

### Dr REN wei

Division of Orthopaedic Trauma

Visiting period: 16 January 2021 to 30 June 2021

Working Hospital: Beijing United Family Hospital, Beijing China.

# Fellowship Report

As an orthopaedic surgeon who works in an international hospital in Beijing, I have a strong desire to travel to different places to learn new knowledge, techniques, and experience diverse cultures. After a few interviews with several centres in different countries/cities, I decided to come to Queen Mary Hospital of the University of Hong Kong to start my first overseas training. It is not only because there are excellent surgeons who provide high-standard treatment to patients, first-class research, but more importantly, I can participate in clinical practices as a legal limited registered surgeon in Queen Mary Hospital. On the first day of 2021, amidst the pandemic of COVID-19, I came to Hong Kong to start this new colourful chapter of my life.

## Work and Study

After I met with Professor Frankie Leung on the first day, my work started. My supervisor is Dr. Colin Yung, who is a young but extraordinarily experienced surgeon. I went to the ward at 7:15 every morning to preview the newly admitted cases. After discussing them with Dr Yung, he led me to ward-round. We began surgeries at 8:30 AM. The first day when I went to the operation theatre, I was astonished by the learning atmosphere (Figure 1.), teamwork of OT staffs, experienced nurses and technicians. Whether in the public hospital or the private hospital that I had worked in; I have never seen so many hands assisting on one patient together, which is very efficient and time-saving. The scrub nurses knew every step of the procedure and they could preempt the next step with the tools ready for the surgeons before they were asked. The circulating nurses always stood by the table, communicating with and reminding the scrub nurse what needs to be done timely and correctly. All of which reduces the surgery time and makes the procedures much safer.



Figure 1. Dr. Yung was teaching the resident trainees and medical student interns at the interval between surgeries.

In the daily operations, the professors would participate in the difficult and complex cases. I am fortunate to know Professor Christan Fang, who is a surgeon with great passion for Orthopaedics and is full of innovative ideas. I observed how he performed routine surgeries in alternate ways and performed uncommon and complex procedures flawlessly with his talented operating skills. He also does a lot of research, and it was a great fortune for me to participate in a few of them. He taught me how to do Robotic SI screws and S2 alar iliac screws in his cadaveric study. Moreover, he opened a door for me to experience the magic of 3D printing. I have witnessed and participated in 3D printing assisted fracture fixations, 3D printing patient specific jigs for high tibial osteotomy, deformity correction and reverse shoulder arthroplasties. (Figure 2 and 3.)



Figure 2. Robotic assisted pelvic fracture S2 alar iliac screw fixation in a cadaveric study.

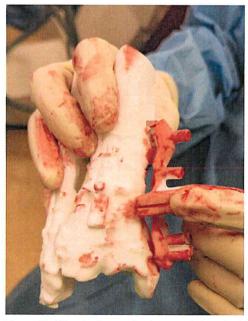


Figure 3. 3D printing malunion model and with patient specific jig to guide corrective osteotomy.

### Weekend Life

Hong Kong is a place full of beautiful islands, delicious food and diverse cultures. I had many wonderful weekends during these six months. I have been to Cheung Chau (Figure 4.), Lamma island, Po Toi islands, Sai Kung, and Shek O. All of these tourist attractions have scenic beautiful blue seas, excellent local food with each location having their own merits. For instance, you can find the old villages in Lamma island; the Po Toi island is an excellent place to hike, and you can go fishing and enjoy seafood in Sai Kung.

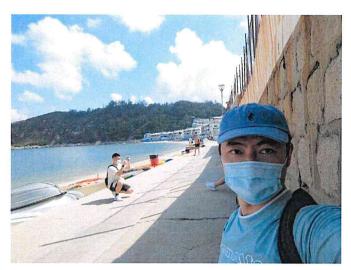


Figure 4. Weekend in Cheung Chau island.

I played soccer every Saturday, during which I have made friends. I taught my teammates how to perform CPR and use the AED, which may save lives in a specific situation. We played soccer at the Stanley Ho Sports Centre of the University of Hong Kong. Fellows at the Queen Mary Hospital are free to use all the facilities. (Figure 5.)



Figure 5: Weekend in HKU Stanley Ho Sports Centre.

#### Acheivement and Future Plan

I encountered almost all type of injuries in Orthopaedic Trauma during this training. I participated intra-operatively in nearly all of them. Management of lower limb fractures were my weak point before I came here. The massive exposure of hip fractures, femur fractures provided me with plenty of opportunities to learn. I have become more confident in performing all lower limb surgeries by the end of this fellowship.

From a high-tech point of view, 3D printing and surgical robotic assisted technology are handy tools to improve the accuracy of surgeries dramatically. Which is especially needed for the private hospital I am working in. I have learned how to use Mimics to plan 3D printing to guide the management of fractures and osteotomies. I have also mastered the basic techniques of robotic surgeries.

Lastly, before I came to Hong Kong, I set goals to bring home new knowledge, technical advances and friendships at the end of the fellowship. I am satisfied to have achieved all my expected aims. Words cannot express my gratitude to the wonderful team (Figure 6). All the achievements will benefit me and my patients for the rest of my life. I hope this will continue for all the future fellows who are lucky to come here.



Figure 6. Professors and colleagues in Division of Orthopaedic Trauma at Queen Mary Hospital.