

Fall 2017

My research this semester was centered on the isolation of cyanobacteriophages. A bacteriophage refers to a virus that infects bacteria, and a cyanobacteriophage refers to a virus that specifically infects photosynthetic, aquatic bacteria. Though the project's original goal of isolation was not met, valuable information resulted. We successfully developed and refined a new protocol for growing the cyanobacterial strains and their growth media (nutrient-rich broth).

Spring 2017

While the fall semester provided me with a good basis for research techniques, I needed to have an individual project to work on until graduation. I wanted to learn more techniques in molecular genetics, so I am choosing to work with an Anabaena transposon. Anabaena is a genus of cyanobacteria. A transposon is a gene that randomly inserts itself into another organism's genome. Upon insertion into a gene, the transposon causes loss of function of said gene. This is a very valuable technique for determining the functions of various genes, as a loss of function indicates the involvement of said gene. Dr. Cozy had started to develop a novel transposon for Anabaena. My project next semester will consist of refining the transposon to get it to work, which will involve the consideration of many variables. Should this work, I will be conducting studies regarding gene function as described above.