

Testimony of the activity

One of the main reasons I was excited about participating in this program was the opportunity to conduct research in a world-leading scientific environment that is the Weizmann Institute of Science. I was conducting research in the optics laboratory in the Department of Materials and Interfaces, Faculty of Chemical Sciences. Our project was entitled “Experimental Investigation into Chirality Using Raman Optical Activity Measured by Dual Beam Modulation”. Our aim was to use the physics of laser light to determine chemical properties of solutions and materials. The work was particularly stimulating as we discovered that our project could have important implications in the pharmaceutical industry and in the future for highly efficient data storage.

I really enjoyed my time in the lab as we (our research group was made up of three other ISSI program members from Australia, South Korea and the USA) had independence in determining what experimentation will provide the desired information, and how we would get about obtaining it. This is a skill that is key in research but is difficult to train in other settings.

The interdisciplinary nature of the project resulted in us all learning new science. Coming from all around the world, we all had been exposed to different school systems and were passionate about different topics in the same field. For this reason, teamwork was really important in successfully conducting and documenting the research. We learnt how to divide the work between us depending on our strengths, while ensuring that every member was aware of all aspects of the projects.

Finally, I enjoyed the lab experience so much because we had the opportunity to write a group scientific report and present our work. We were challenged in how we could concisely and clearly explain our research to an audience who was not studying the same field of science. As I have always enjoyed science communication, I loved to have this opportunity.

While the lab work was a novel experience, we also explored Israeli culture and landscapes through the weekend trips and the desert excursion.

The first weekend we travelled to Jerusalem and began at Mount Herzl. Here we learned about Zionism and the foundation of the state of Israel. We then visited the Holocaust Museum, and in particular the memorial to the fallen children and a gallery with a collection of photographs from the war. This was a very moving experience and I could understand how important this event was in the foundation of the state.

We continued to the busy Machane Yehuda Market where we could explore the local flavours. I was surprised by the diversity present and how Israel is a hotpot of Middle Eastern and Mediterranean culture. Indeed, thousands of years ago it was known as the “centre of the world” and was already varying with ethnicities. We also discovered the old city, including the Wailing Wall, the Church of the Holy Sepulchre, and the four different quarters.

The following weekend we toured Galilee, the northern region of the country. We learned about the ancient seaside city Caesarea founded by King Herod the Great. The harbour was an engineering feat at the time and allowed the city to prosper. We continued to Haifa where we explored the Bahai Gardens; a holy site for people of the Baha’i Faith. From one religion to the next, we were welcomed to a Druze village with traditional local food. I found the hummus particularly delicious, and we were given the opportunity to ask questions to a local about their religion and way of life. The next day we travelled to the border with Lebanon and visited grottos in the foot of the mountain separating the two countries. It was a particular experience to watch the waves crash underground.

At the end of the program we travelled through Israel for a longer five-day desert excursion. We hiked through the deserts of the Nahal Arugot trail, Har Zefahot and the famous Massada mountain. The heat was a challenge to all of us but the great group spirit and the stunning views made it all worth it. A particular example of this was when we were all running up Massada at 4 in the morning to catch the sunrise from the summit. As we didn’t have much time and we were worried we would miss it, we started sprinting up the mountain. Scattered all along the trail I could hear everyone cheering each other on.

Other highlights included snorkelling the Red Sea – where the abundance of corals and wildlife was very different to the surrounding desert – and our trip to the Makhtesh Ramon where we learnt about Ilan Ramon, Israel’s first astronaut.

The whole experience of the program was really great. It was an environment where everyone had the opportunity to challenge themselves in science, but also so much more. I met many passionate young people whose drive to use science for change was inspiring.