

This summer, with the support of the UCD Ad Astra Academy, I had the exciting opportunity to carry out a four-month research internship at the Max Planck Institute for Colloids and Interfaces in Berlin, Germany, under the supervision of Dr. Oren Moscovitz. I was working on a project to identify nanobodies (small antibody fragments) which could bind to sTn – a type of carbohydrate which is found on the surface of many types of cancer cell. These nanobodies can provide us with a greater understanding of the immune system's response to cells with sTn. In the future, it could even be possible to link chemotherapeutic drugs to these nanobodies such that the drug is delivered directly to cancer cells, reducing side effects.

This internship was a fantastic opportunity to experience a real-world research environment and meet top class scientists from around the world. I was able to apply many of the chemical concepts that I had studied in UCD, as well as learning many new concepts in biochemistry. From designing experiments to making presentations on my work to the research group, this internship has certainly prepared me for future graduate studies and a career in research.

Apart from the academic experience, living in Berlin was also a wonderful opportunity for personal development. Moving to a new city can be a daunting experience, especially in the middle of a pandemic, but it was a valuable one. I made friends for life, travelled around Germany, Poland, Austria, the Czech Republic and Sweden, and improved my knowledge of German, such that most of my social and work life during the summer was conducted through German.

I am incredibly grateful to the Ad Astra Academy for its support during my internship. It gave me financial independence during the summer, and the values of the Academy inspired me to reach for the stars and seek out this opportunity in the first place.



Filtering a sample of protein with Jost and Felix (PhD students)



Berlin Cathedral and TV Tower



“Splitting” a culture of human cancer cells



Dr. Moscovitz (3rd from left) and the whole research group