My haematology elective at The Alfred Hospital in Melbourne was thoroughly enjoyable. As it covers the whole of Victoria, studying haematology at The Alfred gives the opportunity to see unusual blood disorders that would seldom present to the haematologist. The majority of the inpatient population at The Alfred were suffering from a haematological malignancy. Some have been admitted for further investigation and definitive diagnosis; others were resident for chemotherapy or due to sequelae of their cancer. As The Alfred is a centre for bone marrow transplant, graft versus host disease (GVHD) was a commonly encountered condition. As a medical student, I found this a distressing condition to witness – particularly where patients had GVHD of the gut, as this was often refractory to treatment and inevitably led to protracted misery for those affected. In one instance, I observed the unusual complication of a patient developing GVHD following autologous stem cell transplantation. Following the principles of bone marrow transplantation, such a complication should not occur: transplanted stem cells should not recognise the recipient's antigens as non-self as there should be no genetic disparity. However, having reviewed the literature, this has been described previously in patients receiving autologous transplant for the treatment of multiple myeloma – but its aetiology is still debated and it remains an extremely rare event. With many inpatients having ablated bone marrow, even simple procedures like cannulation had to be performed using sterile technique, and this was something I found challenging. It also meant that patients frequently developed atypical infections caused by pathogens that I was completely unfamiliar with, which initiated a steep learning curve.

I spent a week shadowing the registrar for the Haemostasis and Thrombosis team, and with the prospect of my MBChB final exams looming large on the horizon, this was without doubt the most useful week, as the knowledge I gained here is readily transferrable across medical and surgical specialties. It was an excellent opportunity to learn about prescribing anticoagulants and treating thrombosis; we had a teaching session on novel anticoagulants, which was particularly valuable. Further, this represented an opportunity to see several haemophilia patients. This was a condition that I had underestimated in terms of

the morbidity that it inflicts on patients: it was truly life changing for those affected. Older haemophiliacs, who had received clotting factors concentrates before screening for blood-borne viruses, were often infected with HIV and Hepatitis B. Younger patients were spared the infective complications of treatment but were often hospitalised and bed-ridden for long periods following spontaneous haemorrhage and the need for four-hourly injections of clotting factors. Moreover, a proportion of patients who had received several courses of treatment for intramuscular bleeds and haemarthroses had developed antibodies to the recombinant factors, further complicating management and necessitating the use of factor VIII inhibitor bypass activity (FEIBA). Two extremely interesting patients were admitted during my time at The Alfred: one patient with acquired factor V inhibitor and another with acquired factor VIII inhibitor. Both are extremely rare, with an incidence of fewer than one per million persons per year. As such, I felt very fortunate to have been able to encounter these cases, which produced severe coagulopathies.

Whilst on elective I had the opportunity to attend weekly meetings where a registrar would present on an emerging topic in haematology. The first session was particularly of interest to me, as the topic was the use of chimeric antigen receptor (CAR) T cells as a treatment for leukaemia. I had previously spent a summer in a laboratory at the University of Pennsylvania, where I had heard of this novel cancer immunotherapy as it was being trialled at the time in The Children's Hospital of Philadelphia. Consequently, these weekly meetings only served to reinforce my belief that haematology was an exciting and rapidly developing specialty that I would be eager to train in.

I am extremely grateful to the Scottish Haematology Society for supporting my trip to Melbourne. The elective has served only to reinforce my desire to train in haematology, and to this end I have embarked upon a research project looking at predictors of survival in myeloma patients with renal failure. This was a tremendous experience that will undoubtedly guide my future career in the direction of haematology and academia.