



Travel Story 2015

Name:	Matilda Berkell
Year/line of study:	Medical Biotechnology, 9th semester at KTH
University:	Brown University, Providence, RI
Time frame:	2015-06-15 – 2015-08-14
Visa type:	J-1
Insurance:	HTH Worldwide
Scholarship:	\$2500 from KTH School of Biotechnology

Project description

During my summer visit I worked in a lab that combined the skills of Chemical Engineering, Biotechnology and Biochemical Engineering to design microfluidic devices with clinical applications for identification of infectious diseases, protein structures and biological molecules. These applications have the aim of contributing to translational research and global health. More specifically, my work was focused on perfecting a microfluidic chip designed in this lab, used for purification of nucleic acids. The goal with this microfluidic chip is to use it for HIV diagnostics for example, since it provides an accurate and efficient method of purification/extraction of RNA from a cell-free sample such as serum or plasma. Several techniques exist for HIV diagnostics, but this method is designed to require as little laboratory equipment as possible which in the future might be a possible ground for a POC test.

Upon my arrival Prof. Tripathi asked me what views I had on the work conducted in his lab and we came to a mutual agreement on what my main focus would be during the summer. The first part of the internship was dedicated to familiarize the techniques used in regards to the microfluidic chip. For this part I was mentored by one of the grad students currently working in the lab. During the second part, my work was entirely independent. I had a meeting at least once a week with the professor to discuss my results and future aspects of the project. I was responsible for designing all experiments as well as conducting them and interpreting the results. This laid the basis for a paper that I am currently writing that is to be published this autumn.

My work hours were very flexible; as long as I provided sufficient results it didn't matter whether I worked during daytime, nighttime or weekends. Therefore, I was free to take a day or two off for traveling every now and then.

Since I was in charge of the planning of my own time and I got the privilege to come up with an idea of how to move the project forward and was given a great deal of responsibility. I am going to keep working with him from Stockholm and am currently working on finishing the paper. The knowledge I had from my studies at KTH were sufficient to prepare me for what this summer had in store, but that said I still spent a lot of time doing research since the work conducted in the lab is cutting edge science.

Campus life

Unfortunately, I did not participate much in the activities at Campus, I chose to spend my time on travelling around New England instead. Since Providence is only an hour away from Boston and four hours away from New York City I paid each of the cities more than one visit. Even though Providence is a rather small city I still felt that there were things to explore. It is known as the “creative capital” and has a thriving arts community.

Living expenses in Providence were rather cheap. Housing was about the same as my rent in Stockholm, which is considered to be rather cheap in comparison to larger cities in New England. The scholarship received from the School of Biotechnology at KTH was sufficient to provide for insurance, housing and the flight. Food expenses and travelling was funded privately.

I found my housing through airbnb and can also recommend craigslist for finding housing. My rent was \$500 per month, and I shared the apartment with three other students. The apartment was located in the outskirts of campus; I had a 10-minute walk from my apartment to the lab.

Application

I did not encounter any problems before, during or after my stay. Everyone were very helpful when it came to all my questions regarding visa etc. The university required a proof of my finances and a proof of my insurance before I received my letter of invitation. In order to get my visa, I had to present the letter of invitation from Brown University, a bank statement, my passport, proof of payment of the SEVIS fee, proof of a completed DS-160 form, the approved DS-2019 form from Brown University, a document proving my residence in Sweden, and a photograph.

Conclusion

I had a lot of fun at Brown this summer, and can definitely recommend working in this lab! Prof. Tripathi is very fond of the chust program and really valued my input and ideas on his projects. It is a great learning experience and allows you to establish connections in the U.S if you are interested in future studies there!