease, whether it's through industry or academia. More specifically, I want to design and develop new treatments using my knowledge of biochemistry and biochemical research. Regardless of the specifics, this will involve earning a PhD. A doctorate would open a lot of options for me such as starting my own biotech, joining a larger pharmaceutical company or biotech in R&D, or continuing my journey in academia. I also think that teaching biochemistry as a professor would be really fun."



ASHER FERREIRA

BOSTON
MASSACHUSETTS

Luger Lab (2024 - present)

BA Graduate SPRING 2027
Majors: Biochemistry + Chemistry

SUMMER 2025
MIT/HHMI SURP Experience

2025 - 2026
Vice President, S.C.O.P.E. Board of Directors

2025 - 2026
Vice President, CU Trampoline Club

Biochemistry
UNIVERSITY OF COLORADO **BOULDER**

Biochem+Me

MY LIFE'S JOURNEY

The impetus for my curiosity with biochemistry was being diagnosed with type 1 diabetes when I was nine. Part of why I want to fight disease so much is because I know how it feels to wake up one day and have your entire world be turned upside down by a biochemical phenomenon completely outside of your control.

CHARTING MY OWN PATH: CU BIOCHEMISTRY SUPPORT

At the end of the spring semester I reached out to Dr. Catherine Drennan at MIT with my CV and a cover letter to apply to work in her lab that summer. Coincidentally, HHMI restated its Summer Undergraduate Research Program (HHMI SURP) at the same time, so she nominated me for it.

This couldn't have happened without my current PI at CU Boulder, Dr. Karolin Luger, vouching for me.

I'm from Boston so I biked to MIT every day from home which was really nice. I really appreciated how interdisciplinary the lab was, I met grad students and post docs with backgrounds in organic, inorganic, and biochemistry - all fields I'm interested in exploring! I enjoyed my independence this summer; I got to design and conduct my own experiments as well as invent my own methods. My big takeaways from this experience are: science should always be done creatively, and a positive work environment and culture is the most important criterion for choosing a lab.

ASHER FERREIRA
BOSTON MASSACHUSETTS

MY GRATITUDE AND FORWARD-THINKING:

"I am really honored to have been awarded the Bob and Dickie Lacher scholarship in AY2024-2025 and again this academic year. This year I've shifted my focus towards national awards such as the Goldwater and Astronaut scholarships. I also want to enter my name in the competition for the DOORS program to make connections in the biotechnology industry. Since US-based biotechnology and research is currently suffering from governmental funding cuts, I'm considering applying to UK-based scholarships such as the Rhodes and Gates-Cambridge."