

Katherine Cox '25

Undergraduate Research in Hess Lab at Columbia Summer 2024

I spent this summer as an undergraduate researcher in the Hess lab at Columbia. I was able to participate in biomedical engineering research, working on a project that involved finding the binding and unbinding rates of short fluorescent oligonucleotides under a microscope. I used many different data collection and analysis techniques and platforms including FIJI-ImageJ and MATLAB. Furthermore, I got to learn more about biomedical engineering techniques that could potentially be used to sequence proteins, including an approach called DNA-PAINT. I also enjoyed learning about what the other members of the lab were working on. Overall, I got a lot out of this experience and I find the research goals super exciting.

I am very grateful to the Byrne Program for giving me the opportunity to have this valuable experience!