Work Responsibilities

• I worked in the Buckle group, one of the haematology labs of the Institute
• My lab’s research involves the genetic components underlying rare anemias and the three-dimensional organization of chromatin within the nucleus
• I worked on the chromatin project, which involved testing three different methods of performing FISH (Fluorescence In Situ Hybridization) and preparing samples for imaging under the microscope
• The goal of the final analysis was to confirm our hypothesis that one of the methods was superior to the rest in terms of preserving the chromatin structure
• I performed FISH protocols, DNA labeling reactions, ran gels, prepared slides for imaging, and learned how to use two different super-resolution microscopes
Work Responsibilities

• I also worked in cell culture almost every day, which means that I grew my own cells and maintained them to use in the experiments
• When I was not performing experiments in the lab, I had the opportunity to attend seminars presented by guest speakers for the WIMM staff once or twice a week
• I also attended all the lab meetings that my group was part of and learned from the presentations of other researchers in the WIMM
• Every Wednesday, I attended “Journal Club” which involved reading relevant journal articles and discussing them with the other lab members
The Buckle Group (some lab members)
The Lab

My lab bench
Most rewarding aspect of my work experience

• This was my first time working in a lab and, in the beginning, I did not know exactly how to perform most protocols, where to find the materials I needed, or how to use the complicated microscopes for imaging. However, I made sure to ask as many questions as I could and, by the end of the second week, I was working much more independently. I was able to adjust and learn very quickly and at the end of the internship my lab skills had improved beyond my highest expectations.
My work during a typical day involved preparing samples with labelled DNA loci at my bench and then imaging them on the microscope shown on the left.
Impact, Academic Choices & Career Plans

• My project was a collaboration with another lab in the Biochemistry department of the University of Oxford. I will continue to work on it during the Fall semester, when I will study abroad at Oxford and it will hopefully lead to a better understanding of the functional organization of chromatin in the nucleus.
• This experience obviously influenced my academic plans to study abroad and focus on research much earlier than most MOL students at Princeton.
• After working in the WIMM, I feel better prepared for my independent work at Princeton and I am also considering a career in medical research as an alternative to medical school.
Lunch at the cafeteria and cake with the lab group
Weekend trips to London...

...and going to an Arsenal game!