

I attend Rutgers Camden's Center for Computational and Integrative Biology (CCIB) for its cross-disciplinary nature. We are entering a scientific world where one field **cannot** supply all the answers. The CCIB integrates techniques across the physical sciences to better study biological questions. Students are encouraged and required to learn material from outside their field of specialty as well as collaborating with internal and external laboratories. Rutgers provides its computational researchers time on multiple supercomputers, across its campuses, to run complex simulations and calculations, promoting innovative research. I feel from all that CCIB offers, it promotes unique and progressive research environment for its students.

I had a rotation in Dr. Brannigan's lab as I was curious what molecular dynamics was and its application to biology. I began to read about the theory and saw the overlap with my research interests; I was interested in modeling biological systems using physics. Additionally, in preparation for joining the CCIB, I had been reading introductory biophysics textbooks and developed an interest in proteins and membranes.

Working on my master's degree in Dr. Brannigan's lab I analyzed non-annular lipid binding and protein partitioning within a membrane. This has given me a strong introductory foundation to membrane-protein interactions and the groundwork for our future research. Further, I have been given a chance to present my work to the public at Biophysical Society Conferences on two separate occasions. Dr. Brannigan has been a foundation of guidance and insight to my graduate education so far. She is well known in the fields of membrane theory, anesthetic binding, and pentameric ligand gated ion channels.