

Doctors in Training Grant

FINAL REPORT

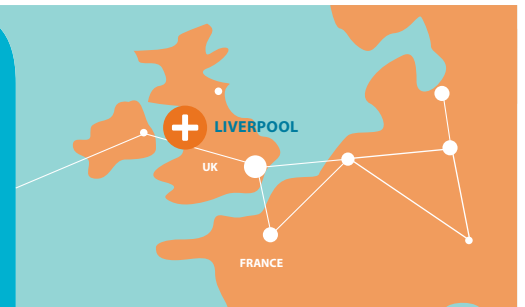


Winner of the 2023 Bowman Fellow's Prize

Dr Colby Hart

Ophthalmology Subspecialty Fellowship (Cornea Fellow)

Liverpool University Hospitals NHS Foundation Trust
Liverpool, UK

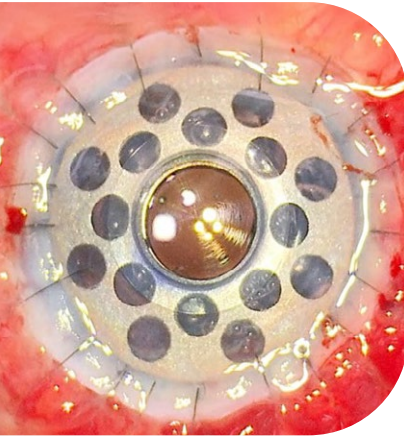


Without a doubt, my experience over the past 12 months working as the cornea fellow in Liverpool will go down as one of the best years of my life! I was very honored to be successful in my application for the fellowship, but I never anticipated that I would attain the degree of development both professionally and personally that I have. It is with great excitement that I am returning to Australia with a newfound set of clinical and surgical skills that I believe will benefit the community that I will serve.

The advantages of the clinical experience that I have gained were more unique than I had anticipated. As part of the fellowship, I was involved in performing one of the only Holoclar implantations performed in the United Kingdom. This treatment is for people who have developed limbal stem cell deficiency, often following severe chemical burns to their eye. It involves first taking a biopsy of healthy limbal stem cells from the patient's normal eye. These stem cells are then transported to a laboratory in Italy, where they are grown on a bioengineered dissolvable fibrin sheet. Once enough healthy stem cells have been cultured, the bioproduct is implanted back into the patient's eye which has limbal stem cell deficiency, where the transplanted cells imbed and start to function to clear the cornea and improve vision. I learnt a lot about the application process, funding and executing innovative surgical technology from my supervisor Professor Stephen Kaye during this process. The patient has had achieved a life-changing improvement to their vision which has inspired me to pursue application for such innovative technologies when I return to Australia.

I also was privileged to gain surgical experience in performing all forms of corneal transplantation. I feel competent now in my clinical and surgical ability to manage patients who require corneal transplantation to improve their vision and quality of life. The Liverpool University Trust not only performs all forms of corneal transplantation, but also performs Boston Keratoprosthesis surgery. This is a technology that is not currently offered in Melbourne, where I intend to practice as a corneal specialist. During my time in Liverpool there were four keratoprosthesis devices inserted, as well as numerous patients in the clinics who have had them inserted over the years. I saw firsthand how significantly keratoprosthesis surgery can improve the quality of life of patients who have been suffering from severe blindness for long periods of time. One of the patients that I performed this surgery on went from barely being able to see hands moving in front of his face for over 2 years, to being able to read almost to the bottom of the vision chart the day after the procedure was performed. He was so excited about the improvement in his vision that he went on the BBC radio to share his story. I hope to have the opportunity to offer this kind of surgery to the community in Melbourne when I return from the fellowship.

The 12-month fellowship also marked a number of significant milestones for me personally. My wife and I welcomed our daughter Olivia into the world at the Liverpool Women's Hospital. We had an outstanding experience having the birth through the NHS, which shone a positive light onto the healthcare system in this country. We have made the most of having Europe on our doorstep, taking Livy over to Greece, Portugal, France, Malta and Spain. She has swum in some of the nicest oceans in the world and she is only 8 months old! We also attended the family day of Eurovision which was held in Liverpool this year. My wife and I also participated in the annual Santa Dash event in Liverpool, where over 10,000 people dress up as Santa and complete a 5 km run to raise money for the Children's Hospital. Santa is a fantastic dress up costume when you are more than 30 weeks pregnant!



1. Photo of Professor Stephen Kaye, the Holoclar representative and myself after inserting the Holoclar
2. Boston keratoprosthesis after insertion intraoperatively
3. Winery in Bordeaux

I also benefited academically from the fellowship. My fellowship supervisor professor Stephen Kaye is an established clinical researcher, having published more than 350 journal articles. During my time in Liverpool, I worked alongside him on a number of research projects, including the use of artificial intelligence to diagnose and monitor the progression of microbial keratitis, managing a large biobank where human tissue is collected during routine surgery for research and the use of a novel OCT machine that allows greater resolution of the anterior segment structures of the eye. I was fortunate enough to be invited to present my work on artificial intelligence at the national Bowman club meeting, where I was awarded the 2023 Fellow's Prize for the best clinical research project completed by a fellow. In addition to this, the fellowship gave me access to some of the best conferences in the world which I attended, including the European Society of Cataract and Refractive Surgeons in Milan. Attending these meetings has allowed me to form networks with other anterior segment specialists across the world, which I think will be beneficial for me when starting out as a junior consultant in the coming months.

I feel grateful to have worked in the NHS in the UK during a time in which the healthcare system has had a number of problems that it has been facing. During the past 12 months there have been numerous occasions where both junior and senior doctors have been on strike requesting an improvement in working conditions and pay. It has been insightful to talk to the doctors and witness firsthand the strengths and weaknesses of the NHS, which has given me a newfound appreciation for the quality of the healthcare system that we have in Australia.

The process of cornea donation is not as streamlined in the UK as it is in Australia. In fact, there are a number of cornea transplant centers in the UK that have stopped performing these operations due to a lack of tissue availability through the national eye bank. I found it useful to listen to discussions about these problems at the Bowman club meeting, and I think there are numerous lessons that can be learnt and applied by the eye banks in Australia from the UK.

Overall, it has been one of the best years of my life both professionally and personally. I would strongly recommend to all of my colleagues to apply for fellowships or training abroad for the benefits that it offers in making you a more well-rounded doctor. This process is certainly made more accessible thanks to grants such as the Doctors in Training grant from MIGA, which I am extremely grateful for.

Each year MIGA's Doctors in Training Grants Program offers six Grants of \$10,000 to assist doctors in training whilst pursuing advanced training opportunities in Australia and abroad. Many different training types are eligible - visit our website to find out more and to apply.

If you're interested in applying for our DIT Grants Program, you must have medical indemnity insurance with MIGA. Thankfully, obtaining cover with MIGA is quick and easy using our Online Application Form. We recognise that your insurance needs change throughout your career, and offer different levels of policy cover for each career stage.

If you have any questions, simply contact our expert team.

General Enquiries and Client Service 1800 777 156

Claims and Legal Services 1800 839 280

Website www.miga.com.au

Email miga@miga.com.au

