

Doctoral thesis
USA
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Harvard University
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There has always been a strong interest in scientific work during my education. Based on the idea to have a more bench-to-bedside focus, I decided to apply for a doctoral thesis preferably combining it with a stay abroad.

I did a long online research of Freiburg labs and affiliated facilities around it. I introduced myself to many different ones, often without receiving a reply. After all, I was lucky and was able to arrange a meeting with my present supervisor in Germany. He was in the laboratory in Boston as a postdoc and connected me with his old lab overseas. I had to wait 2 months for the reply but after Christmas 2018 I knew I had a placement in a research facility in Boston, Massachusetts. Soon after I contacted my supervisor in Boston who is also the Principal Investigator (PI) of this lab. He gave me all the information needed to organize my stay. In the following I had to sort out issues such as funding, visa, flights, housing, project, etc.

Funding

In order to prepare an application of funding I started to write up a project proposal explaining what exactly I plan to do during my stay abroad. It also included all the expenses that are expected for this period. For the project I talked to my supervisor in Freiburg who was very helpful and got back to me instantly to every question I had. I have never been to the US before and therefore I needed some more information about the cost of living. In order to do so, I talked to the medical students that have been there before me. As life turned out to be much more expensive in the USA, I am as much more thankful for the support of PROMOS and the DAAD.

Visa

I was there on a J-1 visa and had a lot of support by the local offices. The visa process took by far the longest and therefore the application should be started as soon as possible. My PI referred me to the international office which were in charge for the visa application. Several documents had to go back and forth in order to get the most important one, your DS-2019. In my case, this form was lost in the mail and had to be sent again. Without this, it is not possible to get an appointment in the embassy in Frankfurt and for this reason my schedule just before my departure was very stressful. In the end it worked out just fine for me but getting the visa earlier than 5 days before your flight makes life a lot easier.

Flights

There are many direct flights from Europe and the ones most interesting for me were Swiss from Zurich or Lufthansa from Frankfurt. Other than that, there are budget airlines such as TAP or Norwegian with one stopover. Considering the luggage for a couple months and the additional cost of it, I decided to get a direct one from Frankfurt. I booked them a few months in advance and therefore the flights were reasonably cheap.

Insurance

The international office had strict instructions of insurance in order to obtain the visa. The one I got consisted of two packages from two different suppliers to cover everything what was asked for. It seemed like yet another black hole in which your money disappears, but I was very happy that I have had good insurance in the States, especially after a horrendous bill of an emergency dental procedure.

Housing

Rent was my biggest expense. Living in the US, especially East Coast and Boston is extremely expensive. For the first 3 months, I managed to live together with a Coworker from the lab but soon I had to move to a cheaper apartment. It is easy to find an apartment on websites such as Craigslist or Facebook Groups. Normal lease goes from September to September but most of the time people sublet their rooms. For my sublet, I only needed a passport and later an American bank account to pay my rent online. A few friends which didn't want to go through this process or looked from Europe just used AirBnB. Because prices are so high there is no big difference if you rent a long-term AirBnB.

I arrived late August and was able to spend the last days of summer in Boston before starting the work. Luckily, our lab hosted their yearly barbeque right at the sea the week I arrived allowing me to get to know them outside of work. The following days consisted of all the organization and bureaucracy that has to be done such as getting access to the building, project outline, online safety training, health inspection, etc. Next to familiarizing on-site, I took the spare time to sort out housing, meeting new friends and getting used to my new home.

I lived in Brookline close to Coolidge Corner. I really liked the area because it offers lots of bars, restaurants and a good Metro (T) connection. Many employees that work in the Longwood medical area live there as well because the work is just a stone's throw away. In the beginning I signed up for several tours around campus to meet new people and despite my jet lag I tried to go to as many social gatherings as possible. I was happy I did all that because they were also very happy to rent a car on weekends for example, in order to get out of the work routine and explore Boston with its surroundings.

Boston and greater area

I was fascinated by the diversity of Boston and its surroundings. On the one hand you had the metropolitan part such as downtown and on the other hand beautiful nature around it. Within a short range, there are several hiking areas, beaches, national parks, etc. My personal favorite was Plum island – a wildlife resort and national park right by the coast. A problem I always came across was that most places require a car, but I didn't have one. However, I took my bike on the Commuter rail and cycled to the park all the way from Newburyport through classical new England landscape. For trips further away and which required a car, we normally rented one as a group. For example, the white mountains in New Hampshire, the green mountains in Vermont/Massachusetts or Cape Cod.

Shopping

When I first thought of groceries shopping in the USA I thought of huge Walmart or Costco. The truth, however, looks a bit different, especially in bigger cities. The closest and most convenient shop in Coolidge Corner was Trader Joes. It offers lots of fresh fruits and vegetables as well as typical American products. It reminded me of European supermarkets and as I found out later, it is part of the Aldi group. On the other hand, there was a Stop&Shop in Brookline and that's where I could find long aisles of frozen food and gigantic assortment of sodas – the image closest to what I originally had in mind. In order to maintain a healthy but also not too expensive diet, I would recommend visiting the Haymarket in downtown. Every Saturday this local market offers cheap vegetables and fruits ranging from huge pumpkins to a box full of oranges. Everything in manner of the one-dollar policy most salesmen have on that market. However, it is worth spending closer look before buying because most of the products are on the edge and need to be processed straight away.

Transport

Compared to other cities in the US, Boston has a very good public transport system. Buses and metros run frequently and are not too crowded. They are easily accessible, and they offer monthly passes for frequent users or a Charlie card if you operate them only from time to time. I lived close by, so for my daily commute I could walk to the lab. Also, Boston has a decent bike lane system, but it is necessary to keep an eye out for huge potholes or uber drives pulling up right in front of you. Another way to get around are the shuttle buses offered by masco. They are for employees of the facilities in Longwood and run to numerous destinations throughout the year. Because winter in Boston is rough and cold, I mostly used them to go to Cambridge after work.

Host institution

Our lab was located in the Center of life science which is in the middle of the Longwood medical area. A site with various hospitals and research facilities. I was in the department of surgery transplant of the Beth Israel Deaconess Medical Center (BIDMC). The hospital is affiliated with the Harvard Medical School which is also found in the Longwood area. The medical school appears tremendous with its marble facade and faces a green rectangle park. All this is surrounded by high story hospital buildings and the area offers many food courts, cafeterias, gyms, cafes, etc.

On the other side of Charles river there is the old Harvard university campus in Cambridge. It definitely felt like a more student friendly environment with many events, talks and seminars. In January, when the new semester started, I joined the mountaineering club which was a nice contrast to the daily routine in the lab. There were many undergraduate and graduate students and the clubs highlight was the cabin in the white mountains.

Lab

First, I must say that I was very lucky with my colleagues and with my lab. Eating together every lunch break or accomplishing the spartan race at the Fenway stadium created a wonderful team spirit. I worked with people that were mostly my age and soon I became very good friends with some of my colleagues. We met outside of work to go cycling around Boston or spent Friday evenings in a bar close by. I enjoyed coming into work because of this friendly atmosphere.

When I think of a typical workday, I must admit: There was no such thing as a typical day for me. Due to many separate projects, every day was different, but one thing was for sure – working hours normally were 8-10 hours a day. My first project was a chronological study for which I had to come in every 6 hours over a 24hour period, also contributed to the fact that I felt a little overwhelmed in the beginning. I had to get use to a completely new environment inside as well as outside the lab and I underestimated the impact a 50 hours week has on your life. In addition, I had to learn many new methods and procedures which also taught me an important lesson how to deal with troubleshooting. The hardest part for me, however, was getting used to animal handling. Since I never worked with mice before, it was an additional stress test but after a few weeks it became part of my lab routine. Besides, I had to change my thesis because the topic altered from the original proposal due to the many more new opportunities that were given by the capacities of the lab. But despite all that I was always eager to learn more and in hindsight, the supervision I received was outstanding. My PI as well as my supervisor let me find my own field of interest and always got back to me when I was stuck. It was the perfect environment to investigate and I had the freedom to bring up every aspect I was interested in. Of course, the financial standing of my PI's lab also enabled a lot which would have been not possible in Germany.

Take home message

I can say it has been some challenging but rewarding past months. This research stay gave me the opportunity to maintain and more importantly to enhance my academic English for a prospective career in transboundary research. I was able to acquire excellent skills obtaining privileged expertise with regard to state-of-the-art methods. Boston opened me the unique chance to perform in an energetic environment for scientific medical research and allowed me to attend countless seminars and lectures of world-known scientists. I can now build up on a repertoire of clearly defined methods for the acquisition of more sophisticated research later on. This will encourage me to aim for an individual career in the field of research as well as releasing publications under professional guidance.

Beyond that, it has been a unique chance to work in a vibrant medical research environment like Boston allowing me to participate countless lectures given by world-renowned scientists. The Beth Israel Deaconess Medical Center Laboratory provided me an ideal guidance into the world of scientific research.