

# AMSF Travel Scholarship Report

**Recipient: Jennifer Sim**

**Destination: Norway**



**ADELAIDE MEDICAL  
STUDENTS' FOUNDATION**

Ultrasound is a fascinating and useful imaging technique, with the additional benefits of exposing the patient to no radiation risk and being minimally invasive. Three years ago, I learnt how to measure superior mesenteric artery blood flow velocity for research and since then, I have wanted to further explore the use of abdominal ultrasound in clinical practice. The world expert in abdominal ultrasound for the assessment of gastrointestinal pathology is gastroenterologist Professor Trygve Hausken of the Haukeland University Hospital in Bergen, Norway. The AMSF Travel Scholarship gave me the means to travel to Haukeland University Hospital and learn the technique of abdominal ultrasound under the tutelage of Professor Hausken.



*Flåm Valley on an uncharacteristically clear and sunny day.*

Professor Hausken specializes in the use of ultrasound in monitoring inflammatory bowel disease and, while I was in Bergen, often in differentiating irritable bowel syndrome from more clearly defined organic disease. I was able to watch tests he developed to detect irritable bowel syndrome while also learning a systematic approach to abdominal ultrasound. I learnt about a recently validation study completed by the group, that mapped the expected thickness of the bowel and enabled him to identify likely areas of disease. With daily observation and eventual practice, my confidence in interpreting abdominal ultrasound has increased dramatically. It was particularly helpful to ultrasound both patients with advanced liver and bowel disease, as well as young and healthy patients who were referred for investigation of malabsorptive disease. Physically performing ultrasounds with patients helped me remember key clinical facts. For example, the pancreas normally appears brighter on ultrasound with increasing age due to non-pathological fibrosis, however, a liver which appears brighter than normal is most likely pathological, for example suffering from fatty infiltration. This was indeed an exposure which I greatly value and would otherwise not have had the opportunity to experience in a core curriculum.

Abdominal ultrasounds were scheduled in the morning and in the afternoon I observed consults, endoscopies, research meetings and sometimes joined lectures with the local medical students. Many other consultants were happy to teach me in English and, much to the delight of locals, quickly mastered the Norwegian phrases for, "Hello, my name is Jennifer, lovely to meet you. I come from Australia. Can we speak English please?"

When I arrived, I was even invited to attend the final exam of a medical student. The exam that I observed was the final practical for a medical student who was then to start internship three months later. It involved an hour of history and exam followed by VIVA style questioning for 30 minutes. The physical exam was of particular interest. The patient had been admitted for haematemesis secondary to Mallory Weiss tears and alcohol abuse. Without a six minute time limit the student was very thorough and did a few things that I would not have routinely examined; such as looking at for the thyroid and checking for axillary lymph nodes. In our exams I expect that we would omit any physical examination that was not pertinent to the presenting complaint. It was very interesting to compare the two styles of examination and I understand that the medical school is considering changing the final exams to the observed structured clinical examination style of America and Australia. I was touched to find that the staff had specially arranged a tablecloth, juice and biscuits to be in the examination room to make me feel comfortable.



*This church sits in the middle of the city and has a cannon ball stuck in the wall beside the glass window. This type of cannon ball would have been shot from a ship and is evidence that this building was at the seafront, and thus built before Bergen was extended with reclaimed land.*

This hospitality extended beyond the hospital placement. Professor Hausken and the research team invited me to the annual Medviz Conference, a European medical imaging meeting established and held in Bergen. The meeting primarily featured the projects of PhD students of the medical, engineering, imaging and mathematical sciences, but also featured selected studies of researchers ranging in level from Honours students to university professors. Professor Gilja, the head of Gastroenterology at Haukeland University Hospital, established the conference after recognising a gap in communication between each sector.



*Professor Hausken in the white scrubs and coat worn by all doctors.*

Earlier sessions were incredibly technical but as they became more clinically orientated I felt as though they became increasingly interesting and helpful. Highlights included an ultrasound probe with an optic window, the various experimental studies involving the use of 'micro-bubbles', both for the transport of pharmaceutical agents to targeted locations and also in the destruction of thromboemboli. I also enjoyed watching the presentation of a physics post doctorate who presented the physiology of the kidney very clearly in 5 minutes. An afternoon session also included speed poster presentations, which I have never



seen or heard of before, where those presenting posters had one minute to advertise their project. The conference included a buffet dinner of attendees on the impressive Statsraad Lehmkuhl, which was built in 1914 and used as a training vessel by the Royal Norwegian Navy. The dinner was delicious and a good opportunity to mingle with presenters and attending doctors.

I also met doctors, midwives, nurses and scientists at my accommodation; the hospital living quarters. A neurologist from the Maldives invited me to a Summer solstice party near our building in a picturesque park beside Uriken, the highest mountain surrounding Bergen. She was one of the many lovely people I befriended during my stay. I also travelled four hours by bus to visit a fellow medical student and some interns working in a quaint small town named Førde as well as visiting the famous fjords of Flåm valley.



The Adelaide Medical Students Foundation Travel Scholarship helped me travel to this beautiful country and learn abdominal ultrasound from the world expert, discover a fascinating and innovative new conference and unearth the interesting Norwegian culture and language. The trip has given me a better understanding of the specialty, but has more importantly given me a bigger picture of how other health systems and medical schools function. My highly enjoyable time in Bergen has not only given me invaluable knowledge and experience that will assist my future clinical and academic career, but helped me grow in my understanding and experience of the world.

I would like to thank The Adelaide Medical Students Foundation giving me such an amazing opportunity and Professors Hausken and Gilja for their warm hospitality.

