



# EFORT FOUNDATION

## Report Visiting Fellowships

Name: Richard James Murphy

Country of residence: UK

Country of visiting fellowship: Switzerland

Name of the host: Prof. Dr. med. Matthias Zumstein

Dates of visiting fellowship: 1<sup>st</sup> March 2019 to 31<sup>st</sup> March 2020

1. Description of clinical activities during the fellowship
2. Description of scientific activities during the fellowship
3. Description of social aspects of the fellowship
4. Technical skills that I learnt during the fellowship
5. Theoretical knowledge that I learnt during the fellowship
6. New knowledge and skills that I can implement in my own practice
7. Overall reflective statement over how the fellowship contributed to my professional development
8. What are your future plans? UK Shoulder and Elbow Fellowship, then Consultant post



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## **Report to EFORT:**

### *Background*

In early 2019 I came to the end of my UK higher surgical training in Trauma and Orthopaedics. With Certificate of Completion of Training in hand I set off to Switzerland, keen to continue learning and developing my skills and knowledge in shoulder and elbow surgery. My destination was the world famous Inselspital in Bern, a historical hotbed of orthopaedic excellence, research and innovation. The Inselspital boasts a rich orthopaedic pedigree having been home at one time or another to greats such as Müller, Ganz, Gerber, Hertel and now Prof. Matthias Zumstein.

Head of the shoulder and elbow team at the Inselspital over the last decade, Prof. Zumstein has been a leading researcher and innovator in the world of shoulder and elbow surgery achieving a great deal over the last decade including winning two Neer awards! The shoulder and elbow team are a close-knit group of surgeons who work together efficiently and coherently, complementing each other well and covering a wide array of pathology and surgical techniques.

On arrival, I was made to feel welcome by all members of the department from the administrative staff to all of the surgical teams and theatre staff. The Swiss are blessed with phenomenal language capabilities with experience drawn from their borders with Germany, France, Italy, Liechtenstein and Austria, not to mention the many variations of Swiss German spoken across the country. As a result, virtually all of the staff members spoke perfect English (as well as French, German, Swiss German and perhaps Italian!). Initially, as a Brit with schoolboy French and virtually no German I found this quite intimidating although everyone was extremely happy to speak English and help with communication.

I travelled to Bern with my wife and two young daughters (2 years old and 2 months old). This posed quite the challenge from a family perspective, but once again Prof. Zumstein and his team were very understanding and I had a great deal of flexibility within my week to ensure I could be present for the most valuable learning opportunities, make time for research and also be there to support my young family. Prof. Zumstein and his wonderful family (Lena, Kyra and Naya) welcomed us to their home early in the fellowship for a lovely brunch where we enjoyed the best of Swiss hospitality with wonderful food and beautiful views.

As part of my stay in Switzerland I advanced my German to a C1 level and acquired recognition of my UK qualifications and a licence to practice in Canton Bern and Switzerland. This allowed me to operate independently during my fellowship, which significantly enhanced my experience as I could then apply the things I had learned and gather direct operative experience as well as theoretical and research experience.

### *Clinical Activities*

The Orthopaedic Department is extremely well run, with efficient day to day programs and an array of major trauma and tertiary cases to be managed. The Inselspital is one of only a few large subspecialised centres in Switzerland managing complex shoulder and elbow pathology; as a consequence, the team see a huge preponderance of rare and complex pathology. The outpatient clinics often felt like the small print chapters from my orthopaedic



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textbooks, with so many unusual cases to manage, requiring a broad and often inventive approach to surgical care. I learned such a huge amount from their approach to these complex cases, working together as a team to share discussions and ideas as well as operating as a team when required by the complexity of the case.

During my time I had the chance to see Prof. Zumstein's approach to complex cases in the outpatient setting and also his many constant and reproducible surgical techniques in theatre. From a biceps tenotomy to huge radical resection and reconstruction surgery for Ewing's sarcoma Prof. Zumstein takes a consistent, considered and evidence-based approach to the surgical process. It was enlightening to see how his theatre team is managed and how the consistency of his surgical methods can help the team to work together and have a positive impact on patient safety. I took a great deal of learning points away from even the most straightforward of cases that I will employ in my future career and will remember the major cases for their endeavour and often imagination required.

Halfway through my year we moved, as a team, from Inselspital to Orthopädie Sonnenhof as Prof. Zumstein moved his practice into the private sector, while remaining in close contact with the Inselspital team as a senior consultant and also retaining research activity with the hospital, translational medicine department and University of Bern.

The new practice remains in Bern, so there was no need to move accommodation and it was a great pleasure and honour, if slightly stressful, to be part of setting up a new practice with Prof. Zumstein. There were many hurdles: administrative, clinical and procedural, but this experience, I believe, was almost as valuable as the clinical and research experience I came here to gather. Once set up in the brand new Sonnenhof offices, we had regular operating lists two to three days per week, with occasional complex cases back at Inselspital. We continued to have outpatients clinics on Tuesdays and Wednesdays with a wide array of regular and uncommon cases and a preponderance of high level athletes to manage.

### *Scientific Activities*

Prof. Zumstein constantly has an array of research projects ongoing and I had the chance to take part in a number of studies with residents, fellows and consultants, some of which I shall continue to collaborate with over the coming years.

The BiPOD technique for ACJ stabilisation devised by the team a number of years ago has seen excellent clinical results and I was given the chance to work up the clinical follow up data as prepare publication of the study. In addition to this I completed the statistical analysis and write up for two existing studies, one related to ACJ injury and one on reverse geometry shoulder arthroplasty; the latter was a very interesting computer modelling project carried out in conjunction with Medacta.

Jointly with Dr. Lesniewski, another EFFORT Foundation visiting fellow, I devised a novel ACJ injury radiographic measurement and classification for injury, which has now been written up and is under submission for publication. Hopefully, I shall have written four very high-quality research articles this year with Prof. Zumstein

I have a strong research background and Prof. Zumstein treated me with great equality in all aspects of our research work, valuing my opinion and allowing us to work together as a team.



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I worked closely with him in his role as Basic Science Editor for JSES, reviewing articles and offering opinion on publication suitability.

### *Social Aspects*

My wife and I have always had a love of the Alps and Switzerland provides constant glorious vistas of these rugged mountains. From the Inselspital it is possible to see, on a clear day, an incredible view of the Bernese Oberland including the Jungfrau, Mönch and Eiger. One great delight for me personally during our stay was that we could see all three of these peaks from our kitchen window in our family flat in Münsingen, as small, friendly town halfway between Bern and Thun. The surrounding area offers great walking, arts, culture, history and wonderful opportunities for young families and children. Our eldest daughter loved taking the train everywhere and, with such a wonderful public transport system, who wouldn't?

Although Switzerland as a country has so many wonderful aspects it was the people we met who made our time so enjoyable and rewarding. Everyone at the Inselspital was willing to help in any way they could, there were always several other fellows in the department at any one time and I'm sure all would report the same positive experience. I shall take away a great deal of clinical and surgical learning but also a vast array of great memories and new friends.

The team at Orthopädie Sonnhof was close knit and we enjoyed a number of great dinners out together as well as ice hockey and handball games!

### *Technical Skills*

Prof. Zumstein has a systematic and reproducible approach to surgery, his method is easily trainable and offers a stepwise approach to complex surgical procedures that help to keep one safe and escape from difficulty as inevitable challenges arise in such cases. I have had the chance to develop my arthroscopic skills, especially with difficult rotator cuff repairs, often involving subscapularis and more peripheral pathology including HAGL fixation and superior and posterior labral lesions.

### *Theoretical Knowledge*

The Swiss approach to orthopaedic training is one of significant theoretical foundation prior to developing operative experience and aptitude, as such there is no lack of thought behind any procedure or pathology here. Prof. Zumstein is no exception and his attention to detail in understanding pathology, biomechanics of disease and treatment are second to none. He is one of a small group of surgeons involved in design and development of the Medacta shoulder replacement and his teaching on the principles of the design, reasoning behind the decision taken and how to use the modularity of the prosthesis to restore anatomy in the most effective manner are intriguing and taught me a great deal.

### *New Knowledge and Skills for My Own Practice*

The particular areas of focus, both theoretical and procedural that will stay with me are Prof. Zumstein's meticulous approach to diagnosis in the clinic and attention to detail in his examination. Surgically, his preparation, particularly for arthroplasty cases allows for a clear plan to take shape during the case and potential pitfalls and necessary changes to that plan



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to be identified prior to surgery. Novel areas of learning that will stay with me include surgical management of scapula and proximal humeral fractures, where my prior experience had been limited, this will be invaluable in the future.

### *Personal Reflection*

I would recommend Prof. Zumstein, Inselspital and Orthopädie Sonnenhof extremely highly for anyone looking to further their knowledge and experience in shoulder and elbow surgery. Had I not quickly acquired a Swiss medical licence, the fellowship would have been less hands on surgically than in some part of the world, but as an opportunity to develop and crystallise one's own approach to future clinical care and surgical manner it was second to none. I have developed significantly as a surgeon, a researcher and an individual through my experience in Bern and look forward to coming back to visit as often as possible.

Prof. Zumstein has an infectious enthusiasm and drive that was a privilege to share and learn from; his guidance and mentorship will stay with me throughout my future career. I am phenomenally grateful to him and his team for making me so welcome and offering such great learning opportunities. I must also pay huge thanks to the EFFORT Foundation and Medacta for such generous financial support, without which the fellowship would not have been possible.

Dr Richard Murphy MBChB MA MRCS DPhil FRCS(Orth)