

**Following the Viking Trail**  
**BJJ/ BOA/ EFORT travelling fellowship**  
(Amit Atrey, Abbas Rashid & Owen Diamond)



When we met our first hosts on a warm and sunny Sunday in Odense, Denmark, we explained to them which countries we would be visiting; namely Denmark, Sweden, Finland and finally Turkey (for the EFORT conference). They told us with great delight that we were merely following the path of their Viking ancestors, which started in Scandinavia and ended in Turkey where Viking warriors had been hired as the personal guard by several Byzantine kings. So although this was the first orthopaedic fellowship of its kind, we clearly weren't the first to blaze this trail.

**The aims of the travelling fellowship:**

This was the inaugural BJJ/BOA/EFORT fellowship giving three senior orthopaedic trainees the opportunity to learn how Scandinavian hospital systems were structured to tackle healthcare provision in a changing economic environment.

**The fellows**

Owen Diamond is an ST6 on the Northern Ireland rotation. He has just completed an MD at Queens University, Belfast and has an interest in hip and knee surgery. Abbas Rashid is an ST7 on the North West Thames rotation. He has completed the FRCS and has a year left on the rotation before embarking on an upper limb fellowship. Amit Atrey completed his training on the South East Thames Rotation. He has already undertaken a lower limb arthroplasty fellowship in Toronto and an AO Trauma fellowship in Hamburg. He is currently the DePuy lower limb arthroplasty fellow in Warwick.

## **27<sup>th</sup> - 29<sup>th</sup> of May - Odense university hospital, Denmark**

Denmark has a population of 5.4 million and is divided into 5 regions (North, Central, Southern, Sealand and Capital). There is roughly one doctor per 350 people making it one of the most well served countries in region whilst being EWTD compliant. Higher levels of taxation have created a uniformity of wealth and mean that healthcare can be provided free, although there are a few exceptions such as physiotherapy, pharmacy and podiatry. The time from GP referral to orthopaedic review is usually two weeks followed by a 3 month wait for an operation if necessary. Less than 1% of the hospital beds are private, eliminating competition amongst surgeons and allowing them to focus their efforts on improving processes in their state funded working environment.

We arrived in Copenhagen and took an hour-long train to Odense. Odense is the main city in the Southern region with a population of around 130,000, and is the home of Hans Christian Anderson. Although it is relatively small, centralization of specialist services means that Odense University Hospital serves the entire region with a population of 1.3million. The facility was huge, extremely very well organized and the presence of the university meant that there were excellent research facilities including basic science laboratories and even a farm housing animals used in research.

On Monday morning we were greeted by our host Professor RÖck who had given up clinical practice 10 years previously to take up an exclusive management role running the department. Our first morning was spent listening to talks from the various subspecialist leads on topics such as the Danish Fracture Database, Ankle Arthroplasty, Sports Surgery and a unique presentation on Accident Analysis from Dr Jens Lauritsen, which was set-up to highlight attendances to hospital that were related to violence which were then fed back to local police so that measures could be instituted to reduce violent crime. It was quickly apparent that their strength came from their commitment to data capture, which allowed them to produce good quality research. Prof. Søren Overgaard, head of research and a paediatric orthopaedic surgeon, gave us a tour of the extensive research facilities (Figure 1) after which the entire orthopaedic department was assembled to listen to our presentations giving us a chance to rehearse in front of captive audience prior to presenting the same work at EFORT.

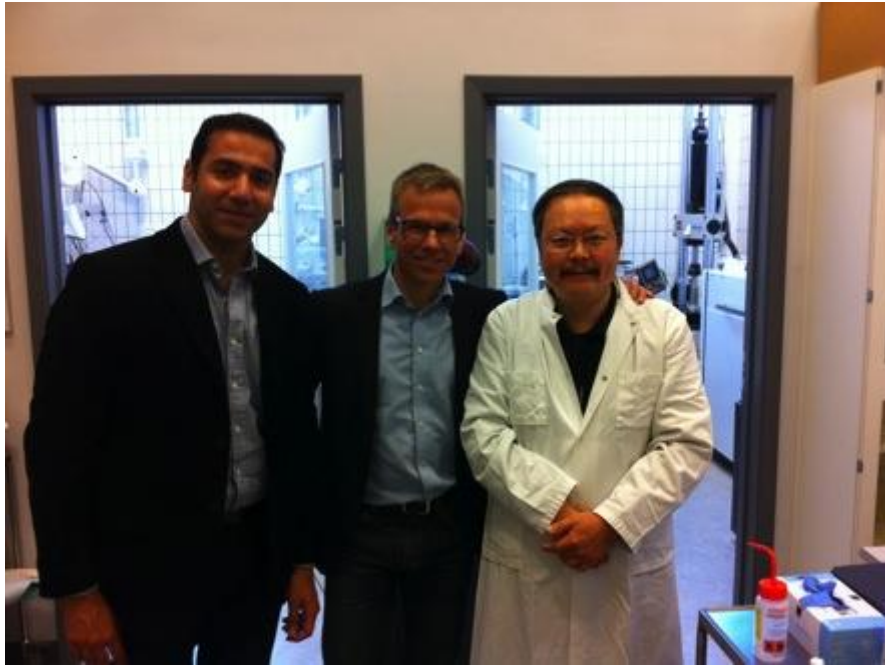


Figure 1 . Mr Abbas Rashid, Prof. Søren Overgaard and Dr M. Ding on a tour of the extensive research facilities at Odense.

On Monday night we were treated to a fantastic 5 course in the oldest restaurant in Odense which dated back to 1663. This dinner was attended by Prof Rock along with the leads in paediatric surgery, foot & ankle surgery and hand surgery (Figure 2).



On Tuesday we heard about centralization of Cerebral Palsy services in southern

Denmark. Although patients have to travel further, they were receiving specialist care in a centre of excellence, akin to the “Hub and Spoke” system that is being introduced for trauma, paediatrics and tumour surgery in the UK. Dr Niels Wisberg Pederson explained how they have joined the hospitals in the other 4 regions of Denmark to create a CP database in order to improve surveillance of late hip dislocations thus reducing the need for salvage surgery. We also heard from Hans Tromborg about re-implantation, Xiapex (collagenase) injections for Dupuytren's, Brachial plexus injuries and finally complex distal radial fractures in the young. He gave his results of a study in which young highenergy distal radial fractures were treated with arthroscopically assisted ORIF. This was an eye-opener for all of us as he revealed the prevalence of concomitant wrist injuries in this group approached 100%. We spent the remainder of the day in the OR, where Amit and Owen were able to watch a PAO through the iliofemoral approach and Abbas was able to watch an arthroscopic subscapularis release in a 4 year old with obstetric brachial palsy. What became apparent was that as paediatric services had been centralized, patients were able to benefit from the expertise that surgeons had gained in the surgical management of such complex conditions. This was reflected by the fact that such procedures were relatively stress free and that surgeons were able to perform multiple complex procedures in a day.

### **Wednesday 30<sup>th</sup>, Copenhagen Denmark**

We returned by train back to Copenhagen where they have the highest number of Michelin starred restaurants in the world. We were greeted by Dr Kim Holck, who treated us to a fine Danish meal and wine which did not disappoint (Figure 3). We met Dr Holck the following day outside Hvidovre University Hospital who directed our attention to the Union Jack which had been raised outside the building in honour of our visit. The hospital which opened its doors in 1973 was designed with a modular concept in mind allowing the structure to accommodate inevitable changes. The entire 1st floor was left empty for services - wires/ tubes/ cables and they can easily access & change according to where they're needed.



Figure 3: At dinner with Dr Kim Holck

Dr Holck, who is an educationalist and a trauma surgeon, proudly displayed his “driving license board” for trainee surgeons (Figure 4). He explained that photos of the residents were matched with lists of the necessary operations that they must do. When the trainee is unable to perform a procedure without supervision a red magnet remains in the relevant box. As they are to be able to perform the op solo, they receive a blue magnet and when they are able to supervise others in this procedure they receive a white magnet. At the trauma meeting in the morning trainee surgeons are allocated to cases to which they are still trying to achieve competence.

We attended a talk on "rapid recovery" by Dr Henrik Husted the head of the arthroplasty unit. Given Hvidovre's success in discharging over 90% of their hip and knee arthroplasties with 2 days of surgery, they were also other surgeons from the UK in attendance who were visited by surgeons from all over the world. This was followed by a lengthy discussion and unit tour (Figure 5) with Dr Henrik Palm (of Palm Index fame – a predictor of failure of fracture fixation) an extensively published trauma surgeon who's main interest is in hip fracture surgery. There are 600 hip fractures dealt with in Hvidovre hospital every year although Dr palm explained that numbers are going down per capita despite an ageing population, due in part to a mandatory nursing led health review in all individuals over the age of 70 years.



Figure 4: Dr Kim Holch explaining the 'Driving License' board to Mr Rashid.



Figure 5: Dr Henrik Palm, Mr Abbas Rashid, Mr Owen Diamond and Dr Kim Holck

### **30<sup>th</sup> & 31<sup>st</sup> of May, Lund and Malmo, Sweden.**

A short train ride across the water and we were in Sweden. Between Lund & Malmo there are 100 surgeons in the orthopaedic department. We spent first day touring the grounds of the world famous Lund University Hospital, after which we heard talks on bone and soft tissue tumour management as well as surgery for rheumatoid arthritis which is prevalent enough to warrant two full time surgeons. After work we were invited to the retirement party of Professor Sažen, the head of the entire orthopaedic unit between both hospitals. He was clearly a very respected, loved and admired colleague judging by the turnout and the speeches. At the end of the meal, we asked the Professor if he could give advice from one surgeon at the end of his career to one at the start of his. With the issues of metal on metal ringing in his ear, he quoted this to me - "If you have a method that works successfully, remember that by trying something new, it would difficult to get better results, but associated with a high risk of failure".

The second day was spent in Malmo in theatre with the Trauma surgeons where we were invited to assist in theatre with various cases including a complex proximal humeral fracture, a periprosthetic fracture and a femoral neck fixation. The surgeons used a biplanar x-ray machine, which cut surgical time down by half therefore improving productivity.

### **3rd June - Helsinki, Finland**

We then flew on to Helsinki where we were collected from the airport by Dr Jerker Sanderlin a knee surgeon from the revered private Orton clinic. He entertained us for the evening with some of the highlights of the city ranging from the abstract monument to famous Finnish composer Jean Sibelius (Figure 6) to the home of Formula 1 World champion Kimi Raikonen. Unlike the rest of Scandinavia, Finland has a healthcare system similar that that in the UK where surgeons can opt to work in the private or public sector. Furthermore there are public tenders for surgery and the GPs appear to be the gatekeepers.



Figure 6. Mr Owen Diamond, Dr. Jerker Sanderlin and Mr Abbas Rashid at the Sibelius monument in Helsinki.

The Orton Clinic, which is private hospital with around 14 surgeons, was founded in 1941 to deal with the injured soldiers from the 2 wars Finland fought between 1938 and 1943. Since then it has evolved into a large orthopaedic hospital. After our initial welcome we had a talk from Juha-Pekka Halmeenmäki (CEO of the hospital). He explained that GPs acting as gatekeepers would purchase surgery from the public sector, which was cheaper meaning that elective surgery was accounting for less of the clinics' overall revenue. Almost half of all procedures were performed on private patients from Russia where health care was deemed suboptimal. As a consequence one third of the clinics revenue was from elective surgery with smaller proportions coming from its Ortho rehab unit and its vocational college for those special needs individuals who needed to be trained to reintegrate back into society and the workplace. After attending their daily radiology meeting, we toured the unit, sat through an outpatient consultation and attended theatres.





Figure 7. Tour of the unit in Orton Clinic

We were then treated to a selection of lectures in the afternoon including spirited talks on Hip Arthroscopy , Thromboprophylaxis, ACL reconstruction, Ankle Arthroplasty, Computer Assisted Spinal Surgery and Pelvic Surgery. After a long day in theatres and lectures we enjoyed a wonderful meal with Dr Jerker Sanderlin (Figure 8).



Figure 8. Enjoying time after lectures with Dr Jerker Sanderlin

#### **4<sup>th</sup> of June 2013, Istanbul; EFORT conference**

Our tour concluded with a trip to the 14<sup>th</sup> EFORT conference in Istanbul. We left the calm of Scandinavia to arrive in Istanbul where the airport was run amuck with orthopaedic surgeons from all over the world. As always the conference was a huge success despite the political situation in the central Taksim region. After presenting our own work in the free paper sessions we were able to enjoy expert instructional talks from the likes of Professor Waddell from Canada and Mr Simon Lambert from Stanmore.

We also go the opportunity to share a glass of wine with our hosts Professor Philippe Neyret (Lyon) and Mr Mark Patterson (London UK) who was our linkman from the BJJ.

We would like to thank these gentlemen for and their respective organisations for this amazing opportunity. We learned a lot about health management in other countries and gleaned many new clinical skills, ideas for research and hopefully created some networks for future projects and collaboration. The exchange of ideas and friends we made will be with us for a long time.