

## **The Mark Paterson Travelling Fellowship 2019 (Italy, Portugal and Spain)**

Mazin Ibrahim, Aleksi Reito, Olga Pidgaiska

### **The fellowship and hosts**

This year, Mark Paterson travelling fellowship was awarded to three Orthopaedic Surgeons from three different European countries; the United Kingdom (UK), Finland and Ukraine. This Fellowship lasted for two weeks, from the 1<sup>st</sup> to the 15<sup>th</sup> of September 2019. The fellowship started in Italy in the department of Surgical Oncological and Gastroenterologic Science, University of Padova. The host was Professor Pietro Ruggieri. The second stop was in Lisbon at the CUF Descobertas hospital in Portugal and the host was Professor Jorge Mineiro. The last stop was in Spain at the La Paz hospital in Madrid and the host was Professor Enrique Gil-Garay.

### **The Fellows**

Mazin Ibrahim from the UK graduated from medical school of Baghdad University and completed his Postgraduate Orthopaedic training at the University College Hospital in London and currently doing a post CCT (Certificate of completion of training) arthroplasty fellowship in London Health Sciences centre in London Ontario in Canada. He completed two masters' degrees one of which was from Edge Hill University in collaboration with Writington hospital (Sir John Charnley institution) and the other one was from Edinburgh University. His Trauma and Orthopaedics subspecialty interest is adult lower limb arthroplasty. He has interest in enhanced recovery program and periprosthetic infection as a main focus of his research.

Alexi Reito from Finland received his MD degree from Tampere University. He is now doing final part of his orthopaedic and traumatology residency training at the Tampere University Hospital. Aleksu completed his PhD thesis in the Coxa Hospital for Joint Replacement. After post-doctoral research, he was appointed as adjunct professor in experimental orthopaedics by Tampere University. His main research interests are hip arthroplasty, general trauma and metascience.

Olga Pidgaiska, orthopaedic surgeon from Sytenko Institute of Spine and Joint Pathology, Kharkiv, Ukraine, is a chief of arthroplasty department. Olga completed PhD thesis on studying of stress shielding after cementless total hip replacement. Now she actively works on research about the primary stages of bone healing – fibrin blood clot formation. Another scientific part of her work is studying of inflammation synovial fluid markers at periprosthetic joint infections.

### **The Italian Experience**

We arrived to Padova in Italy on Sunday the 1<sup>st</sup> of September landed in Venice Marco Polo airport (VCE).

Monday the 2<sup>nd</sup> of September was the first day in Italy. We attended the morning meeting at the department of Surgical Oncological and Gastroenterologic Science in Padova. Professor P. Ruggieri and his team welcomed us in their department in that meeting. In that meeting they discussed the emergency cases admitted to the hospital from Friday and the treatment were given as well as all the elective cases that were on the operating room (OR) schedule for Monday. We joined the team in OR and we observed different cases, however the main case for the day was revising a non united proximal humerus fracture following open reduction and internal fixation (ORIF) with a plate to a reverse shoulder arthroplasty (Figure 2). The other interesting case was the fibula resection for giant cell tumour.

In the afternoon on that day, we attended outpatient clinic with Professor Ruggieri. This was very educational and it was attended by a large group of medical students, residents, fellows and attending surgeons from the same department. Together they discussed the cases then the plan was discussed with the patient. This kind of consultations is part of the regular educational program for residents and fellows. We saw interesting tumour cases both benign and malignant with some rare cases that were treated in this institution.

On that day, Dr. Dietmar Dammerer from Innsbruck/Austria joined us. He was awarded the European Musculoskeletal Oncology Society fellowship. (Figure 3)

This day was concluded with a nice dinner in one of the well-known restaurants in the old town and we were joined by the Austrian fellow, 2 representatives from industry, Professor Ruggeri and 3 other consultants from the department.

On Tuesday the 3<sup>rd</sup> of September, we started the day with the morning meeting at 7:10 am then we attended OR to observe a complex case where a multidisciplinary team was available to perform a hindquarter resection for recurrent LipoSarcoma. It was interesting to see the way they managed these complex orthopaedic resident and Orthopaedic fellow, Plastic surgeon, Urologist, Gynaecologist, General surgeon and a Vascular surgeon (Figure 4). The operation finished at around 3 pm.

Late afternoon and early evening of that day was spent in outpatient clinic with Professor Ruggieri to see more cases and there was a combination of tumour cases, back problems and postoperative cases including total knee replacement cases. We finished late on that day and we went after that for excellent dinner hosted by the professor and his team where we experienced the Italian culture and food (figure 5).

On Wednesday the 4<sup>th</sup> of September, we had a clinical symposium organised by Professor Ruggieri and was attended by the head of surgical divisions and the whole department together with all residents, fellows and consultants. There were many presentations from the Orthopaedic department, plastic department and from the research department. They presented their latest research and clinical experience. The research department presented their basic science research on the effect of knee osteoarthritis on knee fat pad. Another interesting

topic was about Hyaluronic acid and its implication in myofascial pain and chondrosarcoma tumour invasiveness and its future directions in the management of this aggressive malignant tumour. At the end, the professor concluded the meeting by thanking all the attendees and thanked the Mark Patterson fellows. We took a final photo in that institution with the other fellows and some of the consultants there (Figure 6). This was followed by a visit organised by the Italian team to visit the famous Chapel (Capella Degli Scrovegni) (Figure 7) and we were guided by one of the residents.

On the last day we managed also to visit Venice in the evening of that day as there are regular trains to Venice from Padova and it took 25 minutes only. The weather was great during our stay in Italy and we really enjoyed our experience and we learnt a lot about tumours and their management. The next day we travelled to Lisbon to arrive late in the afternoon to be ready for the first day in CUF hospital on the 6<sup>th</sup> of September.

### **The Portuguese Experience**

On the 6<sup>th</sup> of September, we used electric bicycles to go to CUF Descobertas hospital in Lisbon (Figure 8). It is a private institution but has the same setting like the public sector and the Orthopaedic team seems very influential there with around 40 surgeons covering all main subspecialties. The surgeons are very subspecialised in this institution and usually work as a group in a similar way like the public sector. In the morning, we were welcomed by Professor Jorge Mineiro who is the head of the department. He introduced us to the department and gave us an overview on the hospital and what they do in general. We had a very organised schedule to attend different outpatient clinics and OR based on our interest. Each one of us had equal time in OR and in out patient clinic. It was really interesting to see the variety and volume of cases they do. Dr Pedro Dantas had a list in the first day to perform few hip arthroplasty cases while Dr Mario and Dr Monica had a combined list to perform different knee cases including adolescent knee arthroscopy for meniscal repair and cyst excision. There was a unicompartmental knee replacement using the Oxford implant.

The evening of the 6<sup>th</sup> of September, Professor Mineiro and his team invited us for a dinner in a very nice restaurant owned by a well-known Portuguese chef where we tasted the famous codfish dishes (Bacalau) and we spent a great time with the team talking through different medical and cultural topics (Figure 9).

We had the weekend free on the 7<sup>th</sup> and 8<sup>th</sup> and we invested this time to explore Lisbon, we visited the old town where we had fantastic meals mainly fish dishes and listened to Fado, which is the national local music. We visited the city of Sintra and its beautiful palaces like Pena castle with its amazing picturesque architecture (Figure 10)

On the 9<sup>th</sup> of September, we started early in the morning with a full day clinic for Mazin and Olga and full day OR for Aleksi. The outpatient clinic experience was great as we spent the day with knee, hip, ankle surgeons to see a variety of joint pathologies reviewed by Dr R. Varatojo, Dr. P. Dantas, Dr. R. Telles de Freitas. It was great to see the wide range of pathologies and to know more about the

Portuguese population. We were totally involved with patient's consultation; doctors translated to us the main aspects of patient's history and we had the chance to discuss treatment options. We discussed meniscus tears and the way to repair them using different modalities and different options for suturing it and got some tips for proper repair. Doctors made remarks on papers for better explanation (Figure 11.). It was useful information because on the second day during the arthroscopic surgery we observed all well-known techniques of meniscus repair in one patient. Another arthroscopic case was meniscus posterior root repair combined with ACL reconstruction. We scrubbed in surgeries; we discussed many aspects and exchanged our experience, such kind of informal communication expand our knowledge our experience. (Figure 12)

In the evening, there was a scientific meeting attended by all trauma and orthopaedic doctors in the department. It was scientific symposium, where each of us gave a presentation about education, work aspects and main scientific interests, doctors from CUF hospital presented their cases of knee pathology treatment in children and also complex revision cases were discussed. (Figure 13&14).

### **Final Destination**

Our final stop was the La Paz Hospital in Madrid (Figure 15). We left Lisbon on Wednesday morning and arrived in Madrid the same afternoon. Madrid visit was hosted by Professor Enrique Gil-Garay who was kind to invite us to a dinner the same evening we arrived. We had dinner in a nice local restaurant with Dr Enrique Gil-Garay and his colleagues Professor Enrique Gomez-Barrena and Dr Eduardo Garcia-Rey.

On Thursday morning we arrived to the hospital. Hospital LaPaz is large; community based public hospital in the city of Madrid. Covering all major orthopaedic subspecialties and staffs around 45 orthopaedic surgeons and 20 residents in orthopaedic surgery. Our day started at 8 am by attending morning briefing showing cases admitted to the hospital and scheduled for emergency surgery.

After the morning meeting all fellows attended OR. One theatre is always dedicated to trauma cases which on that day included several proximal femoral fractures surgeries. Aleksi joined one of the trauma surgeons in OR and had interesting discussion about the principles of hip fracture management in the La Paz Hospital. Olga and Mazin attended a big revision hip arthroplasty case.

In the afternoon we had the privilege to visit the IdiPAZ research institute (Figure 16). This visit was guided by Gema Vallés and Laura Saldaña. IdiPAZ is located in the hospital campus area and is fully funded by the government. This institute has close connection with the hospital. This enables a basic research aiming to find relevant clinical solutions and involvement. IdiPAZ covers many major basic research fields such as molecular biology, cell biology, experimental surgery and tissue engineering. They have also very up-to-date training and

educational facilities for different surgical specialties. We look forward for ground-breaking research findings from IdiPAZ research institute!

Friday 13<sup>th</sup> was the second day in Madrid and the final day at clinics during this fellowship. Day began again with the morning briefing. In addition to cases admitted to hospital presented by the resident on-call, Dr Gomez-Barrena gave interesting talk on bone marrow-derived mesenchymal stromal cells in the treatment of fracture non-unions. It was interesting to see how a whole network of product processing labs have been set up for the purposes of their study. In this meeting, fellows presented on their training, clinical experience, and research interest.

After morning meeting, we attended OR again to observe and assist in different surgeries. We assisted and observed reverse shoulder arthroplasty case and 2 primary knee replacement cases. We had interesting discussion on postoperative care for these patients during surgery.

Our visit to OR was quicker this time because around mid-day our host Dr Garcia-Rey gave us tour in the medical school located next to the hospital. We had an interesting walk around the campus while Garcia-Rey gave very specific talk about local medical training.

In the afternoon the official part of our fellowship was coming to an end. We finished the day in the hospital with interesting discussion with Professor Gil-Garay and Dr Garcia-Rey about complex acetabular revisions and total hip arthroplasty surgery in short statured patients. We also had the privilege to hear Dr Gil Garay's experiences in working in the developing countries and helping local surgeons to perform different orthopaedic and orthoplastic surgeries.

On Friday evening our host Dr Garcia-Rey organized an interesting city tour. Very enthusiastic tour guide gave us almost 2-hour walk in the city while talking about interesting facts of local history. After taking group photo in the famous Kilometre Zero stone slab (Figure 17) we ended our day with our host in a local restaurant that served the very best tapas in the town!

Last day Saturday was left free for the fellows to enjoy Madrid before the departure on Sunday morning.

To conclude, this was excellent opportunity for the fellows to experience three different health systems, to meet new people from different countries and to exchange medical experience. The fellows would like to thank all the hosts for their generosity and excellent care and would like to take this opportunity to thank the EFORT and BJJ for this amazing opportunity for the fellows. A big Thank you to Sanni Hiltunen for all well organized trip!!! She was able to give us support and assistance during the whole fellowship! We highly recommend this great fellowship as it added on our cultural and clinical experience.

**Figure 1:** The three fellows are in front of the Orthopaedic department in Padova, Italy. From Left to write: Aleksi Reito from Finland, Mazin Ibrahim from the UK and Olga Pidgaiska from Ukraine.



Figure 2: A clinical photograph for the excised humeral head before cementing a reverse modality shoulder replacement.

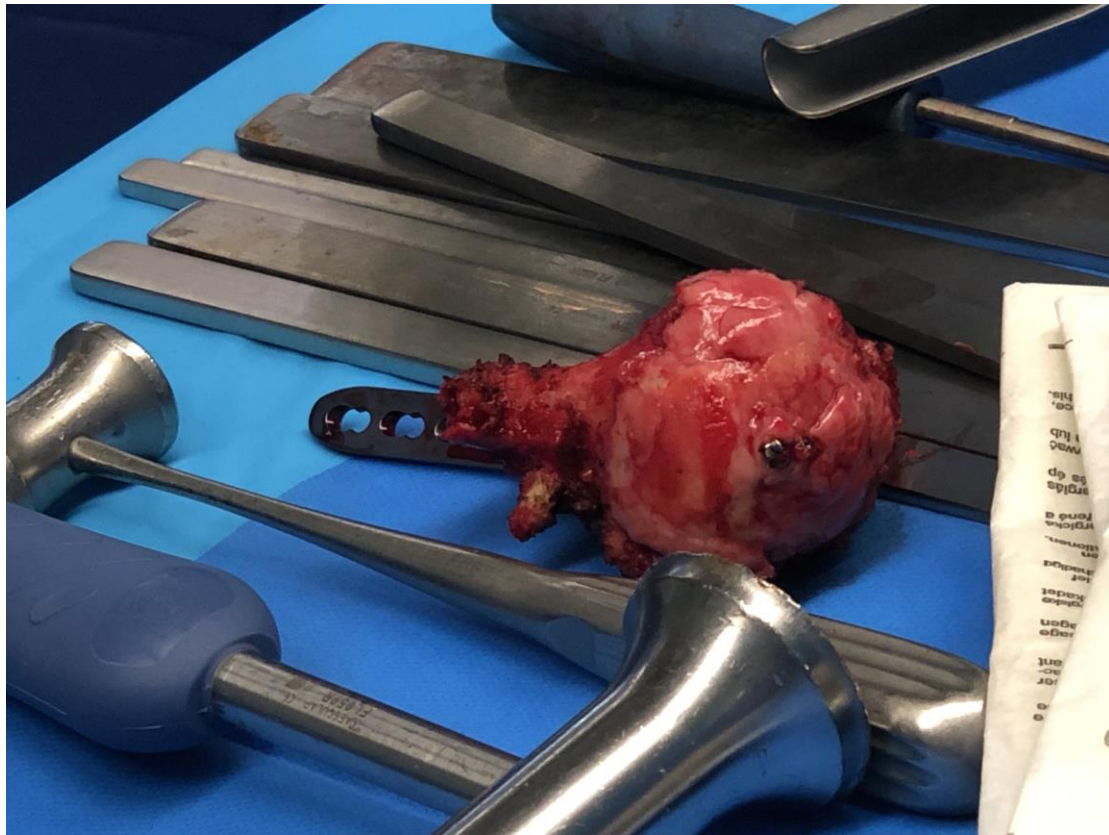




Figure 3: Photo for us in the outpatient clinic from right to left Dr. Dietmar Dammerer from Austria, Aleksi Reito, Eveate (Mexican fellow), Olga Pidgaiska and Mazin Ibrahim.





Figure 4: The Chondrosarcoma case in OR with a large multidisciplinary team.



Figure 5: 2<sup>nd</sup> day dinner with Professor Ruggieri and his team



Figure 6: A photo in the Aula where we had the clinical conference with other fellows and 2 residents including Alberto our city tour guide who is a third year resident.





Figure 7: The Chapel from inside



Figure 8: The three fellows in front of the main reception of the CUF hospital





Figure 9: Dinner with the Portuguese team on the 6<sup>th</sup> of September 2019-09-15





Figure 10: Castle Da Pena in Sintra



Figure 11. Remarks on paper on meniscus repair.

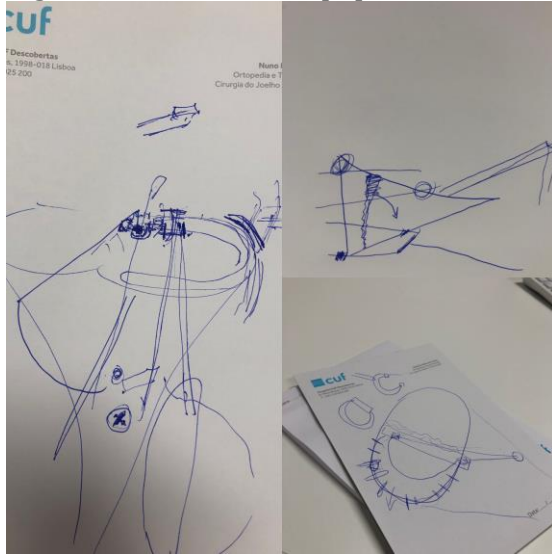


Figure 12. A photo from CUF hospital OR



Figure 13. The three fellows Presented at the scientific symposium at CUF Hospital on the 9<sup>th</sup> of September 2019



Figure 14. A photo at scientific symposium meeting at CUF Hospital





Figure 15: La Paz Hospital





Figure 16: A group photo in front of the IdiPAZ research centre



Figure 17: A group photo in Madrid city centre in front of the famous zero Kilometre sign

