

2012 DAAD RISEpro : ProQinase

Freiburg, Justin G. Mathew Germany

In north Philadelphia, I was born and raised, in the laboratory I spent most of my days. Culturing, harvesting and isolating proteins, trying to find a cure to diabetes.

Then a couple of guys came back from Shanghai, said I should do the same before I'm outta of time.

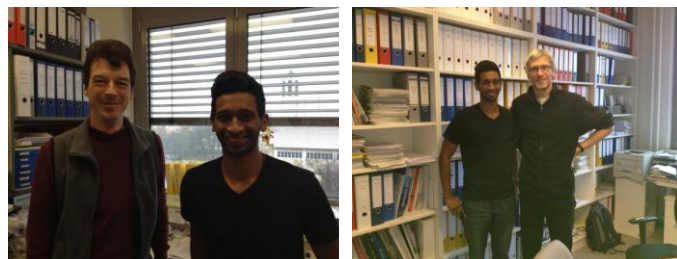
I decided to RISE and a few days later, Martina said 'you're moving to Germany and might need a translator'.

I told my parents that the opportunity was rare, the stipend was good and the airfare was fair. Before I knew it my suitcase was there and my family was waving 'o son do take care'.

I pulled to a house late afternoon and yelled at the cabby hey man 'danke schön'.

*I looked at my kingdom I was finally here.
In the south side of Germany, for about half a year.*

2 years into my PhD at Drexel University I was making good progress towards my thesis. After the first chapter was nearly complete I suffered from what many have experienced as researchers block. I was not sure which direction I should go from here. I decided to clear my head and look at the problem from a different perspective. My research is focused on the causes of reduced angiogenesis in diabetic patients, specifically the proteins involved. I decided to take a huge gamble and invest 6 months in Germany in a cancer research company, hoping that I would learn something that would help me in my own research. Cancer and diabetes are related in more ways than not when it comes to angiogenesis. Over 6 months, I was neck deep in cancer research and gained tremendous insight about new ideas to explore in diabetes research when I returned to Philadelphia.



Working with Dr. Daniel Müller and Dr. Michael Kubbutat at ProQinase was a phenomenal experience.

ProQinase was a most enjoyable setting; with a laid back atmosphere and flexible hours I was able to complete the entire research plan outlined by the program. My research at the company was primarily concerned with developing a large scale method to express p38- α , β , δ , γ proteins in the purist and highest concentrations. This project was divided into four main areas. I first had to create the protein plasmids, then efficiently express them in E.coli, which was then purified with GST and 3C cleavage techniques, and finally I determined the activity of the protein with an upstream kinase, MKK6. I was able to learn techniques I would have never been able to in my home university. Aside from the research, I genuinely appreciated how seriously lunch was taken at the company. As we sat along a long table, with elbows of CEO and interns touching we discussed various things from politics to the best place to grab a beer. It was a sobering reminder that every one's role in the company is equally important, and it is essential that no one feel intimidated because then progress is limited.

My stay in Germany was not merely a scientific expedition, but included personal growth and development both socially and politically. I was able to interact with students from all over the world. America is known for being a land of many nations, but here, in this international

house filled with Muslims, Greeks, Jewish, Spanish and Asians, this was truly a land of many nations. I was able to learn a great deal about world history, realize prejudices inane in countries and see how my friends are able to discard them and treat everyone as an equal. It was especially moving when the new president elect of Egypt was put into place, seeing hope in my friend's face. Likewise I was able to truly sympathize in the battle between Gaza and Israel with my Israeli friend. Being able to relate to world events is the most profound thing I will take away from my trip to Germany.

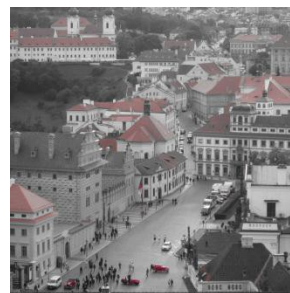
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Justin G. Mathew

Freiburg, Germany



(left) A view from the Freiburg Munster Bell Tower overlooking the city during Christmas.
(right) Kazakh-French fusion dinner with friends in Freiburg.



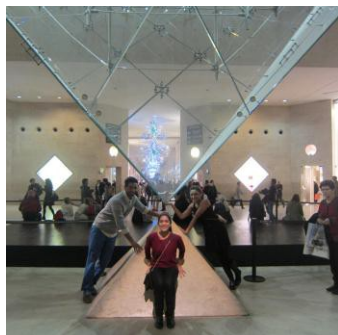
(left) The London 2012 Olympics. (right) A picturesque view of Prague from the Pražský hrad.



(left) Van Gogh Museum in the Netherlands. (right) The Arc de Triomphe in Paris.



(left) Sticking gum on the Berlin Wall! (right) Walking past Tacheles, an abandoned building used by artists from all around the world to work on their art, in Berlin.



I was able to share this experience with my friends from Philadelphia when they came to visit me.
(left) A visit to the Louvre in Paris. (right) Oktoberfest in Munich!

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Germany has been a great host country to me, providing me with invaluable knowledge and exposing me to a rich traditional background from the flohmarkt to the Weihnachtsmarkts. Through Germany I was able to visit France, Netherlands, the United Kingdom and the Czech Republic as well as major cities throughout Germany. When I first arrived in Germany my mentality was that this is a once in a life time opportunity, I should take advantage of it and enjoy every moment. However, as the weeks passed, I realized this wasn't true. This really wasn't a once in a life time opportunity. It was a gate way opportunity; it was an opportunity that opened my horizons to the other side of the world that I truly cannot wait to explore in the coming years.