Goal 1.2

Reflection

Most of my work done at Longwood contains research and presentations involved with cell biology. Courses like genetics, cell biology, and microbiology prepare students to better understand, analyze, and apply the major principles of cell and molecular biology within specific topics. I was able to present my topic during the Longwood symposium and student showcase for many semesters.

After my introduction class 120, I was then able to take introduction to genetics 250. In this course, my lab partner and I did a semester-long research project. This project involved investigating the diversity of microbes on a surface from Buffalo Creek and Appomattox River. We conducted genomic DNA extraction, PCR and Gel electrophoresis, DNA sequencing and BLAST analysis. We found that the most common strand found was *Bacillus megaterium*. This was the start of my journey with PCR/Gel electrophoresis and DNA sequencing. Like any normal biology course at Longwood, I had to present my research with a poster at the spring student showcase. This was my first presentation and it made me realize my passion for presenting and relaying information. I have since become an avid speaker and presenter in class and during showcases.

As a junior, I was able to take cell biology. I was slightly intimidated by the nuance that surrounded this course. I was never heavily interested in cells which is interesting since biology is my major. However, in this class, I was able to further my skills and write many papers including mini-history papers. One of my favorite papers I wrote in cell biology was the history of transmembrane proteins. After writing this paper I was not apprehensive about taking on the dawning task of writing in a scientific manner. After receiving praise for my paper I realized I

could analyze and apply major principles of cell biology. This course included semester-long research on flocculation. We performed PCR, purification/Gel electrophoresis, DNA sequencing, and multiple sequence alignment. We had an interesting conclusion that K97 might have an effect on the secondary structure of the protein with an amino acid change. I believe I made a notable difference in my presentation skills from sophomore to junior year.

Overall I have made great progress in my years at Longwood in all my courses. I am comfortable analyzing and applying the major principles of cell and molecular biology. I know my future courses and career will benefit from my development from classes such as genetics, cell biology, and microbiology.