

During my final year of my degree in chemistry, I worked on a project which was in collaboration with the School of Medicine and Dentistry at Queen Mary University of London. I had the opportunity to test the compounds I designed for an MC<sub>4</sub>R mutant on HEK293 cells running cAMP assays. This further piqued my interest in a pharmacological lab, particularly drug targets and GPCRs, inspiring me to apply for this summer studentship with the British Pharmacological Society.

During this time, I worked on a receptor within the same family of melanocortin receptors known as the melanocortin-3 receptor. This receptor has been well known for its role in energy homeostasis. My research however, focused on a particular mutation, K160A, and screening various compounds using the cAMP assay. The screening was done using positive allosteric modulators using the mutated receptor as well as the wild type. The results were then analysed by completing a dose response curve. As a chemistry graduate, this was a method of analysis which was unfamiliar to me, however, I was able to learn how to plot a dose response as well as analysing the results to see what they indicate. After successfully completing the screening of the compounds, I was also given the opportunity to learn Western Blotting. This technique allowed me to detect protein in a particular sample and I also had the chance to learn and complete a different type of assay known as BRET assay. In these ten weeks, not only did I work in the lab, I also had a chance to work on developing key academic skills such as researching, presenting, logical reasoning and academic writing.

As a chemistry student, several of these techniques were new to me, which makes me very grateful to BPS for allowing me to complete this studentship which helped me enhance and develop several key skills which will be invaluable to me. I aspire to pursue a PhD after my medical training has been completed. In medicine, pharmacology is a cardinal aspect as it deals with understanding the role of various drugs in the body. I would finally like to thank the McCormick group for their support during my summer project and for teaching me several new techniques and also Dr Peter McCormick for being a great supervisor throughout the year.