



The Ronald Raven Travelling Fellowship, 2022

A Report by Nicholas Eastley

**Musculoskeletal Oncology Fellowship,
Department of Orthopaedic Surgery,
Mount Sinai Hospital,
Toronto**



Introduction

The Toronto sarcoma service is the largest sarcoma service in Canada, and is renowned for its established orthopaedic oncology fellowship programme. The programme carries learning objectives aligned with the skills necessary to practice as a consultant sarcoma surgeon in the United Kingdom, making it an ideal destination for me to undertake my post-CCT fellowship in 2022-3.

Organisation and Logistics

I first approached the sarcoma team at Toronto's Mount Sinai Hospital (MSH) 3 years prior to my CCT to discuss fellowship availability. Following this a virtual interview was quickly arranged in the autumn of 2019, with a proposed fellowship start date of August 2022. Following my interview, the administrative team at the University of Toronto efficiently guided me through the vast amounts of administration necessary to practice medicine in Canada. Despite this guidance, the sheer volume and complexity of paperwork required made this a taxing, stressful and expensive process. Necessary steps included registration with the College of Physicians and Surgeon of Ontario (CPSO), securing medical indemnity with the Canadian Medical Protective Association (CPMA), registration with the University of Toronto, VISA applications, extensive public health checks, employment contracts, security checks and bank account applications. In total this process took in the region of 9 months, costing in the region of £5000 (an expense helped greatly by the Raven Travelling Fellowship for which I am extremely grateful to BASO~The Association for Cancer Surgery). Eventually I arrived in Toronto 2 weeks prior to my fellowship's planned start date. My wife and 4 week old son were scheduled to arrive 3 weeks later, providing me time to arrange local accommodation, healthcare cover and finalise bank accounts and mobile phone contracts amongst other things. During this time I also attended Mount Sinai Hospital and Princess Margaret Hospitals for final inductions – a smooth process that the administrative team guided me through very helpfully.

Department and Training

The Toronto sarcoma service is based in Mount Sinai Hospital (MSH) and Princess Margaret Hospital (PMH) which are located next door to one another in central Toronto. The surgical teams are based at MSH (where all surgeries are performed) whilst the majority of (neo) adjuvant treatments are delivered at PMH. The orthopaedic sarcoma team consists of 3 consultants, 3 fellows and 3-4 residents (registrar level equivalence). This team is supported by 2 designated oncoplastic surgeons, and they regularly operate alongside vascular, urology and general surgical colleagues.

International orthopaedic oncology fellows have no formal on call responsibilities. On average each fellow attended 1-2 consultant led clinics per week (with the option of attending more). Teaching formed a central part of these, with every patients' radiological investigations and surgical plans discussed extensively. In addition to consultant's own clinics, a combined weekly clinic was held with the radiation and medical oncology teams at PMH. This also offered huge educational value, with the opportunity to discuss the indications and practicalities of various non-surgical oncological therapies with extended members of the MDT.

Operating lists were generally held daily, with multiple theatres often run simultaneously. A hugely varied range of surgeries were performed, with most for soft tissue sarcomas, benign aggressive bone tumours, primary bone sarcomas or metastatic bone disease. Fellows were generally expected to supervise a resident during surgeries, guiding them closely with consultants intervening as required. Each case is reviewed prior to surgery, with the relevant anatomy and wider educational points discussed. During the year I performed a large range of surgical techniques including multiple endoprosthesis replacements, vascularised bone grafts, structural allografts, rotational flaps and various ablative surgeries including hind and forequarter amputations. In total I completed over 210 cases including 90 soft tissue sarcoma resections and 20 primary bone sarcoma resections including multiple pelvic and sacral resections.

Mount Sinai Hospital is currently undergoing a dramatic expansion, which included the construction of a novel hybrid theatre suite in 2021. This facility provides surgeons with intra-operative computer tomography, delivering real time 3D anatomical information during complex resections. In addition to the surgeries outlined above, operating in this theatre also provided me the opportunity to gain firsthand experience of planning and undertaking navigated musculoskeletal oncological resections (which are increasingly being performed in the field of musculoskeletal oncology.)

A large emphasis is placed on training by the entire Toronto sarcoma service team. The fellow's weekly rota included several formal teaching sessions delivered by consultants, including 7am

rounds on Mondays, Wednesdays and Thursdays covering a wide range of topics. Two weekly sarcoma multidisciplinary team meetings were held, which offered an excellent opportunity to discuss recent biopsy and resection specimens. Ample opportunity was also provided at these to review patients' imaging, clinical cases and any proposed/completed surgeries. Fellows are fully supported in any wishes to attend training courses. This was highlighted by my full sponsorship to attend a cadaveric musculoskeletal oncology course in New York in August 2022, which was a hugely enjoyable and informative two days.

Research

The Toronto sarcoma group has an excellent reputation for producing high quality research, and a strong onus is placed on fellows to continue this during their fellowship. The department has two designated research personnel that routinely consent patients and collect outcome data. Over many years this has produced an extensive database, to which fellows have access to during their placements. Fellows are expected to produce novel research and present this work at the Canadian Orthopaedic Association (COA) annual conference. In addition they are supported, if they wish, to attend any other national or international conferences. This meant that in addition to the COA annual conference in Calgary, I was also able to attend the Musculoskeletal Tumour Society conference in Florida with my family and co-fellows, and the Toronto International Sarcoma Symposium – two great opportunities to hear experts in the field of sarcoma talk. As well as this clinical research, a departmental virtual translational meeting was also held on monthly basis. During this meeting clinical scientists from around the city discussed their work with the extended oncological team, showcasing the most up-to-date translational sarcoma research, and offering fellows the opportunity to network with researchers with similar interests.

Toronto, Ontario and Canada

Toronto provided a fantastic destination to spend the year living and working. The city offered a safe environment for my wife and me to raise our young son, with a range of social opportunities

available for new visitors. The city's winter temperatures (-32°C at their lowest) provided certain challenges, although the public transport network meant travelling around the city was painless (and relatively cheap) throughout the year. The locals were extremely welcoming, and the city offered a huge range of dining and entertainment options. Further afield, Ontario houses many beautiful national parks that were within driving distance for us to visit, including the beautiful Algonquin national park, whilst western Canada provided an amazing road trip destination following completion of my fellowship before returning to the UK.

Summary

The year my family and I spent in Toronto was overall the most exciting and enjoyable we have ever had. The onerous administration and financial expenses associated with practicing in Ontario are hugely outweighed by the educational benefits of working with the Toronto sarcoma service, and the personal memories we have returned with. The team at MSH have a clear focus on training, and the opportunities provided to me whilst working were remarkable. The fellowship provided me with an ideal preparation for a career as a consultant orthopaedic oncology surgeon, and I owe a huge debt to all of the team in Toronto for their support, patience and friendship throughout the year.