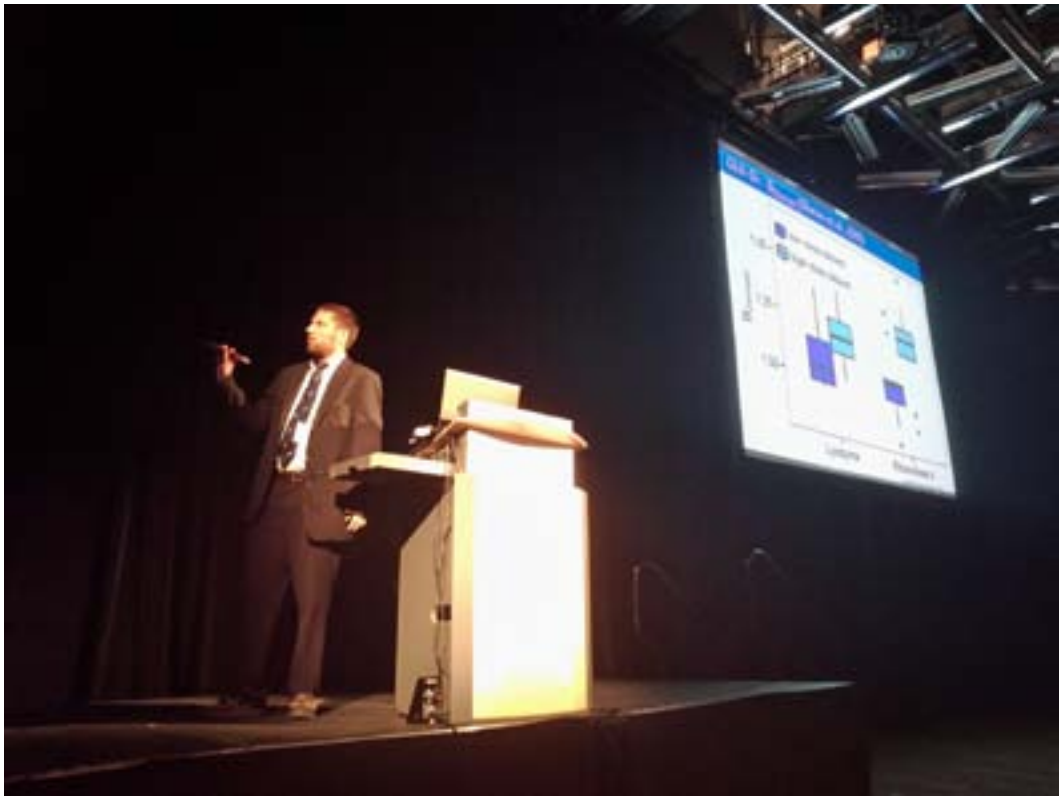

Crystallography Conference

I received the Kojo Minta Travel Award to go to the 23rd Congress and General Assembly of the International Union of Crystallography in Montreal, Canada. I am currently in the final stages of my DPhil at the Systems Biology DTC, and was selected to speak at the IUCr conference, the largest conference in the field – 8 days, 7 concurrent tracks, 700 speakers, 1,124 posters, and 2,500 attendees – about my research on radiation damage in protein crystallography.

Four years ago I had not even heard about crystallography. It is the main technique we use today to identify the shape and function of small molecules, proteins, and even viruses by growing micrometresized crystals and placing them in an incredibly intense X-ray beam, for example at the UK Diamond Light Source. Through this knowledge we can try and understand (and in the cases of viruses: hopefully manipulate and disrupt) the molecular machines that work inside every one of us. Unfortunately protein crystals are very fragile, and an intense X-ray beam is a very harsh environment. My research aims to understand how these protein crystals break, and to tell us when the crystals are too damaged to trust the data we gather from them.

I was the only student amongst the senior scientists within our presentation session, and felt immensly privileged to be able to give a well-visited talk in the largest presentation room at the most prestigious conference in the field. The financial assistance provided by the Kojo Minta Travel Award was an essential help in making this possible.

I met Kojo during my first year in Oxford, and I am glad to see that through this memorial fund his spirit will live on at St Hilda’s College.

Markus Gerstel