

# Bericht über Studienaufenthalt an der University of Alberta, Kanada

WS 2016/17, von Sophie Frommelt

## Arrival

In the first week of January I got on a plane to fly to Edmonton to start my semester abroad at the University of Alberta (thereinafter UofA). Mira and Chad, two of my future colleagues at the laboratory, welcomed me up at the airport, showed me the campus, got me the keys to my flat for the next 4 ½ months and helped me settle down –the perfect start for my Canadian “adventure”. On the following day, the international centre of the UofA had organized a welcome event for all exchange students, where I not only learned some facts about the UofA, Edmonton and the Canadian winter but also went on an official Campus tour at arctic temperatures. Despite my jetlag I had a great time, met lots of new people and made some friends, who accompanied me for the entire semester.

My first lab meeting was at my second day in Canada. My professor, Dr. Evans, introduced me to the rest of my lab group – everybody in the team was very nice and friendly and I felt immediately like a full member of the group. Afterwards, Ryan, the primary investigator (PI), gave me a tour through the laboratory, handed me my chip-card and the keys to the lab which enabled me to enter it twenty-four-seven.

In my first week in Canada I could not only verify all the stereotypes of the welcoming, friendly, helpful and polite Canadians, but also that biologists love to work long hours all around the world. Nevertheless, I got the feeling that the upcoming semester would become an unforgettable and great experience.

## Courses

After applying for courses at the Institute of Biological Sciences and the Institute of Medical Microbiology and Immunology (MMI), the latter offered me the opportunity to work as a research intern full-time in one of their laboratories. The only condition was to independently find a supervisor. Since I was eager to gather work experiences in a laboratory abroad, I caught at this unique offer and the search for a supervisor began. After getting myself familiar with the various fields of research at the MMI, I decided to apply for an internship in Dr. David Evans’ lab, who is working with oncolytic viruses. Fortunately, Dr. Evans had a vacancy in his lab. After a telephone conference with him and his PI Ryan my research project for the next four months was defined. The project concentrated on the further development of the current oncolytic pox virus by means of genetic engineering. I got the chance to create a new recombinant pox virus expressing a gene of the herpes simplex virus and to improve my molecular lab techniques inter alia performing cloning, Western and Southern blots, antibody staining, and RT-qPCR. In addition, I got trained in the use of

the confocal laser scanning microscope to take images of my cellular staining. I really appreciate that Ryan enabled me to try out every method I was interested in, even if it was not crucial for my project. The working environment in the lab was great; everyone helped me with my questions about virology and cheered me up after a failed experiment. We spent the lunch breaks together in the staffroom which was always a lot of fun. Also Games evenings, escape rooms and pub-quizzes with the whole lab group were quite frequent and belong to the best memories of my exchange semester in Canada.



Every second Friday morning, we had lab meeting where everybody of the lab group had to present his/her lab work of the previous two weeks in front of Dr. Evans, who provided feedback and gave useful advice as well as valuable tips to improve the experiments. On the Fridays in between we had large lab meetings, where four different lab groups came together to discuss the progress report of two participants. At the end of my stay at the UofA I presented my work in the large lab meeting - the most challenging, but simultaneously most rewarding experience of my stay in Canada. Every Thursday afternoon was a lecture about new discoveries in the research field of immunology and virology given by different professors of the UofA or visiting professors. All presentations were very interesting and informative, and allowed me to deepen my knowledge base in the fields of immunology and virology.

My working hours at the lab were Mondays to Fridays, from 9.00 to 17.00, but almost every day I came in earlier and I did not once leave the lab before 6 p.m. Nearly every weekend I spent part of it in the lab to finish my experiments and/or to split my cells. The amount of work required is comparable to a Bachelor or Master thesis performed in one of the labs at the University of Innsbruck and thus I was not surprised by the expected work load. Furthermore, the work atmosphere was quite similar to the working climate the University of Innsbruck: familiar and informal but still respectful. I really enjoyed that I could work on my own after a short lab enrolment through Ryan, and appreciated that he was still very interested in my experimental results and the progress of the project. Also Dr. Evans showed great interest in the progress of the project and came personally to the lab every second to third day to receive an update. This personal supervision of my research pushed me to give my best.

## **Residence**

I decided to live on Campus in one of the several residences of the UofA to get the most out of my stay, as I have never studied at a “real Campus University” before. I applied for a room in the International House to meet exchange students from all around the world, but unfortunately all the rooms were already taken. Luckily, the residence service found me another place and I ended up living in a one-room apartment in HUB, the dormitory that combines all in one: shopping mall, LRT station, university bus stop as well as housing for students. Although the room was rather expansive I do not regret renting it, because many of my international friends lived in HUB and the lab and the climbing hall were both in walking distance (5 min). This is a big advantage as the temperatures range from -15 to -35°C in the winter term.



The HUB-residence and the view out of the window of my flat on the Campus covered in snow.

## **Edmonton**

Edmonton is the capital city of the Canadian province of Alberta, and with a population of almost 1.000.000 the fifth largest city of Canada. The North Saskatchewan River and the surrounding River Valley bisect the city: Downtown with skyscrapers and museums on the one side and the University Campus and Whyte Avenue on the other side of the river.

The Art Gallery of Alberta (free for all UofA students), the Telus Centre of Science and the botanical gardens of the Muttart Conservatory, all located downtown, are the cultural highlights of the city and were always worth a visit.



The many shops, pubs, restaurants, and bars on Whyte Avenue, located in walking distance from the University Campus, provided a good opportunity to spend time (and money) with my friends after a long day in the lab.

The River Valley was my favourite spot of the city. This large park area, with walking and biking trails along the Saskatchewan River, adjoins the University Campus and was the ideal place to enjoy the clear air and chilly temperatures on a sunny winter day.



All trees and bushes were covered in snow giving the River valley an almost magical atmosphere.

## Campus Life

The North Campus, where I lived and worked, encompasses most faculty and residence buildings and is the main campus of the UofA. Furthermore, it also includes the University's sports centre comprising, *inter alia*, two swimming pools, a climbing hall, a gym, soccer fields and an ice rink, which are free of charge for international students. As sport is a good way to clean one's head, I spend most of my evenings in the sports centre either bouldering with my friends or watching the Golden bears (UofA's ice hockey team) play hockey.



Several libraries with student-friendly opening hours offer enough space for all diligent and hardworking students. My favourite library, the Cameron library (open twenty-four-seven), was like a second home to me considering the numerous nights and weekends I spend there working on my thesis.

The Student Union building (SUB) is also located on the North Campus. There you can find the health-care centre in case you get sick, the book store if you want to buy UofA merchandise, a huge learning space with comfortable sofas and chairs in case you are not the library learning type and many student clubs' offices if you want to join one of them. I can recommend the outdoors club and the skiing club as they organize affordable weekend trips to the Rocky Mountain to go hiking and skiing. Moreover, the members are nice, funny, and very welcoming which makes it easy to find new friends.



Since there is no flatter city than Edmonton, the trips to the Rockies felt like coming home.

### **Returning Home**

After finishing my work in the lab at the end of April, I spend a whole month with some of my international friends travelling the west coast of Canada. The wonderful and untouched countryside of BC and the numerous sightings of wild animals (bears, wolves, and whales) were the perfect end for my Canadian adventure.



Although I was looking forward to coming back home to my family and friends I was also sad to leave Canada as I had to leave most of my new-found friends behind. I also miss my wonderful lab group, the welcoming and friendly manner of Canadians and even the Canadian winter with lots of snow. My exchange semester at the UofA was a great experience which allowed me to glimpse into the research work of a laboratory abroad and helped me to improve my scientific skills at more than one level. Therefore I can only recommend everybody to take the chance provided by the Canada Centre of the University of Innsbruck to spend one term at the University of Alberta in Edmonton.