trainee matters

Reports of Two Overseas Clinical Fellowships

Jonathan Bernstein

'Trainee Matters' Section Co-editor

Jonathan Bernstein, MRCSEng, DOHNS, Specialist Registrar in Otolaryngology, University Hospital of South Manchester, UK.

Nazia Munir

'Trainee Matters' Section Co-editor

Nazia Munir, MRCS, DOHNS, ENT Specialist Registrar, Mersey Deanery, Department of Otolaryngology, University Hospital Aintree, Liverpool, UK.

Correspondence
jbernstein2001@hotmail.com
naziamunir@nhs.net

Declaration of Competing Interests
None declared.

This joint article by two authors reports on two fellowships, both at St Paul's Hospital in Vancouver. Carl Philpott writes about the rhinology and anterior skull base fellowship and Matthew Clark writes about the otology and neurotology fellowship.

Vancouver sits at the mouth of the Fraser River on the Pacific Rim, nestled by mountains to the north and east. It occupies a truly idyllic location, with a great quality of living, frequently topping the polls as one of best cities to live in around the world. It has a population of about two million, a multicultural mix of people with a notably large group of Chinese whose numbers swelled following the return of Hong Kong to China just over 10 years ago. St Paul's Hospital itself is located in the Downtown core of the city, though with the tertiary service provided there, it draws patients from all over the province of British Columbia, as well as from further afield at times, like from the Yukon, Alberta, Manitoba and Saskatchewan.

The fellowships are both advertised on the Canadian Society of Otolaryngology website, though found by us by word of mouth. Open to international applicants, the sinus fellowship is in its seventh year and the otology one is in its fourth, though both of us were the first British trainees in post. The positions were awarded after competitive interview. For the otology post this involved a visit to the department, presentation at grand rounds and shadowing the job for a week. While this was quite a commitment, it did help ensure that the position was right for me and confirmed that I would be comfortable working with Dr Westerberg for a year! For the rhinology fellowship it was Google to the rescue. Having read Dr Javer's website, a visit to Vancouver to see the department and put a face to my CV was in order. After shortlisting, an interview conveniently took place in Rome to tie in with a meeting Dr Javer was attending.

Dr Amin Javer is Director of the St Paul's Sinus Centre. He himself trained as a fellow under Dr Frederick Kuhn in Georgia, USA from 1998-1999, and a flavour of Dr Kuhn's philosophies is very much present in the fellowship programme, with competency in frontal sinusotomy a key skill to be acquired. Dr Brian Westerberg runs the St Paul's Rotary Hearing Clinic and like Dr Javer is also Associate Clinical Professor at the University of British Columbia. He trained as a fellow under Dr Rodney Perkins and Dr Joseph Roberson at the California Ear Institute at Stanford University. Amongst other things, Dr Perkins was the first to develop the KTP laser for medical use, and its use in ear surgery forms part of Dr Westerberg's surgical armamentarium. Both supervisors have a keen focus on surgical knowledge and technique and work in a relaxed manner, providing an environment in which one can flourish.

Funding

Neither position draws a salary, so funding needs to be found from sources in the UK (although there may be some resources available locally). This is a slight drawback, though there are many different places from which sponsorship can be sought (check the Royal College of Surgeons of England website, the RSM, TWJ Foundation, medical companies, your old school, and so on). We were both able to raise in the region of £20,000, which when converted to Canadian dollars went a long way to cover the year's expenses. However, the inevitable debt that also arose was considered money well spent by both of us. There is a lifetime to recuperate the costs, but just a year to enjoy focused work with no on-call commitments (…and some skiing)!

Outpatient clinics

Otology / neurotology

The Rotary Hearing Clinic provides a tertiary referral service for adult otology and neurotology cases. There is no service commitment to the more basic

otology cases or procedures that are dealt with well by more generalist surgeons elsewhere in the province. Given that one would expect to undertake the fellowship at the end of one's registrar training, the case load is perfectly appropriate. Approximately half of the week is spent in clinic, which is well equipped with microscopes and otoscopes, with the ability to photo-document each patient and use mounted screens to show the patient what you have seen. A first rate audiology service is provided in the same corridor, with an excellent working relationship between the two specialties. The audiology service offers a full range of hearing and vestibular testing, including for example VEMP testing and cochlear implant programming. Office procedures include ventilation tube insertion, intratympanic injections of medication and repositioning manoeuvres. There is a strong ethos on education, with each case discussed with Dr Westerberg and a two-way discussion over the appropriate management. The case load includes those adults for cochlear implantation assessment (all adult implants for the province are provided through this clinic), the management of chronic otitis media, hearing loss, facial palsy and dizzy patients. Many cases of vestibular schwannoma are seen, the majority of which end up on a watchful wait management, with serial scans being reviewed by the fellow for assessment of further tumour growth.

Rhinology / anterior skull base

The outpatient clinics at St Paul's Sinus Centre were a busy learning environment, occurring usually on two days a week. A clinic day ran from 7.30am to 5pm with an average of 60-70 patients seen between the two of us. A range of rigid endoscopes were available for use with mostly 30° angles, but 0°, 45° and 70° angles were also available. The camera head was connected to at least two monitors and also to the D-scope imaging software used for still and video capture. Tertiary referrals came from around the province and beyond but patients attending the clinic were predominantly follow-ups who had either 'allergic' fungal rhinosinusitis (AFRS) or chronic rhinosinusitis (CRS), although other regular attendees included patients with cystic fibrosis and Wegener's granulomatosis and not forgetting those with previously resected tumours. The main emphasis in the clinic setting was on topical therapies, an example of which was the sinus lavage used for patients with large accumulations of 'allergic' mucin in AFRS where special double curved cannulas placed under endoscopic guidance into surgical sinus cavities were used to flush the adherent mucin out. Topical treatments included Nasacort AQ with gentamicin, baby shampoo, cloxacillin and tobramycin, the latter instilled into the cavities of cystic fibrosis patients. Other clinic procedures included 'office' polypectomies and taking purulent sinus samples with suction traps for microbiological analysis. It was the fellow's job to track all nasal cultures and arrange any necessary oral or topical antimicrobial treatment for the patients.

The operating room

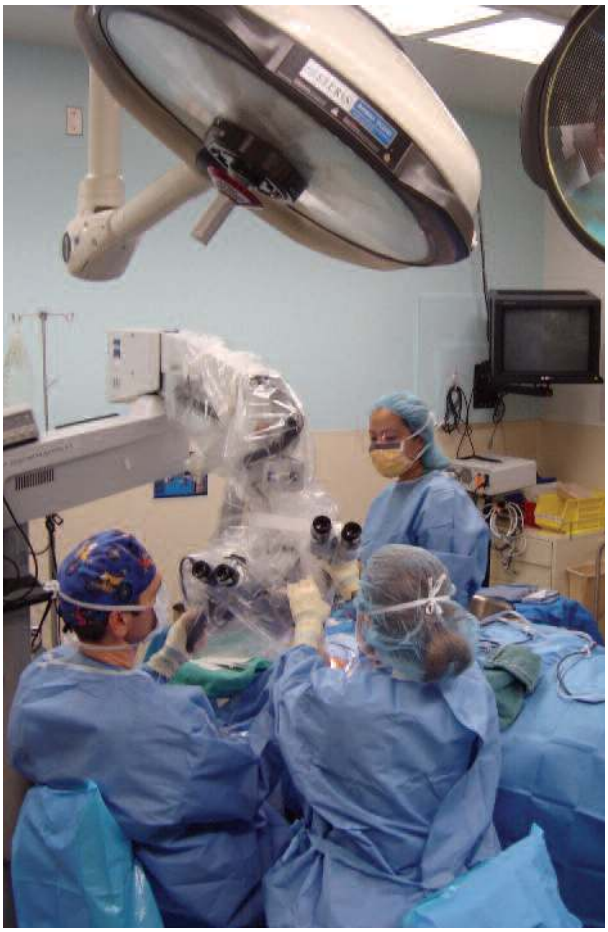
In North America the operating theatre is known as the 'O.R.' and calling it theatre resulted in good-humoured ridicule. In fact, different names for standard instruments and procedures make one feel quite the uninitiated at first, with crocodile forceps called alligators, swabs called sponges, and so on. Unlike most British theatres, there is no separate anaesthetic room, which makes the turn-around of patients rather slower than we might be used to, though the overall efficiency of the list seemed very much like ours here in the UK, so the time was made up somewhere! The dedicated ENT theatres are well equipped with a great team of scrub nurses.

Otology / neurotology

From the otology aspect, the operating microscope has a side-arm and link to a TV monitor, with the ability to both photo-document and procedure video. During the year, I produced a series of training videos for various otologic procedures. There is a KTP laser, facial nerve monitor and the full array of middle ear instruments that would be expected. A skeeter drill and a wide selection of ossicular prostheses were available. A new technique for me was the use of formaldehyde fixed fasciaform tympanoplasty which Dr Westerberg learned on his fellowship. While initially I needed convincing that this was the way forward for difficult subtotal tympanic membrane perforations, I finished the year a convert having seen excellent short and long-term results to what is normally a very challenging situation to get right.

For those cases requiring neurosurgical input, such as the regular vestibular schwannoma cases and other petrous apex and lateral skull base lesions, we operated at the Vancouver General Hospital. This was with the neurosurgeon Dr Ryojo Akagami, with whom there was an excellent working relationship. There was never any question of there not being enough time for the fellow to be operating, and the OR at VGH had the benefit of a dedicated team of neurophysiologists for cranial nerve monitoring during the procedures. A retrosigmoid approach was certainly favoured, though not exclusively.

The fellowship is currently adult based. However, I was able to spend time with Dr Fred Kozak, the paediatric otologist working at the Children's Hospital. He performs all of the paediatric cochlear implants for the province as well as managing chronic otitis media in this age group, and again has a close working relationship with Dr Westerberg. Whilst he has his own fellows, it may be that in the future these two fellowships will combine to provide six months each of adult and paediatric experience.



In summary I logged over 250 ear cases, including:

- 45 tympanoplasty,
- 40 stapedotomy,
- 27 ossiculoplasty,
- 27 cochlear implants,
- 21 combined approach tympanoplasty,
- 19 vestibular schwannoma retrosigmoid approaches,
- Canalplasty, atticotomy, meatoplasty, petrosectomy, BAHA, mastoid obliteration, myringoplasty…

Rhinology / anterior skull base

Within rhinological surgery I was treated to a beautiful array of instruments, especially frontal sinus and suction instruments. The three I favoured the most were the suction Medtreks 45°, suction mushroom punch and the suction curettes. Alongside this I had my first opportunity to experience image guidance software which proved particularly useful in frontal sinusotomies and skull base work. Image and video capture was similarly available on the camera attachments and it was also possible to capture stills of the tri planar view on the image guidance monitor. I amassed a catalogue of videos and stills for training and Dr Javer and I created video chapters for a forthcoming DVD to accompany David Kennedy's latest book.

Operating lists took place at St Paul's but also at False Creek Surgical Centre every Tuesday and the equipment there was a mirror image of the St Paul's set up. Endoscopic hypophysectomies were performed in conjunction with the neurosurgeon Dr Richard Chan at the Royal Columbian Hospital with whom there was an excellent working relationship. Other anterior skull base work was invariably performed at St Paul's and included experience at managing CSF leaks endoscopically using temporalis fascia (no otology fellows required!)

The overriding theme was to attain excellent endoscopic skills including meticulous surgery of the frontal sinuses and a thorough appreciation of the variable anatomy of the frontal recess and anterior skull base. Revision cases often provided challenges and helped focus the mind on treating the sinonasal anatomy delicately in order to maintain good physiological function where possible. The most challenging case performed was an olfactory neuroblastoma invading into the anterior cranial fossa and adherent to the frontal lobes. The resection was all performed endoscopically with repair of the dura and took a total of eight hours, but to date the patient has made an excellent recovery.

In total there were over 400 entries into my logbook which included some of the following:

- 30 tumour resections (endoscopic + / - external approach),
- 15 CSF leak repairs,
- 19 trans-sphenoidal pituitary resections,
- 252 Functional Endoscopic Sinus Surgeries; 67 revision cases,
- 54 Endoscopic septoplasties,
- 11 External approach sinus procedures,
- 22 (pyo)mucocoeles drained,
- six fungal balls removed.

Research

In general, research was well encouraged and supported. The ethics process at the University of British Columbia was certainly less arduous than we are used to in the UK (on most occasions!) and funding could usually be found when required. Not only are the residents keen and able, but there are also willing pre-medical and medical students, allowing at times a more supervisory role to be taken by the fellow. There are regular research / pizza evenings, where projects are discussed with faculty members and the residents to help ensure that appropriate work is being conducted and followed through.

Otology / neurotology

I undertook several projects, including looking at the long-term efficacy of antimicrobial ear drops in conjunction with the microbiology department at VGH, and the use of MRI in the detection of residual cholesteatoma with the radiology department. Given the tertiary nature of the cases seen, there were many opportunities for case reports to prompt systematic reviews. Other projects, such as the use of the 'Wii Fit' in vestibular rehabilitation, were started and will be on-going over subsequent years. There was also time for more fun projects, such as assessing the validity of the coin toss in providing a random result! I was able to take the results of some of this work to the Canadian Society of Otolaryngology meeting in Halifax and several publications are in the preparation. During the year I also attended the Canadian Cochlear Implant Centres Group Meeting in Toronto and the 5th International Congress of the World Federation of Skull Base Societies.

Rhinology / anterior skull base

The high volume of rhinological disease passing through the St Paul's Sinus Centre provided a wealth of opportunities for research as well as for the establishment of databases. I was able to supervise a number of projects and give direction on planning, conduction

We learnt an incredible amount, obtained operative experience beyond which we previously had and were able to develop teaching skills and research projects

and writing up. Studies undertaken included the use of Manuka honey for recalcitrant AFRS and CRS, Pulmicort via the atomiser syringe for AFRS and olfactory dysfunction in AFRS. Results of the various studies were presented at the Rhinology World meeting in Philadelphia and the British Rhinological Society in Cheltenham with a total of eight presentations being given by our group at the former. Further studies such as looking at targeting subgroups of patients with AFRS for appropriate medical therapy will be ongoing and in the hands of successive fellows.

Teaching

From the teaching point of view, there were many opportunities to be involved at both undergraduate and post-graduate level. Subspecialty teaching for the residents was at their Friday afternoon teaching sessions. The residents had very good theoretical knowledge in all areas even if their depth of experience was smaller due to their post-graduate programme being only five years in duration. In the operating theatre we would regularly supervise their operative undertakings, all appropriate to their level of seniority. The 'division of labour' worked harmoniously in this way, such that the fellows are not seen as taking away the experience wanted by the resident trainees. There was a regular presence of medical students in the clinic and opportunities to teach other healthcare professionals (nursing students, audiologists, neurosurgical residents, general practitioners). We both taught on the biennial advanced sinus and temporal bone dissection course run through UBC.

Family / admin

Moving your family to another country is never going to be easy, and needless to say there is a mountain of paperwork required in the months before you leave. Work visas, licensing, medical checks, police checks and operating privileges take time to sort out, so start the process as early as possible. But all this does pale into insignificance once you arrive and settle in. Both our wives are GPs, and it was not possible for them to work locally in that role during the year, as they would have needed to work in under-privileged locations around the province before being allowed to move centrally. However, they both loved their year abroad, and we all made a great group of friends. There is no difficulty getting kids into school, and I (MC) was impressed with the quality of the state school that that my daughter went to, with considerably fewer students per class than the equivalent in the UK. Likewise my daughter (CP) attended a Montessori pre-school and the programme there was extremely good with French and Mandarin thrown in! After three months of being a resident you are entitled to free healthcare (travel insurance can cover you until then). Also, after three months you do need to take the British Columbian driving test, which did irk a little (especially if you failed!) But given that the theory section included information on how to hit a large animal correctly with a vehicle, it wasn't without its amusement.

Extracurricular activities

It would be wrong not to mention that life outside of the hospital in Vancouver is second to none if you are a fan of outdoor pursuits. The North Shore Mountains provide a local playground and a worldclass site for downhill and freeride mountain biking. Whilst full body armour is necessary (not least to protect those surgical hands), the accessibility of such adrenaline-fuelled adventure was addictive. In winter, the same mountains provide floodlit skiing until 10pm, allowing us two fellows to join forces after work and tackle increasingly difficult slopes throughout the season. Not only that,

but our children took their first skiing lessons and soon flourished with their 'pizza-wedge' technique. An hour up the road is Squamish, the self-proclaimed outdoor capital of the country, and another hour on is the world famous Whistler ski resort, equally fun for more mountain biking, hiking, rafting and bear-dodging in the summer. It is no wonder that the next winter Olympics are due here in 2010. Between us we also snow-shoed, ice-skated, sea-kayaked, camped, zip-lined, waterskied, and road-biked. I (MC) was also able to undertake night classes in Native Indian carving, to keep my sculpting interests alive. And I (CP) was able to try my culinary hand at making Pumpkin Pie for Thanksgiving Day.

Conclusions

This was an amazing year for both of us. We learned an incredible amount, obtained operative experience beyond which we previously had and were able to develop teaching skills and research projects. We made some great friendships and it is safe to say that we have both found, in our supervisors, a mentor for life. If your doubts about undertaking a fellowship are practical ones, about money and inconvenience, ignore them. You will never regret a year like we had. ■

Contributors to Trainee Matters

Carl Philpott (Cambridge trainee),
Ellison-Cliffe Travelling Fellowship, Ethicon Foundation Fund award, Lionel Colledge Memorial Fund award, British Rhinological Society Travelling Fellowship, Karl-Storz Travelling Fellowship.

Correspondence
Mr Carl Philpott,
Specialist Registrar in Otorhinolaryngology,
The Ipswich Hospital, ENT Department,
The Ipswich Hospital NHS Trust,
Heath Road, Ipswich, Suffolk, IP4 5PD, UK.
Email: carl.philpott@btinternet.com

Rhinology & Anterior Skull Base fellowship

Matthew Clark (Oxford trainee),
TWJ Foundation grant,
Ethicon Foundation Fund award,
A Charles Holland Foundation scholarship,
Ronald Raven Barbers' award,
Thomas Arno award.

Correspondence
Mr Matthew Clark,
Consultant Otolaryngologist,
Gloucestershire Royal Hospital,
Gloucester, GL1 3NN, UK.
Email: mattanna99@hotmail.com

Otology & Neurotology fellowship