



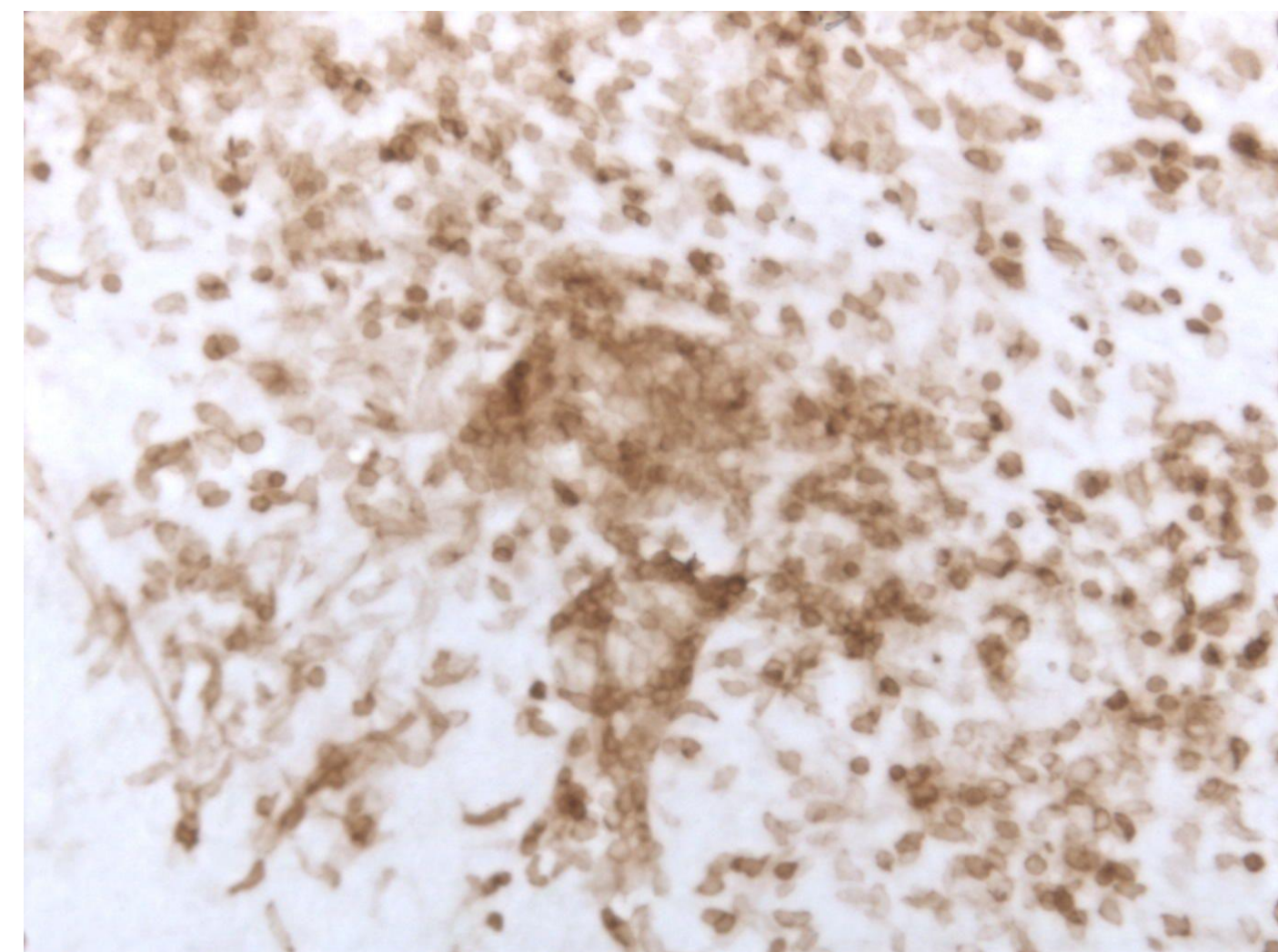
CX3CR1 and Its Impact on Multiple Sclerosis

Carolina Zuniga, Biology, 2022

Intellectual
Achievement

SUMMARY

During the fall 2019 semester, I worked in Dr. Astrid Cardona's research lab. The lab focuses on the different variants of the CX3CR1 receptor, its ligand fractalkine (FKN), and how it affects the severity of multiple sclerosis (MS). Embarking on this experience, I wanted to have an in-depth view on what working in a lab was like. I also wanted to be able to apply my knowledge from my classes in the real world. Further, I wanted to be sure that my degree was what I really wanted to pursue to be prepared for a future career. The end goal of the experiments in the lab is to improve the lives of those with MS. My tasks in lab were heavily focused on repeating a previous experiment that was done in the lab in order to further validate the results with the increased sample size and data.



SPICES

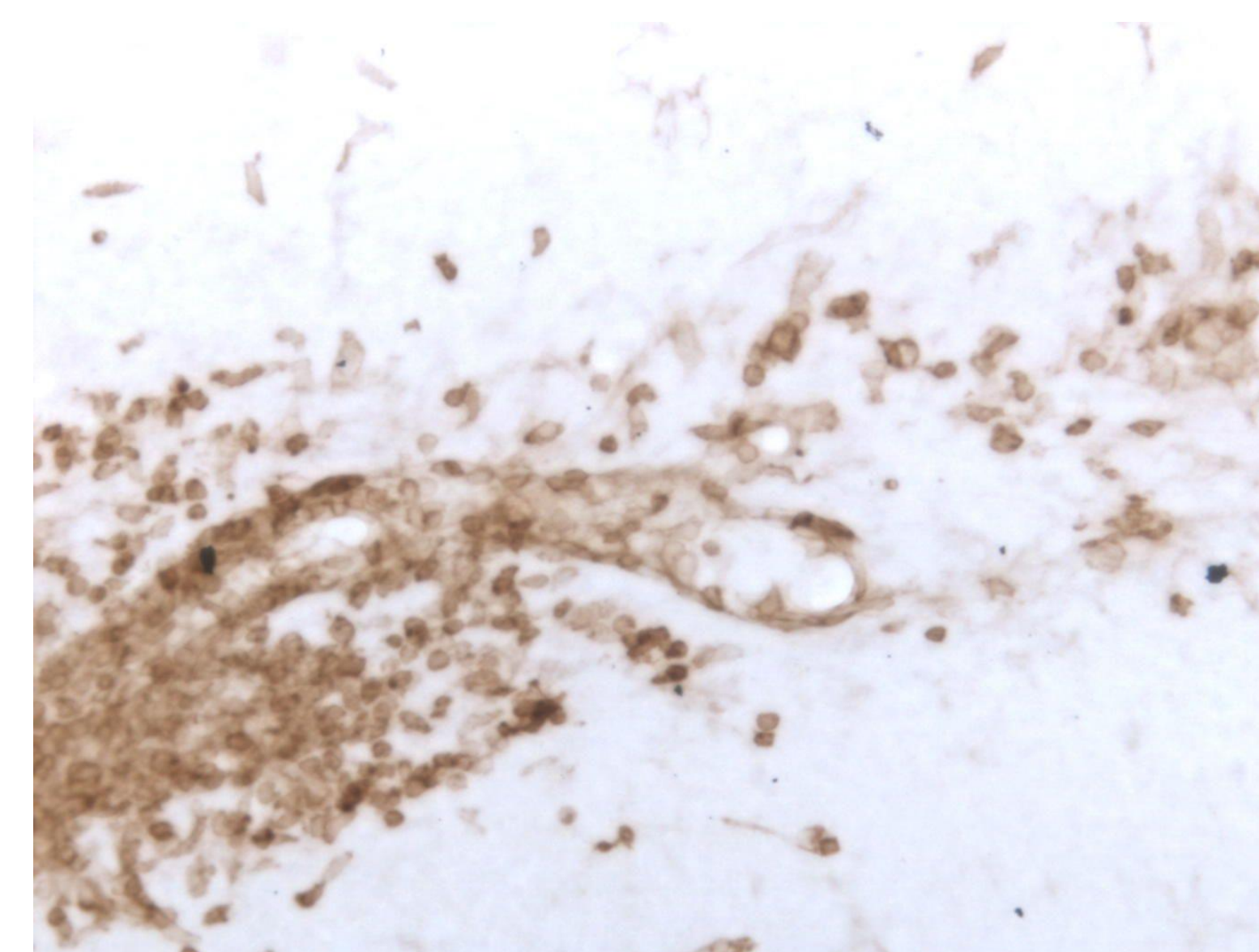
This experience fulfills the intellectual achievement category. Doing research as an undergrad requires that students apply all the knowledge that has been learned in previous courses and to learn new concepts in order to understand what is being done in the lab.

HERBS

Benevolence and support were the most relevant HERBS during my experience. Benevolence was practiced with the mice and support was given to other lab mates for their own projects.

LEARNING OUTCOMES

During my experience, one of the learning outcomes it embodied was intellectual dexterity. I had to teach myself the basics of immunology in order to understand what each procedure accomplished. Another outcome was adaptability and resilience. Lab work is not perfect, and if something unexpected happened, I had to adjust and think of the best solution. Lastly, the experience embodied agency through accomplishment. There was nothing better than working hard and having the experiment be a success.



IMPACT

This experience was my first view into what working in a lab was like. Before, I was only familiar with the product of lab and not what went into publishing a paper. After this experience, I was sure that I wanted to continue being in the lab for the rest of college. Being able to apply my knowledge aided me in developing a new way of thinking, and I learned that mistakes were apart of the process. I was able to help and move forward projects that benefited those working in the lab and people with MS who could potentially have their quality of life increased from the studies we are doing.

ADVICE

I advise people to start early! Many wait until their senior year to reach out to professors to work in a lab because they are worried they do not have enough knowledge. The professors want to teach you and are there to fill in knowledge gaps.