



Master's internship at the Elston and Dohlman labs at UNC, Chapel Hill

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Eight months ago, I travelled to Chapel Hill to perform research at the Department of Pharmacology at the University of North Carolina (UNC). Here, I joined the Elston and the Dohlman labs to investigate a MAPK signalling pathway in yeast. This knowledge can be used to understand homologous human signalling pathways in the long run. Joining two collaborative labs with different expertise gave me the chance to combine two approaches in one internship: mathematical modelling and experiments. Through the creation of a mathematical model of the pathway, I was able to make predictions that would have never been made with experimental approaches alone.

My welcome in the US was warm. While everyone worked very independently, people were always open to share their knowledge, have a good discussion and help me outside of work. I was given the opportunity to set up a microscopy pipeline, to image and analyse many cells at once, on my own and I learned to make mathematical models from scratch. Unfortunately, my stay came to an early end because of COVID-19. My lab closed and the situation in the US started becoming worse, so I returned to The Netherlands. Nevertheless, I was luckily able to continue building my model from afar, and have been able to finish my internship with some interesting model predictions that can hopefully be tested experimentally soon. Within the past four months, I got very familiar with meetings over Zoom, including our usual lab meeting that I attended at 9 PM every Monday evening. Even with six hours time difference, I still very much felt part of the labs.

Even though this internship did thus not go entirely as planned, I am very happy to have been to the US and to have worked on this project. Not only did it teach me a lot of practical skills, I also learned to work in a completely different work environment, with people from different backgrounds and to communicate well over a long distance. Moreover, living in Chapel Hill was a great experience. In this typical American college town, I got to experience the craziness of attending a basketball game by the university team, I learned about the traditions of UNC students, I experienced Southern hospitality, and the beautiful campus started feeling like home. Soon I met a group of international students with whom we had game nights, made a spring break trip to Atlanta and the Blue Ridge Mountains, and discovered the surroundings of Chapel Hill.

Overall, I am thus incredibly grateful for the experiences, people, knowledge and personal growth that this trip has given me, and I would like to thank the Nora Baart Foundation for making all of this possible!

