ESSKA-AGA Joint Preservation Travelling Fellowship 2018

Germany – Austria – Italy – Germany
25 February – 9 March 2018

Fellows: ESSKA: Michele Saporito (Italy)
AGA: Matthias Koch (Germany)

After a long and anxious wait, I was excited finally to start my Joint Preservation Travelling Fellowship, even in Germany’s coldest week! I was delighted to be selected as an ESSKA Fellow for its first edition, and I was expecting to take back home knowledge, new ideas and new friendships. It was a pleasure to meet Dr Matthias Koch, AGA Fellow, and to share with him this experience, first in his hometown Germany and then in mine - Italy.

Munich, Germany
Host: Prof. Philipp Niemeyer

The first day is always the most important: we had an informal meeting the evening before the start of our fellowship with Prof. Philipp Niemeyer - introducing ourselves, and talking about our experiences and differences in our countries. The next day was finally time to start surgery. Prof. Niemeyer hosted us in the Orthopädische Chirurgie München Clinic, where we had the possibility to follow his patients and surgery.
We assisted while he performed very interesting procedures, like hydrogel based chondrocyte transplantation on a focal chondral defect on talus previously treated with microfractures, arthroscopic knee cartilage harvesting following ACI, MPFL reconstruction associated with trochleoplasty, ACL reconstruction with ST. All these surgeries were combined with interesting discussions about surgical indications and about surgical technique, with Prof. Niemeyer and Dr Alfed Hochrein.

In the evening, we shared our life interests and experiences around the world. The morning after, we were back early in the surgery room were we could take part in a knee ACI combined with high tibial osteotomy (HTO), and other surgeries already mentioned - ideal for our joint preservation fellowship program. We then continued our travels by train to Regensburg!

**Regensburg, Germany**

**Host: Prof. Peter Angele**

Our first stop was the Medical Biotechnology Laboratories of the University of Regensburg, where we had a tour of the labs dedicated to cartilage. Afterwards we met the research team, as directed by Prof. Peter Angele. They presented their recent research on cartilage metabolism and regeneration on in vitro and animal models. We also discussed our research experiences, and the future for cartilage regenerative medicine. In the evening, we finally met with Prof. Angele and Prof. Johannes Zellner, together with Dr Girish Pattappa and Prof. Denitsa Docheva from the Medical Biotechnology Laboratories.
We moved from the labs to the surgery room in the Sporthopaedicum Clinic of Regensburg, and spent a whole day with Prof. Angele, for different knee procedures.
Before each surgery, there was a case presentation, where we could discuss indications, surgical techniques and aftercare. In the OR we assisted to MPFL reconstructions, ACL primary and revision reconstructions, knee matrix-associated autologous chondrocyte transplantation (MACT), arthroscopic partial meniscectomy and meniscal repairs and patellofemoral Arthroplasty. These procedures were a great warm-up for the AGA course on lower limb arthroscopic and mini-open procedures.

Graz, Austria
Host: Prof. Peter Angele

On my arrival in Graz, I was really excited to take part in the three days’ practical course on cadavers in the Anatomy Institute of the University of Graz, organised by the AGA (AGA-Akademie - Untere Extremität Arthroskopie / Mini open).
The first day was dedicated to hip pathologies. After anatomy lessons about arthroscopic and open procedures on the hip, we had a practical session on models and cadavers. We could perform arthroscopic hip portal identification, capsular release and arthroscopic explorations of the peripheral and central hip compartments, open approaches to the hip joint, proximal femur osteotomies and multidimensional axis corrections. Afterwards, in the evening, we met with other participants and faculty members for dinner, and shared our work experiences in our respective countries.

The second day of the course was dedicated to cartilage, ligaments and menisci pathology of the knee. The practical session was very interesting for our joint preservation fellowship, because we could see a MPFL reconstruction, MACT and HTO on cadaver by Prof. Angele. Afterwards, there was a practical session on arthroscopic and mini-open procedures: MPFL, ACL, PCL, PLC reconstructions, high tibial osteotomies, distal femur osteotomies, microfractures, OATS, MACT, trochleoplasty.

On the final day we concluded the knee chapter with a very interesting lesson on osteotomies around the knee, and then could practice with high tibial osteotomies, distal femur osteotomies under the guidance of our tutors. The course ended after the ankle session, with lessons and practice on main arthroscopic procedures. We said goodbye to Austria, and to our new friends, and prepared for Italy!

Milan, Italy  
Host: Prof. Pietro Randelli

We received a great welcome in Milan, from Prof. Randelli and his Assistants and Residents. We arrived at the Istituto Ortopedico G.Pini, and immediately commenced our fellowship with a scientific session. Here, we had the opportunity to present our recent research in the field of joint preservation and discuss about new projects, just before a classic Italian pizza dinner - all together.

The second day, it was time for the OR in the CTO Hospital where we watched Prof. Randelli and Dr Luceri perform knee arthroscopic partial meniscectomy and meniscal sutures, ACL reconstruction, total knee arthroplasty, and shoulder revision arthroplasty. We had interesting discussion on cases and important surgical tricks-and-tips. Later, we had small tour of Milan city with Dr Susini, visiting the main points of attraction and discovering the history and secrets of the city.

We spent the last day in Milan back in the Istituto Ortopedico G.Pini in the surgery rooms, taking part in an arthroscopic rotator cuff repair with Dr Arrigoni - who showed us tricks of the repair technique. Later we went back to the OR with Prof. Randelli, where we discussed in detail a case of revision of a UKA with a revision TKA, from the planning to the surgical procedure. Afterwards, it was time for our next stop in Bologna!
Bologna, Italy
Host: Prof. Stefano Zaffagnini

Dr Giulio Marcheggiani Muccioli and Dr Alberto Grassi welcomed us in Bologna with a dinner. Here, we introduced ourselves and started our joint preservation discussions, especially on the knee joint.
The next day, we had a tour in the *Istituto Ortopedico Rizzoli*, learning about Italian orthopaedic history. We were able to visit the ancient library and the impressive study-museum of Prof. Putti, with medical masterpiece books and ancient medical instruments and braces. Thereafter, we moved to the OR with Dr Marcheggiani, who showed us their interesting technique of meniscal allograft transplantation and ACL reconstruction, using the “over the top” technique. We were also able to discuss about our own research experience in the joint preservation field, and knee arthroscopic techniques and clinical cases.

**Reutlingen, Germany**  
**Host: Dr Christoph Gaissmaier**

The last stop of the fellowship was in TETEC® headquarters, where Dr Gaissmaier and his colleagues showed us how the industrial chondrocytes cell culture works, from the harvesting and sending of the tissue, to the culture and final products: three-dimensional collagen matrix for cartilage regeneration after micro-fracturing and the hydrogel based chondrocyte transplantation. It was very interesting to see what was behind the cartilage repair techniques, that we’d seen in the German and Italian orthopaedic centres. To conclude, we will need to focus on regenerative medicine and its future research.