

## Victoria Stomberg

Year 2 (2020-21): MSci Chemistry with Medicinal Chemistry

UROP (Summer 2021) in the Dept of Chemistry

**UROP title:** Palladium amino acid complexes: novel precursors for the rapid formation of carbon-11 labelled amino acids

Since our lab experience was very limited in second year I was glad to hear that most UROP projects were supposed to go ahead in person this summer. I reached out to my personal tutor about how to get started and ended up doing the project with him as one of his fields of research matched my interests. In general, I wanted to do a UROP to gain more confidence in the lab and practice some of the skills we learned virtually this year to prepare myself for third year. Aside from that, I am thinking about doing a PhD after finishing my masters and was looking to get an insight into how research is done and if that was something I would enjoy doing. Before getting started I looked at some of the research groups in the Department of Chemistry to see what could spark my interest. Due to my ancillary subject medicinal chemistry, I was drawn to the groups focusing on organic chemistry and also those working on functional imaging techniques. We agreed on a project on PET scan tracer molecules that was part of one of his PhD student's projects who would supervise me throughout the UROP. Once we had an outline of the project and agreed on the length of the UROP (mine lasted 10 weeks) I applied for funding through the College's application process and luckily secured a bursary for the duration of the UROP. This meant I could go ahead and register the UROP. Throughout this process from starting to think about what project I could be working on up to the registration my tutor was available and assisted me out in case I needed help.

In terms of the working atmosphere and working hours I was glad to experience something very different from the usual uni work. My hours were very flexible and there were no deadlines I had to meet. In general, I would say a UROP is very much focused on the student having a good experience rather than achieving certain goals. After not having been in the lab for almost a year I was happy that we took it quite slowly in the beginning and I had the chance to get used to the new working environment. As I became more confident I started working more independently and was able to set myself small deadlines. Aside from my supervisor there were two master students in my group who I also got involved with. I was interested to hear what they were working on and they were always happy to explain their work to me or help me if I got stuck.

This project has given me the opportunity to acquire new lab techniques and to become more independent in the lab. I had the chance to practice the skills I had previously learned online and to organise my own work over a short period of time. Usually, we only get 2-4 consecutive days of lab work during term time which makes it hard to gain confidence using the new techniques and does not allow you to manage your time independently. Having spent eight weeks in the lab now, I feel a lot more confident in planning and setting up a reaction, analysing NMR data and doing research to come up with an alternative synthesis route. The security of having a supervisor made this experience very enjoyable and gave me an even better insight into the research in his group as my project was only a small piece of a bigger picture. I also felt like I was part of their group as I attended weekly group meetings on Microsoft Teams where everyone, including me, presented their work. This allowed me to get feedback on the work I had done and to improve my presentation skills.

Luckily, this year the situation regarding COVID-19 allowed us to be in the lab everyday and so I was able to gain all the practical skills I had missed out on last year but I was also able to get to know new people who are more experienced than I am in the field of research they do. I can only recommend anyone who is interested in doing a UROP to give it a shot.