



Neurobiology of Nausea and Starvation
Nia Ebrahim (CO, 2018)
Advisor: Bart De Jonghe

This summer I have been working in a nutritional neuroscience lab under the mentorship of the principal investigator, Dr. Bart De Jonghe and other members of the lab. The goal of our project is to better understand the neural pathway of cisplatin induced nausea and energy dysregulation. Cisplatin is a drug used in chemotherapy that causes nausea and vomiting in almost all patients who receive it. With cancer rates on the rise, and because cisplatin is a common chemotherapeutic that causes severe side effects in almost all of its patients, it becomes increasingly important to conduct research that aims to better understand these side effects and eventually prevent them.

A lot of my work in the lab involves working with mice and rats, cutting brains and collecting sections from relevant brain areas, running immunohistochemistry experiments, as well as processing tissue for PCR analysis. I learned how to use a cryostat, which is used to cut brains, and identify areas of the brain by looking at cross sections of mouse and rat brains. I also became comfortable running procedures I learned about in previous biology classes such as RNA extraction, reverse transcription, and PCR. The most exciting part of the summer has been learning more about the field from my PI in lab meetings, and the people I interacted with every day in the lab.

As a biology and nutrition major, I couldn't have been placed in a better lab. Before becoming a member of Dr. De Jonghe's lab, I didn't think a nutritional neuroscience lab existed. Getting hands-on experience in a new field that combines both of my academic interests contributes a unique dimension to my educational experience. In the lab, I am actively learning and implementing topics I read about in my textbooks. I also feel a greater sense of responsibility and control over my education as I help contribute new knowledge in these fields. I am thankful for PURM, Dr. De Jonghe, and other members who have allowed me to have such a great experience this summer.