

AUSTRIAN MARSHALL PLAN FOUNDATION

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Field Report of the stay at Massachusetts Institute of Technology

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I spent my last year at Massachusetts Institute of Technology, in the lab of Prof Matthew Vander Heiden who is one of the most well-known pioneers of cancer metabolism field. Matt and his lab members have been very welcoming to me from beginning to the end of my stay and they were extremely friendly and approachable, which is not an attitude we usually expect from scientist that reached to this much success and fame. However, Matt had a mindset of a soccer coach that tries to extract the best out of each and every player he has. His first goal seemed to train and educate young scientists which also spread out into personalities of his lab members. During my time at MIT, I felt comfortable and integrated into the lab and this helped me learn the most from them and to improve myself as an independent scientist. Although I mostly continued my own PhD project in Matt's lab, with the new perspectives I learned from him and his colleagues, I started feeling as if I was working on a brand new project. Apart from the new perspectives regarding cancer metabolism field, I also learned plenty about science in general. I was lucky to be involved in their intensive scientific discussions where they try to improve the quality of each other's research. Their views on how to ask the right and most relevant research question, how to design the best possible experiment and how to interpret the results most carefully had and will have a significant impact on what kind of scientist I will be after finishing PhD. In addition, I really enjoyed their attitude when they happen to disagree with each other's hypothesis while appreciating the value of the discussions involving opposite opinions to improve the work. After this experience, I realized it was no surprise that Matt Vander Heiden has performed several important research over the years that shaped the field of cancer metabolism.

In addition to the quality of the research personalities, the institute embodies several high quality techniques to make science easier. Within one building (Koch Institute of Integrative Cancer Research), one could have access to almost every technique imaginable, some of which are administrated by core facilities. Among those; histology facility, flow cytometry facility and animal facility were particularly very useful for me. These facilities not only provide access to the desired device, method or material after an appropriate training, but also apply some

services for researches in exchange of a small fee. For instance, one could sign up for a technician to run their flow cytometry experiment within the core facility, send paraffin block to have it stained with specific antibodies in the histology core facility or get a trained veterinarian to administer a drug to an experimental animal. These facilities help scientists to delegate some of their routine work and focus on experiments that would require their own specialized expertise. In addition to the core facilities, there are very distinguished labs within very close proximity that are specialized on various model organisms or techniques. Overall, these possibilities allow young scientist to design their projects with a limitless imagination.

Although MIT does not require my advertisement, I strongly recommend future students to visit Boston at least for a semester if they have a chance. It took me a while to understand where I was, but when I realized I am in a city with tens of Nobel Prize winners and with extremely distinguished scientists, I tried to meet as much people as possible to increase my network. Thanks to this stay, I now have contacts with many amazing scientists. In Boston, there are always plenty of seminars, small conferences where many famous scientists join from all over the world. This gave me an incredible chance to learn about variety of interesting work as well as the possibility to meet with these scientists. I would recommend future students to keep attending such meetings, ask questions and try to meet with the investigators whenever they have the chance.

On the other hand, I do need to acknowledge that without Marshall Plan fellowship, my research stay may not have been as pleasant because accommodations in Boston is very expensive. Students living in Boston have to spend at least twice as much for rent compared to many other places in the United States except for New York, Los Angeles or San Francisco. Students going to any of these cities should keep this in mind and be very thorough with their apartment search. Nevertheless, Austrian Marshall Plan Foundation allowed me to focus on my research in MIT. Having this fellowship also gave me a certain prestige for my job applications and helped me to get an offer from Harvard for a postdoc position. Therefore I would recommend future students to include this information in their resume.