

Travel report for the James IV Fellowship

Traveller:

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Total duration of travelling: 6 weeks (broken into two parts)

Before giving a detailed account of my James IV travel, I would like to thank the Association for giving me this once-in-a-lifetime opportunity travelling around the world. I am sure all the memories and experiences that came with this fellowship would stay with me for the rest of my life. In total, I travelled across 3 continents or 4 countries over a total period of 6 weeks. In addition to thanking the Association, I would like to take this opportunity to thank my department and my own team for their support by arranging clinical duties coverage while I was away. It was not easy given the period of time and I think my colleagues did put in extraordinary effort in covering my duties. Nevertheless, the travelling has given a different perspective to life and work and has also opened up new research opportunities and directions. My travel has also offered me the opportunity to rekindle old friendships and to establish new ones. Perhaps, my travel was best summarized by this quote “*a journey is best measured in friends, rather than miles*”. My fellowship would not have been what it was if I did not have support and friendship from my overseas friends and colleagues who were incredibly busy people but were ever so willing to give up their precious time.

Like many previous James IV fellows, I divided my Fellowship into two blocks. The first block started in the summer (July) of 2015 in UK where I spent a total of three weeks travelling to various hospitals and universities in the UK and Dublin (Ireland). At the end of my first block, my family came over and joined me in London before we spent a further two weeks in Europe. The second block took place in the spring (April) of 2016 where I travelled without my family to Seoul (South Korea) and the USA.

First block (July 2015)

My first stop was Sheffield where I visited the University of Sheffield and the Royal Hallamshire Hospital. The host was Dr. Barney Harrison who is a world renowned endocrine surgeon and has been an important contributor to the highly successful British Thyroid Association clinical practice guidelines on the management of thyroid cancer. I first met Barney all the way back in 2006 when he was an invited speaker at IAES post-graduate course in Crete. On my first night of arrival (around 20:00), he was very kind to take me out for a casual supper in a wonderful local pub called “Ladybower Inn”. At dinner, we discussed a good range of topics from work to

family. During the conversation, I also learned about his planned retirement later in the year and his time working for the NHS. He was an incredible experienced surgeon and we discussed some of the controversies in endocrine surgery such as the use of prophylactic neck dissection in papillary thyroid carcinoma and nerve monitoring.

On the next day, I was given a quick car tour to the beautiful countryside outside Sheffield (near the Pennines) before heading back to the hospital. In the morning, I spent a half a day at their multi-disciplinary thyroid clinic where I met up with two of Barney's working partners (Dr. Balasubramanian, an endocrine surgeon and Dr. Amit Allahabadia, an endocrinologist). At the same time, he also showed me the web-based audit system for thyroid and parathyroid surgeries organized by the British Association of Endocrine and Thyroid surgeons. It was an impressive system in that over a thousand of endocrine procedures had already been being entered into the system to audit individual endocrine surgeon's results. It was something that we, in Hong Kong, could perhaps follow. Later that afternoon, I delivered a talk on "Operative Strategies in preventing hypoparathyroidism after total thyroidectomy" and discussed various surgical tips in reducing surgical morbidities in their surgical grand round. Interestingly, Dr. Balasubramanian also shared his view and interest on this topic. Later I realized he was one of the first people to test the feasibility of using near infrared fluorescence imaging using intravenous low-dose methylene blue in thyroid and parathyroid surgeries. On my last day, I spent an afternoon observing Dr. Balasubramanian's operations and we proposed perhaps future collaborations in clinical research.

Next, I travelled to Oxford where I visited the John Radcliffe and Churchill Cancer Hospital. The host was Dr. Radu Mihai, a renowned endocrine surgeon in UK who was originally from Romania. The level of clinical care and quality of clinical research were impressive in both hospitals. Dr. Mihai and his team established, in my opinion, one of the best adrenal tumor programs in the country. They performed a great number of difficult, complex adrenal cases each year. During my stay, I watched some unusual adrenal cases including a young lady presenting to emergency comatose because of extreme hypercortisolism. She was later diagnosed with metastatic adrenal cortical carcinoma and the patient eventually needed an emergency resection of the tumor because of the high cortisol level. I also had the opportunity to meet with Professor Ashley Grossman who is a world expert in the genomics of pheochromocytomas and

paragangliomas. From our conversation, I was able to learn a great deal on the genetic basis of familial pheochromocytoma syndromes. I also met up with Professor Paul Johnson (Professor and director of the Islet Transplant Programme) who is a previous James IV fellow and coincidentally just came in the same year to our department serving as an invited external examiner in the final MBBS examination. On my last day of my Oxford visit, I attended their annual Oxford Surgical Symposium organized by the academic center at John Radcliffe Hospital. At the meeting, all trainees and fellows gathered and gave their presentation on their research. The highlight of the day was the lecture delivered by Professor Harold Ellis who gave a historical perspective in surgery and healthcare in general. It was truly inspiring and amazing to see Professor Ellis who served in the NHS for 67 years.

My next stop was University Hospital of Wales, Spire Cardiff Hospital, Cardiff where I was hosted by Dr. David Scott-Coombes. Dr. Scott-Coombes is a renowned endocrine surgeon who was serving as the president of the British Association of Endocrine and Thyroid surgeons (BAETS). He is a true gentleman with a good sense of humor. I was also deeply impressed by his depth of knowledge and experience in endocrine surgery. It was really fantastic spending a day in the clinic and operating theater with him. Apart from work, we also shared our views on the cricket which was being played at the time when I was in Cardiff. I was fortunate enough to be able to watch my first-ever live cricket test match there. During my stay, I also met his partner (Dr. Michael Stechman) who was previously trained in Oxford. While I was there, I also attended their fantastic tumor board meeting where they discussed some interesting neuroendocrine tumor cases and updates on neuroendocrine treatment.

After that, I left Wales and flew to Dublin, Ireland where I visited the Royal College of Surgeons of Ireland (RCSI), Beaumont Hospital, Dublin. I was warmly hosted by Professor Arnie Hill who is a previous James IV fellow and one of the directors for the Association. He was an excellent host and his team did everything possible to ensure my time in Dublin was memorable and worthwhile. Although it was my first time in Dublin, I really had a great time at RCSI. In my view, the RCSI is an amazing medical institution with a great emphasis on medical education and research. Professor Hill was responsible for the medical school and department of surgery. During my stay, I spent some time in the operating theater where I scrubbed in with Professor

Hill and his fellow. It was a great thrilling experience for me to be able to operate with him as he was a technically fantastic surgeon with a good range of general surgical experience. During my stay, I had the opportunity to teach one of his fellows using ultrasound in vocal cords assessment before thyroidectomy/parathyroidectomy. At their monthly education symposium, I gave a 20-min talk on the “Reducing morbidities in thyroid surgery” for the residents and students. The talk was well received and generated some interesting discussions. I also met with Dr. Leonie Young who was looking after basic science projects in the laboratory. Their research interests mainly focused on the carcinogenesis of breast cancers. In my last few days of my visit, I also had the opportunity to visit interesting sites such as Trinity College Dublin, Dublin Castle and the Guinness Brewery.

My final and probably one of the most exciting stops in my first block was the Imperial College, St Mary’s Hospital, London. It was hosted by Professor the Lord Ara Darzi. Professor Darzi has been a good friend of our department and has been a frequent visitor to our department. He was an inspiring figure and has basically built a massive empire focusing on medical innovations, technological advances and policy making. I think the Imperial College would be an ultimate example of the term “*thinking out of the box*” where good ideas are discussed and translated into useful clinical tools. His approach to medical care was to transform ideas from various disciplines including the engineers, computer and software specialists, designers, epidemiologists, statisticians..etc. into medical applications. During my stay, I visited the Hamlyn Centre where new body imaging and virtual reality were being developed. I also visited the Centre for health policy, the Evelyn de Rothschild Clinical Skills centre, the National Institute for Health Research, the Wolfson laboratory for robotic assisted microsurgery and the Health Innovation Exchange (Helix) centre. On the clinical side, I met with Dr. Neil Tolley who was the senior consultant ENT-Thyroid Surgeon and attended the thyroid cancer tumor board. I also visited the Royal Marsden Hospital and the Charing Cross hospital in Hammersmith. On my second last day of visit, I gave a 20-min talk on the “Innovations in thyroid surgery” for the staff and residents at their monthly symposium. The talk was well received.

Second block (April 2016)

My first stop was in COEX, Seoul, South Korea where the 15th biennial Congress of the Asian Association of endocrine Surgeons was held. It was a great biennial international meeting this year with over 550 registrants from Asia and Overseas, probably the largest in the history of the organization. Many prominent overseas surgeons including Dr. Jatin Shah (from Memorial Sloan Kettering), Dr. Michael Xing (from Johns Hopkins), Dr. Edwin Kaplan (from University of Chicago), Dr. Akira Miyauchi (Kuma Hospital) and Dr. Quan-Yang Duh (from University of California San Francisco) attended the meeting. I was fortunate enough to be an invited speaker for the Congress and gave a talk on “Surgical treatment of papillary thyroid microcarcinoma (PTMC)”. The talk was well received and generated many interesting questions and meaningful discussions during the session. During the meeting, I also attended the council meeting with other international members and decided that the next meeting would be held in New Delhi, India.

Next, I attended the 37th annual meeting for the American Association of Endocrine Surgeons (AAES) in Baltimore, MD. The local arrangements chair was Professor John Olson, Jr (Vice Chair of Surgery at The University of Maryland School of Medicine). Like previous meetings, the entire congress was made up of 35 research presentations and the quality of the research presentation was excellent. I was an invited faculty and was invited to moderate a free paper session with Dr. Tricia Moo-Young from Northshore, Chicago. The meeting was a great meeting not only because it had a great scientific content but also because I was able to meet up with many surgical colleagues again after I missed the last year’s meeting due to work commitments. On the last day of the meeting, I presented my original research work titled “Indocyanine green fluorescence angiography for quantitative evaluation of in-situ parathyroid gland perfusion and function after total thyroidectomy”. This will be published in *Surgery* in the early 2017.

Following the AAES meeting, I flew to New York where I visited the Memorial Sloan Kettering Cancer Center (MSKCC) and the New York-Presbyterian Cornell Hospital and their hosts were Dr. Ashok Shaha and Dr. Tom Fahey, respectively. MSKCC was undoubtedly an incredible institution with many highly-skilled surgeons and talented clinician-scientists working under one roof. In endocrine surgery, MSKCC was a well-known center of excellence in the field of thyroid cancer. Both Dr. Shaha and his partner, Dr. Michael Tuttle (a world renowned

endocrinologist) served on the board for the AJCC thyroid cancer staging system. From me talking to these two people, I learned that there would be a change in the staging system in the next (or the 8th edition) of the AJCC/UICC system and the justifications I was fortunate enough to not only spend a day with Dr. Shaha at the clinic but also a day with Dr. Michael Tuttle. Dr. Tuttle was a renowned endocrinologist with an enormous interest in thyroid cancer and possessed incredible amount of knowledge on management of thyroid cancer. He was the first person in the USA to initiate the active surveillance trial for PTMCs following the Kobe protocol and to date, he has recruited over 250 patients with PTMC for surveillance (i.e. without immediate surgery). He highlighted the difficulties in conducting such surveillance trial in the United States and they included patients tended to move or change physicians / hospitals, the need for ultrasound data storage to identify and report changes, clinicians and patients' education and the need for evaluating quality of life during surveillance.

After MSKCC, I went to visit Dr. Tom Fahey who is the Vice Chairman of the Department of Surgery, Chief of Endocrine Surgery, Director of the Endocrine Oncology Program, and Professor of Surgery at Weill Cornell Medical College. I attended their surgical grand round where Professor David Hoyt gave a lecture on "Damage control resuscitation: history and current status". He is not only the president of the American College of Surgeons but is also a distinguished researcher in the field of surgical trauma. After that, Dr. Fahey and Dr. Zarneger accompanied me to the operating room where I observed several cases of open thyroidectomies and robotic procedures. That afternoon we had a wonderful discussion on some of ongoing controversies in management of differentiated thyroid carcinoma. We were particularly interested in the discussion of a paper published in JAMA oncology that month about the "Nomenclature Revision for Encapsulated Follicular Variant of Papillary Thyroid Carcinoma" by Professor Nikiforov. That paper attracted many media attention and generated much controversies within the endocrine surgical community.

Our last stop was Duke University where I was hosted by Professor Julie Ann Sosa and Professor Sanziana Roman. I was invited to stay at their home during my visit. They were excellent hosts and they really made me felt at home. I was deeply impressed with the quality of the ongoing clinical research at the department of surgery at Duke. I attended their surgical grand round

where they invited Professor Seth J. Karp to talk on immunology in liver transplantation. This was followed by the annual research day for the residents. The quality of the resident presentations was really excellent. I was also impressed with how each of the residents handled the questions following the presentation. This gave me the idea that perhaps our department should have a similar research day to encourage our residents conducting basic and clinical research. During my stay, they just opened a new center for studying outcome researches. The center was called Surgery Clinical for Outcome Research Center or SCORES and was directed by Professor Sosa. The center was where the multi-disciplinary team came together to develop strategies for analysis of population databases such as the SEERS, NCD..etc. Professor Sosa and her group were very productive and published several important and high-impact papers in the JAMA, JCEM and Annals of Surgery. With our common research interest, we hope to collaborate in future projects such as analysis of multiple endocrine neoplasia type I.