

Scientific stay: Cornell University

Master thesis: Supported Lipid Bilayer:

A Novel Tool to Characterize the Plant Plasma Membrane

Orientation: There are basically three parts in Cornell 1. The giant Campus, which is located in the middle between two wonderful waterfalls (here called Gorges=Canyon) und north of the campus like professors, Sororities and Fraternities (= don't compare them to our well known "Burschenschaften" it's a similar principle, but has no negative reputation here) used to study and party together. And the College town in the south of the campus, here you can find a roaring party every day of the week. Take care, police is present everywhere (really for your safety, they are super helpful) and you are not allowed to drink under 21 years, you need to have your passport with you when ordering alcohol. The police is also extremely helpful, any officer is supposed to walk you home, if you don't feel safe walking home at night. If anything happens, watch out for the blue lanterns, they are located at nearly every crossroad and have an emergence alarm button, installed to call the police. (rape prevention)

The Campus itself is not comparable to anything we have in Austria, beautiful old buildings are paced in a magnificent landscape, overlooking rivers and waterfalls which separate the individual buildings. Here it is obvious, that a private university (in average 25000\$ tuition per semester and student) enables a fertile surrounding for all people and all studies. This is also the motto of Ezra Cornell "any people any Study" when he founded the institution in 1865. It was my best time at university I have ever had and I hope it will also be a wonderful stay for you! Cornell is indeed a very special place on this big world, full of surprises and bright minds.

I started looking for a master thesis during my exchange semester at Cornell University which was followed by a research stay and master thesis at the department of chemical and biochemical engineering at Cornell University. After talking to several professors I got a good sense of their projects, size and structure of their working groups. I was aiming for a smaller working group (10-15 people) as bigger working groups tend to have a more structured hierarchy and you are usually supervised by another senior grad student. In the small working group I got to work together with my professor on a daily basis and presented my data biweekly directly to here. This constellation enabled me to discuss with here my scientific goals and get advice.

When entering the working group I was put on a specific project which was part of another PhD thesis working together and sharing workload with the senior student. After a couple of weeks it turned out, that our project is not going to take off as we would have expected it to be, so I had a long conversation with my professor. As I had my own idea at this point I was asking for support and promised preliminary results within 4 weeks.

My idea was to combine a technique I have learned before in my laboratory at BOKU University and the technique I have learned at my laboratory at Cornell and tried to develop a new field of application. After working on my own project for one month without any success I thought about changing field for a last time, but at this point I reached out to other laboratories to help me with this initial step. This was the most important point in my project. We had success and I could do the initial transformation which would not have been possible without my collaborators. After this initial success I kept this habit of asking for help and I can't remember how many laboratories I have reached out to, but at the end I had about 4 different working groups that helped me to achieve my goal. This was a fantastic experience and a great experience of a positive collaboration where people contribute with knowledge and not with labor. It was a very intense work, ranging from 40 h to 70 h a week but the results were good enough to get published so it was worth the effort. Probably the most important experience I have learned during these months was to see how the brains of successful people work and how they approach problems. As well as how they deal with draw backs.

Beside my research was also involved in as many clubs a possible, which is easy, as everything is happening here on campus and you can simply drop in after work. People here are extremely motivated and participate in several clubs beside their very intense e semester. There are more than 1000 Clubs here at Cornell. There is even the squirrel-watcher club and a watcher of the squirrel-watcher club. But there are also many Bands, Coral und Ensembles. Some are hard to get into but the Cornell coral has accepted me even for only one semester. Other institutions like „The hangovers Acapella“ are more exclusive. But there are also other options such as, „Handshake-portal “definitely register, it offers, IVY league connections“ to almost all alumni.

Everybody studying or doing research here has to participate in the Cornell health insurance plan, (1250 \$) So get the most out of it, you can get all your vaccination here for free, as well as an annual flu shot for free. And for those of you who are visiting in the dark spring semester, it's even possible to borrow a “daylight antidepressant lamp”. Get a gym and climbing wall membership together. You will never find that excellent facilities in your life for this price! It's not super cheap (gym 80\$ and Lindseth Climbing center 80\$) for the semester but the locations are just amazing. On gym-pass enables you to workout in all the gyms, I spent every night after school (yes people call a university here school) at either one or the other. If you want to explore the beautiful nature I highly recommend the Cornell outdoor education “COE” – Center which offers all kinds of trips and courses to beautiful locations, on foot, by bike or very cool by Kayak. Take at least one of them, they are a wonderful and priceless memory. By the way, if you are interested of free offers, the pool is always free and there is a variety of other free PE-classes available Visit the “Cornell PE” class section.