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When I started this project, I was assigned a bacterial species and had to find an article with published microarray data, but other than that the project was completely open. I chose my article for the microarray data, knowing absolutely nothing about my bacterial species, chemical oxidative stress, or the specific gene groups mentioned in the Chang et al. (2005) article so before I could look at or analyze the data, I had to thoroughly research *P. aeruginosa*, oxidative stress, and the results of the article so I would know what to look for and what I was finding upon analyzing the data. While I found some explanations of terms or ideas on internet websites, my main source of information was journal articles published in reputable chemistry, biochemistry, and biology journals. I started my search for relevant articles by looking through the bibliography of the Chang et al. (2005) article. I read those articles and then looked further into articles that they had cited for relevant information. This required filtering through a lot of article abstracts. Research databases like ScienceDirect were really helpful because the search results provided me with a long list of articles that I could sort by relevance and preview without having to download.

After I was well versed on *P. aeruginosa* and the pathways and genes mentioned in Chang et al. (2005), I ran their data through my database and analyzed it for myself. When I found the most significantly affected gene groups, I started researching the role of those genes in *P. aeruginosa* as well as other articles discussing the effects of oxidative stress on bacterial species so I would have more results to compare my own to. Because I wanted to find new articles that had researched the effects of oxidative stress independently from Chang et al. (2005), I used the LMU library research databases. I thought I would only find articles like Chang et al. (2005) that looked at specific gene groups, but I was lucky enough to find the Palma et al. (2004) article, which published the results of a full transcriptome analysis of the effects of oxidative stress on *P. aeruginosa*. I was able to compare my results to the results published in this article and make some sense of some confusing results. I found ScienceDirect to be the most helpful research database, but I also used Google Scholar to find articles elsewhere on the internet. Luckily, all the articles I needed were either publically available or I was able to

obtain them through the LMU library website.

The library resources available were incredibly important to my research for this project. In doing research for a science project it is vital to have access to large database of research articles as it is always helpful to compare published results of similar experiments to one's own results in analyzing data. Through the library I was able to more easily search for and access articles relevant to my research, many of which I would have had to pay for without library access. I plan on going into medicine, a field which pretty much requires the ability to be able to search for and research colleague's articles in order to best help patients or further your own research. This research experience definitely furthered by abilities to be able to do this and it is a skill I am certain I will use for the rest of my career.