

I applied to the BPS Vacation Studentship during my one-year placement as part of my degree, where I developed an interest in studying potential therapeutics to hijack oncogenic pathways. As I was keen to pursue a PhD in related areas, I became interested in Professor Itzhaki's research on tandem-repeat proteins and their application to diseases like cancer.

My 8-week internship involved investigating the biophysical properties of engineered tandem-repeat proteins containing grafted NRF2 loops to modulate the NRF2/KEAP1 pathway in cancer. This opportunity allowed me to gain hands-on experience with biophysical techniques that I had only learned about through textbooks, such as circular dichroism and fluorescence competitive assays. I also enhanced my molecular biology skills by repeatedly performing techniques that I had not had the chance to practice extensively during my course. Additionally, the experience broadened my understanding of different pharmacological approaches, such as modulating protein-protein interactions. Through several trials, errors, and failed experiments, I gained confidence in the lab and learned to troubleshoot unexpected problems independently. The supportive, collaborative, and motivated environment fostered my curiosity and helped me learn how to ask and answer questions in fields I was not yet familiar with.

This experience has certainly strengthened my skills in preparation for a PhD in related areas. Through this enjoyable learning experience, I was able to make a more informed decision about applying for a PhD in Pharmacology.