

## Wake me up in San Francisco!

I'm sitting here now, three weeks after-the-fact, looking back on one of the most amazing periods in my life; seven months of research and travelling in the Golden State.

There I was, April 1<sup>st</sup> (no joke) at Schiphol, saying my final goodbyes to family and friends. After many months of visa applications and grant proposals it was finally time to go. I would trade the 10 degrees, overcast Dutch spring weather for the golden rays that California is so well-known for.

I had found a beautiful, albeit expensive, room in Oakland, across the bay from San Francisco, where I would be staying with real-life Americans. Luckily for me, they turned out to be the most awesome roommates you could wish for and we spent many an evening together ridiculing Trump, the Dutch language, indulging in tantalizing Italian ice cream and enjoying exquisite home cooking. The friendliness and openness they displayed towards me was something that I would encounter often in the US, leading me to believe that the American people are naturally friendly, polite and chatty (well... in California).

I would be working at Yifan Cheng's lab, a structural biologist with a focus on cryo-electron microscopy (cryo-EM). His lab was the first to purify and solve a structure of an ion channel to high resolution with this technique (TRPV1 in 2013), and the lab has remained at the forefront of this field ever since. In my project, I would be attempting to purify and hopefully solve the structure of an ion channel that reabsorbs calcium in the kidney (TRPV5).

My first days at the lab were challenging. The people in the US do not really understand our European educational system and they are unfamiliar with master students. My introduction existed of an hour-long tour through the lab and then I was brought to my desk, home for the next six months. I did not really have a direct supervisor and was free, within certain boundaries, to pursue my project. After struggling for a bit, this approach started to grow on me, and it felt very fulfilling to explore on my own accord. After some months, I hit the jackpot and could purify my protein and put it on microscopy grids for cryo-EM. Taken together, TRPV5 became one of the most unbelievable success stories and we were able to achieve far more than any of us believed possible at the start of the project.

Outside of the lab, my days were filled with a wide array of different activities. Together with Lukas, a German student who started in Yifan's lab on the same day I did, I would start going to the gym three days a week. We enrolled in friendly soccer matches and went to multiple international student events. Here we met other international students, and we would go on to form a tight group of six. Together, we went surfing in Santa Cruz, climbed many a mountain in Lake Tahoe and Lassen National Park and went star-gazing during a meteor shower. Besides travelling with the international students, I would go out with my roommates and had the opportunity to enjoy some parties on the beach, the view of San Francisco at night, and some very weird parades. Through all of this, I started to acquire a thorough understanding of the hippie culture that persists in San Francisco.

After completing my internship at the lab, I went on to travel to various national parks in the US, together with Marie (one of the international students) and a friend from the Netherlands. We rented a car and experienced your stereotypical road trip, with tumbleweeds, Las Vegas, and daunting hikes through parts of the world that can only be described as paradise.

My thanks goes out to the Nora Baart foundation for making this possible. For any of you that are contemplating doing an internship in California, to you I say: GO!, it's amazing. The combination of endless possibilities, challenging work, the amazing feel of San Francisco, innovation and a very friendly culture make this an experience you'll never forget. I know I won't.

