

TWJ Otolaryngology and Neurotology Fellowship
Halifax, Nova Scotia, Canada
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It is with immense gratitude and honour that I write this report regarding my 12-month Fellowship in Otolaryngology and Neurotology in Halifax, Nova Scotia, Canada. The application and interview process for the fellowship was very streamlined and since this fellowship has been running for over 15 years, it has a well-trodden path.

I commenced my fellowship in July 2017 and arrived to glorious weather in the harbour city of Halifax, on the Atlantic coast of Nova Scotia. Canada was celebrating its 150th anniversary and there was lots happening as part of this celebration including fireworks, street processions and festivals. Halifax is an extremely friendly place. It has something for everyone, from the hustle bustle of Spring Garden Road to the peace and tranquillity of the harbour to the historic fortifications at the Citadel Hill.

My fellowship director was David Morris, who himself had been the first fellow 15 years previous to Professor Manohar Bance. David Morris had trained in the north of England so we instantly had some common ground. The main hospital in Halifax is the Queen Elizabeth II Health Sciences Centre which is spread over 2 main sites - the Victoria General site and the Halifax Infirmary site, both of which are within walking distance of each other. The children's hospital, IWK Health Centre, is adjacent to the Victoria General site allowing trainees to get exposure to both an adult and a paediatric caseload. These hospitals provide tertiary level otolaryngology care attracting patients from across the Maritimes, which consist of 4 provinces: Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland.

The hospital is affiliated with Dalhousie University and the fellow is granted recognition as a Lecturer on the Academic Staff in the Department of Surgery. Researchers from

the university work closely with the Division of Otolaryngology in the Sensory Encoding and Neural Sensory Engineering (SENSE lab) facility which is located on the same floor as the outpatients department. Also located on the same floor is the temporal bone laboratory, equipped with 2 work stations for drilling temporal bones for practicing and perfecting procedures and teaching and training residents.

My weekly timetable consisted of a minimum of initially one and then two whole days' operating, one day set aside for research and the rest of the week allocated to clinics. Initially my fellowship director was solely Dr Morris, as Professor Bance had been recruited by the University of Cambridge and relocated to the UK. He was replaced by Dr Nael Shoman who is a Canadian-trained otologist, but who completed a US fellowship offering a differing approach and surgical skill set. This was exactly what I wanted from the fellowship, so that I could pick up a variety of skills to use as and when needed in my daily practice.

The first Monday of the month was Maritime Lateral Skull Base Clinic, a busy multi-disciplinary clinic with the expertise of both the neuro-otologist and neurosurgeon. Every 3 months, there was a dedicated NF2 specialist clinic. Also monthly there were Complex Paediatric Otology clinics, consisting of complicated cases filtered by the paediatric otolaryngologists at the adjacent IWK site. The clinic exposure usually consisted of complex tertiary referrals, typically patients requiring revision surgery or specific advanced otologic skills. The ground work for most of these patients was already done with high-definition CT scans of temporal bones and audiometry available at the consultation. This meant a decision and management plan could be made at the first meeting for most of the patients.



David Morris and me hard at work on a “devastated ear”.

The surgical experience was the most valuable part of my fellowship and certainly the main reason that I undertook it in the first place. During my time, I was involved in just over 260 procedures most of which were complex, revision cases. For future trainees the numbers will be higher as Dr Nael Shoman commenced in November and so I started operating with him just after half-way into the fellowship. A breakdown of the cases is as follows:

Tympanoplasty +/- Ossiculoplasty 83

Tympanomastoidectomy with or without mastoid obliteration 66

Complex tympanomastoidectomy with CSF leak repair/facial nerve decompression 22

Cochlear Implant 29

Stapes 19

MIPS 6

Vestibular schwannoma 7

Glomus tympanicum 1

Canaloplasty for exostoses 10

Blind sac closure 6

Vibrant Soundbridge 3

MedEl Bonebridge 8

One of the key points I will take away is Dr Morris's unique eye for perfection and how he inspires all his trainees and fellows to be meticulous. Following each case, he concludes with a detailed operating note and hand-drawn illustration showing 3 key stages - the ear at the start with the pathology, the ear mid-way once the pathology has been removed and the ear has been so-called 'de-constructed' and then lastly the ear once reconstructed. This means that postoperatively it is clear what took place in the surgery at a glance. It also gives the surgeon the opportunity to reflect at the conclusion of each case, definitely something I will include in my practice. In fact, it is clear that Dr Morris has a fascination with art and uses it regularly as a teaching aid, again something I shall try to put into practice.

I was privileged to work with the SENSE lab researchers on Optical Coherence Tomography and Optical Clearing Agents and their use in analysing the middle ear. I presented my findings at the Politzer Society meeting in Las Palmas de Gran Canaria in February 2018. The cost of the trip was covered by the Division and I was fortunate enough to spend 3 days learning about new developments from pioneering Otolologists from all around the world and hearing how they practice. I also presented some work I was doing with Dr Morris on the use of Silastic in the middle ear. During my year, I also presented a poster at the Canadian Society of Otolaryngology, Head and Neck Surgery meeting in Quebec City. Again, the cost of this trip was covered by the Division and it gave me an opportunity to update my knowledge on broader aspects of ENT. It was also an excellent chance to explore the beautiful, historic city of Quebec and nearby

Montreal - highly recommended! Nearing the end of my fellowship, two further presentations of my work were made at the 15th International Meeting on Cochlear Implants and Other Implantable Audiology Technology in Antwerp.

Both David Morris and Nael Shoman bring more to the fellowship than just being educational supervisors. They both have a likeable sense of humour and calm temperament which is endearing. David Morris has some unique sayings when counselling patients that I now find myself often repeating including “life is a marathon and not a sprint”, “we will draw a line in the sand and make a decision” and “devastated ear”. Nael Shoman on the other hand is a very innovative surgeon who is constantly encouraging trainees to challenge their ideas and thinking with the aim to improve. He conducted weekly teaching sessions where we would spend half an hour discussing a chapter from an Otology book such as Otologic Surgery by Brackmann et al. It gave me the chance to ask any niggling question I may have had.

The Division in Halifax has a significant focus on teaching and training and this is exemplified by monthly journal clubs (hosted in the homes of Staff members and catered for with delicious take-away food), weekly Grand Rounds and the annual Residents’ Research Day. There is an annual temporal bone dissection training day for the Residents where the Fellow is included as part of the core Faculty. These offerings give ample opportunities to learn and also to present to the Division as a whole. The Otologists have strong and long-standing relationships with the major hearing solutions and cochlear implant companies, who were keen to introduce their products and innovations and to offer device-specific training using simulation models.

Overall, my fellowship was an invaluable experience for me and I am looking forward to putting into practice the many skills and techniques I have learnt. I am immensely grateful to the TWJ Foundation for providing me with this opportunity and would highly recommend it to future trainees.