Doctors in Training Grant

FINAL REPORT

Lazy summer afternoon at the V&A courtyard

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Advanced Cardiac Imaging (CT/MRI) Fellowship

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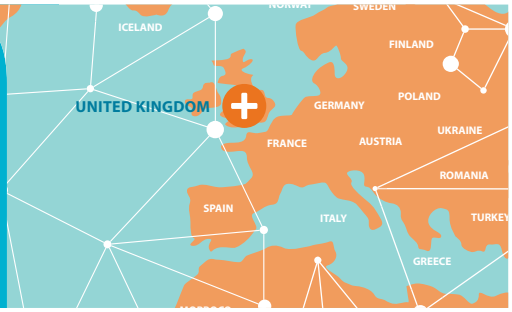

It has now been a month since my return home from London. Mirroring my departure from Australia in 2020, my journey home has been most atypical with a returning flight of just 8 passengers due to Victorian in-bound caps, multiple nasopharyngeal COVID PCR swabs and 2 weeks of hotel quarantine.

Back home now and reflecting on my time in London has reaffirmed to me the incredibly rewarding nature of my 12 months away.

After a decade of training in Melbourne before this fellowship, as cliched as it may be, I did not realise that my medical perspective was narrowed and it has been truly valuable for me to observe the differences and similarities in cardiology practice between London and Melbourne.

Learning alternative approaches to diagnosis/treatment and seeing how the same data/literature might be interpreted and acted on differently depending on the local context has certainly contributed significantly to my overall growth as a physician. That said, it has also led to an appreciation of the high standard of cardiac care offered by our local Australian institutions.

From a professional perspective, with London in lockdown for much of my year there, I have been able to complete much more than anticipated without competing social distractions. Additionally, with England's reopening and pent-up backlog of non-Covid medical care, the high demand for cardiac imaging meant that I had ample case exposure to a wide scope of various pathologies.

Certainly, multiple training activities which I had been looking forward to were cancelled due to pandemic restrictions, however virtual/online iterations salvaged some of these educational opportunities. I have also been able to complete several projects (currently undergoing peer review for publication) evaluating the utility of MRI feature tracking strain in pulmonary hypertension. Specifically, I examined the value of MRI feature tracking strain in distinguishing post from pre-capillary pulmonary hypertension, and also assessed the role of strain in evaluating right ventricular compensation/maladaptation in patients with chronic thromboembolic pulmonary hypertension undergoing pulmonary endarterectomy. With the complex geometry of the right ventricle, cardiac MRI is uniquely suited for precise volumetric quantification and functional assessment of the former in pulmonary hypertension patients. My work sought to identify additional applications of cardiac MRI in pulmonary hypertension patients which may offer in-depth physiologic insights and improve patient triage and treatment.

Personally, travel was still significantly restricted for almost my entire year. Towards the end of my fellowship, my wife and I took a one-week road trip around the south of England. We visited numerous beautiful regional towns, and were finally able to see England outside of our typically London-centric lens. Eventually as vaccination rates rose, we were able to travel to Italy for a holiday and what a joy it was. The pleasures of a European holiday were certainly magnified after almost 2 years of lockdowns and restrictions. To our surprise, Italy was buzzing with (predominantly American) tourist activity with restaurants full and museums booked out.

With the conclusion of our Italian sojourn, it was a frantic return and final week in London of packing and fire sales of our furniture before the long journey home to Melbourne in lockdown.

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1. Stonehenge
2. Crowds at Galleria Vittorio Emanuele in Milan
3. Farewell lunch with my supervisors

Going forward, I am eager to apply my new skills and knowledge in my practice. With excellent ability for tissue characterisation, cardiac MRI would be invaluable in enhancing my diagnosis and management of cardiomyopathies. Similarly, cardiac CT would feature prominently in my approach to chest pain evaluation in selected cohorts.

My new training and knowledge of these 2 modalities, in combination with my prior echocardiography training, has enriched my understanding of cardiac anatomy and enhanced my ability to optimise an imaging strategy for complex clinical cases.

As stated before, the very high case volume in London has allowed me to develop proficiency over the relatively short duration of a year. I am very enthusiastic with teaching and the recency of my experience would certainly facilitate my intention to contribute to cardiology registrar/fellow imaging training back home.

I have developed close relationships with my UK supervisors and they remain an invaluable source of advice at this early stage of my career. I also remain involved in several ongoing imaging projects.

Like so many of my colleagues who have undertaken sub-specialty training overseas, the latter remains a very costly endeavour with expenses of both relocation and financial commitments back home. But beyond the financial burden, attendant logistical and administrative challenges often deter doctors-in-training from pursuing an overseas fellowship. However, for anyone considering an overseas fellowship but is daunted by all the accompanying challenges, I would attest that the personal and professional enrichment from following through is well worth the fellowship cost (even if undertaking said fellowship during a pandemic)! I would like to sincerely thank MIGA for supporting my further training and I look forward to contributing to improving cardiac care for my patients.