

Rise Germany 2018 – Final Report

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Field of Study: Chemistry/Biochemistry

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Three months in Germany may seem like a long time, but when you are working full time in a lab, traveling to a new city every weekend, and meeting new people, it flies by. As a DAAD RISE intern, I spent a summer in Düsseldorf, Germany doing cardiovascular research. Working to validate the interaction partners of Thioredoxin-1, a protein with anti-oxidative and anti-apoptotic functions that is important to the maintenance of the endothelium, I was submerged into a world of new techniques and way of research. I learned new laboratory techniques and their theoretical background including that of immunoprecipitations, western blots, and analysis using mass spectrometry. Always asking about why things were done in a procedure, I gained a thorough understanding of my work from my graduate student mentor, who received his doctorate during my stay, and other doctoral researchers I worked with. In addition, I was struck by the comradery and collaborative nature of my lab. People were always milling in and out of offices, asking each other for help with a procedure or consulting one another about what to do next. Work life balance was a priority and it was evident in the way my lab joked with each other, took care of each other's jobs while people were out on holiday, and talked enthusiastically about their research and their lives outside of lab. My project was an embodiment of this as I worked with a different person almost every week based on their expertise or who was available.

A typical day at the lab really started with preparation from the week before. Since my experiments usually took a minimum of 2 days and were time sensitive, I sat down every week with whoever I was going to work with and my PI or my Lab Manager to talk about my findings, conclusions, and the game plan for next week's experiments. With the schedule set, I came in each day knowing what my central task was. Whether it be transfecting cells, running a gel, or doing an antibody test, I always had something to do as well as have some downtime to record my work in my lab book, do my own personal projects, or chat. As I became used to the techniques, I got called on to help with procedures as well as stopped asking so many questions and instead, answering questions and reasoning out issues myself. This lab shared their resources, time, and enthusiasm for science with me that has made me love research even more.

While the research I have done allowed me to grow tremendously as a scientist, I grew just as much personally from the interactions I've had both inside and outside of my lab. Some of the best conversations I had in the lab were about seemingly banal things, such as how German windows were my new favorite thing, but gave me an intimate look into German culture. I also got to travel to other cities in Germany as well as nearby countries during the weekends. Seeing the sites, eating the local food, and most interestingly, talking to locals and fellow travelers on my trips helped build my understanding of the differences between cultures. Lastly, I was able to talk to other DAAD interns from different parts of the US, Canada, and Ireland who were also in Düsseldorf which exposed me to even more perspectives of every day things as well as more serious topics. We may pronounce things or view things slightly differently, but we connected through a common language of science and our passions. Without a doubt, the things I experienced and the people I met on this internship gave me a fuller appreciation of the vast similarities and differences between cultures and their people.

I never imagined I would have the chance to do research and live in a foreign country, but it is a chance I am thankful to have received and will never forget. I have learned so much through my research and about other cultures, but especially Germany's which I will always be fond of now. This DAAD RISE internship has given me more than I ever could have asked for and a fuller understanding of my place as a person in a global community and especially, in the global community of science.

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