

My internship experience

Introduction

I went to the University of Michigan for my first internship in the 3rd semester of my Infection Biology studies. I stayed there from 1st October 2013 until 31st January 2014. The university is located in Ann Arbor, Michigan (USA). I did this internship, because I really wanted to improve my English and I guess there is no better way than going to a country where people speak the language. In addition, I was just interested in seeing the world and get to know people, culture and another way of life.

Finding an internship

To find out what the people in the country, I was interested in, are working on, I just looked on webpages of the universities and tried to figure out what I liked.

After a few failed attempts to apply for an internship, I finally found one and learned a lot about applications for an internship in that process. I always send an email to the group leaders with a long text and a whole application attached to it. Now, I think it is better just to send a short but very comprehensive email with a few details about you and why you want to go to this laboratory and maybe a CV attached, so you don't overload the people with information. It is also less work for you!

I often had the problem that the groups didn't want to take an intern for only 3 months. My impression is that it is not impossible to get an internship for 3 months, but it's easier when you stay longer. That's why I ended up staying for 4 months.

Because my first applications were turned down, I went to Prof. Taube (Virology), who just started his lab at the University of Luebeck and worked at the University of Michigan before. I talked to him and asked about a few specific laboratory groups, I was interested in, at the University of Michigan. He agreed to send my application to Jason Weinberg's group at the Department of Microbiology and Immunology at the Medical School in Michigan. He also suggested that it would be helpful to add an additional document to my CV and letter of motivation. Due to a difference in the education systems, I prepared a document about the skills I already learned during my studies like

different lab techniques and specific theoretical skills which would be helpful for my internship. Finally with his help, my application was a success!

Preparation for my trip

The main things, you have to do, are getting a visa, a place to stay and booking a flight.

The visa process really freaked me out but in the end it was really easy to get the visa. The University of Michigan is really helpful with everything and guides you through all the things you have to consider pretty nicely. But it is still a lot of work! I just orientated on the webpage of the US embassy in Germany. For an internship you need a J-1 visa which requires a few things. The DS-2019 document was definitely the hardest to get. But once you have it, the rest is pretty easy and the interview at the embassy is nothing to worry about. I won't make a list of the required documents here, because I probably forgot already half of them and it is best to figure it out on the official webpage of the embassy, so you don't miss anything.

To find a room was really easy for me, because Prof. Taube just gave me the email address from friends of his in Ann Arbor. So I lived with a family and had my own room in their house. Because I lived in that room with my friend who also started her internship at the same university we split the rent and each of us paid 400\$ for one month. There is also a webpage called "craigslist" where you could probably find something. But 400\$ is pretty cheap. Most likely you have to pay more money for a place to stay.

Internship

I did my internship in the department of Microbiology and Immunology at the University of Michigan in Jason Weinberg's Lab. They work on:

- 1) Adenovirus respiratory infection and the role of PGE₂
- 2) Adenovirus induced myocarditis (Heart inflammation)

The main methods, they use, are mouse models, cell culture, nucleic acid isolations, qPCR's, histology and ELISAs. When I started my internship, Jason gave me a list of all

the projects which were ongoing or planned and I could choose a project of my own in a field I am interested in. And he also gave me the choice of whether I want to work with mice or not. So you have a lot of independence but also responsibility.

I was really interested in the adenovirus induced myocarditis story. So my project included an animal model where I infected mice with the wild-type mouse adenovirus and a mutant virus, which missed the viral E1A protein which is supposed to be important in immune suppression. After a certain time post-infection I harvested the organs and analyzed virus replication and cytokine production as well as inflammation in the heart to assess the influence of E1A protein on virus-induced myocarditis.

I really like the people I worked with. Jason is a really nice and helpful supervisor. His technician and PhD student always helped me if I needed some guidance with the techniques. So all in all it is a really nice team and if you are interested in their field of research, I would strongly recommend this lab!

Culture and activities

When I came here, the first few weeks were really strength because everybody was just so nice and friendly. Not at all what I am used to from the grumpy Northern German people! I really like that and you get to know a lot of people really fast. They try to integrate you a lot in activities.

Ann Arbor is a really nice city to stay, because it has a lot of bars and restaurants like Luebeck and a pretty good public transportation system which I could use for free as an intern of the university.

Because I was here during the winter time, it was really cold and we had a lot of snow. But they have a lot of winter sports, too, like ice skating which is a lot of fun!

All in all

I think my time here was worth it! I would recommend to everybody to get some abroad experience. It is very interesting to see another way of doing things and learning things! I would strongly recommend to apply for an internship in Jason's lab, if you are interested in his work! He is a great guy!