Caroline Foley

Undergraduate Craft of Research
Supplementary Essay

I would like to acknowledge the librarian staff at Phillips Memorial Library for their helpful assistance throughout this research project. I began this work as part of a class project in my Biochemistry Lab course. In this class, although all of the students conducted research with the same end goal, each of us chose different mutants to investigate, and consequently, we all encountered unique successes and roadblocks throughout our research. Each member of the class wrote a scientific article, in the format of a *Journal of Biological Chemistry (JBC)* article, to present our class’s findings. Without the help of the librarian staff, it would have been especially difficult to locate references for these papers and for the various experimental procedures my class followed throughout the semester.

In particular, I would like to thank Peter Rogers, Head of Research at Phillips Memorial, for his helpful insight and for meeting with my class. Peter taught us how to search for sources in a more specific way that would not generate an overwhelming excess of articles. Prior to meeting with Peter, I had always used Google Scholar to search for sources. Using this search engine, I was accustomed to shifting through many webpages before finding appropriate articles. Following Peter’s guidance, for this project, I found my sources via the library’s website. I first used the World Cat Discovery search bar to look for articles. Using this tool, I narrowed down my search by adjusting the filters, as well as by using the Advanced Search option to select specific databases. In addition to using this search tool, I used the Research Guides link on the library’s website to identify databases by subject. In particular, Peter suggested using the Medline/EBSCO database under Biology and the Life Sciences. In my research, Medline was one of the most helpful resources I used. I found many articles in this way including those by
Langereis et al., Supuran et al., and Hoffman et al.

Although the Hoffman et al. paper was given to my class by our instructor to serve as the inspiration for this project, we were only given a print copy. Medline referred us to the online copy on ScienceDirect. Although I was somewhat familiar with ScienceDirect (because of my Google Scholar searches), Peter showed me how to access supplemental information on ScienceDirect. This provided me with important information from Hoffman et al. regarding the optimal distances between histidine residues for binding to a nickel column, which I needed in order to design a mutation to investigate. Additionally, I was also able to look at a list of Hoffman et al.’s references on ScienceDirect and easily follow links to access papers they cited, as well as related ones. I am grateful that the library pays for articles downloaded from ScienceDirect. Many of my sources came from this service.

In addition to helping us locate articles, Peter taught my class about formatting our papers using the publishing tool Overleaf. He referred us to helpful pages on LaTeX, a system utilizing programming language, which is used in Overleaf formatting and answered many of our questions regarding this template. Despite this, as an inexperienced user, I decided to format my paper using Word. I located JBC articles online in order to have examples of the correct formatting. However, since I plan on attending graduate school in Chemistry, I am interested in becoming more familiar with Overleaf and using it in the future.

Overall, I am very appreciative of the resources that Providence College and Phillips Memorial offer to students. As a science major, I have had to locate many scientific articles, in order to conduct research and complete assigned projects. The librarian workers are always extremely helpful. I have called them from home, texted them, and had many helpful conservations with them. I am happy with how my article for this project came out and greatly acknowledge the librarian staff for their assistance throughout this project.