

Elective Experience – King's College Hospital Toxicology

I decided to use my elective to broaden my experience and understanding of mass spectrometry. Fortunately, the Sheffield-based laboratory where I was training had close links with the Department of Toxicology at King's College Hospital in London, with both departments being headed by Professor Robert Flanagan. Professor Flanagan put me in contact with his senior method development scientist, Lewis Couchman, who arranged a six-week programme in which I worked alongside some of the scientists responsible for developing and running the mass spectrometry assays at King's. Lewis allowed me to gain hands on experience in some of the assays that he was developing. This included a flow injection tandem mass spectrometry method for the analysis of clozapine and norclozapine which utilised a robotic platform for pre-analytical sample preparation, and the analysis of haemoglobin variants using high resolution mass spectrometry. I was also able to gain insight into the use of Q-Exactive™ accurate mass technology for the screening and confirmation of drugs of abuse in urine. Away from the toxicology laboratory, I spent a week working alongside David Taylor and Norman Taylor in the steroids laboratory and even had time to attend a porphyria clinic, something which I would not have had the opportunity to do in Sheffield. When I was not working, accommodation and nutrition was kindly provided by my parents in law and I was able to use the time in London to catch up with friends and family.

My elective experience was thoroughly enjoyable and allowed me to expand my knowledge in a way that I would not have been able to achieve at my home hospital. The experience gained at King's was a major contributing factor to my suitability for the job that I acquired following my STP training and I now work at Sheffield Teaching Hospitals developing mass spectrometry assays on our own instruments.