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Reflective Essay

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Most people remember their first childhood story to be “The Very Hungry Caterpillar” or “The Rainbow Fish”, popular children’s books that teach virtues such as patience or the importance of being yourself. But as the young aspiring physician I was, the one that made the biggest impression on my mind was a book called “Mallory’s 65 Roses”. The short story detailed the life of an energetic little girl named Mallory afflicted with cystic fibrosis, explaining her condition and its ramifications. But instead of the usual conclusive ending that children’s books provide, this story concluded with an open-ended ending that said scientists were still looking to find a cure for CF.

I had long forgotten about this book until the topic of cystic fibrosis was reintroduced during our joint BIOL 200 class. As our discussions about the disease progressed, it caused me to think back to “Mallory’s 65 Roses” and explore what kind of cystic fibrosis treatments exist today.

Thus, my preliminary search began on search engines such as Google and Bing to find what kind of treatments were popularized today. While I found lots of information on antibiotics and other medications, a more recently popularized experimental treatment, gene therapy, caught my eye. There were many polarized articles either in strong support or adversity against CF gene therapy, leading me to wonder what kind of benefits CF gene therapy provides over antibiotics/medication. Interested to learn more about the pros and cons of gene therapy, I decided to center my research paper around the question “Is gene therapy an effective treatment for cystic fibrosis?”.

My ENGL299 instructor suggested that we use the UW Libraries research database, leading me to begin my search there. Unsure about exactly where to start, I decided to simply search up the phrase “cystic fibrosis gene therapy treatment” to see what kind of results popped up. The database provided me with a whopping 30,000 resources, making me realize I needed to narrow down my search. Additionally, as I did a quick skim of the first few pages of resources, I ran into two other issues. First off, though almost all of the resources that popped up were related to gene therapy, quite a few of them were treatments for illnesses such as cancer, leukemia, and hemophilia, which was irrelevant to the CF gene therapy I was exploring. Many of the sources delved into the ethical concerns surrounding gene therapy as well, which I was not interested in researching. Second, many of the sources used sophisticated medical terminology which I was not well-versed in, making me realize that I needed to do more reading on the cause of cystic fibrosis and definitions of CF vocabulary.

Realizing I needed to change my approach, I consulted the help of an OWRC tutor. During my session, the tutor advised me to take advantage of the keyword exclusion feature in the UW Libraries search. I created specialized searches to include keywords “cystic fibrosis” and “gene therapy” and exclude keywords such as “cancer”, “hemophilia”, “ethics”, and “ethical concerns”. This took care of my first problem and vastly narrowed down my search count to approximately 15,000. To address my second concern, I decided to employ this specialized keyword search to split up my acquisition of sources into different categories. Because I knew that gene therapy treatment was still in its preliminary stages, I knew I wanted to look for clinical trials and research journal publications where I could find quantitative evidence regarding therapy results. To provide me with the fundamental knowledge on CF causes, I knew I also wanted some sort of video or visual source that depicted exactly how mutations at

the molecular level occurred to cause CF. At this point, I solidified that I wanted to write an argumentative paper and hence wanted to find science articles and publications discussing antibiotics and other cystic fibrosis medications compared to gene therapy.

Having outlined these three categories of sources I wanted to tackle, I was able to conduct three groups of searches, first adding on keywords such as “clinical trials”, then switching it out with “origin of cystic fibrosis”, then “cystic fibrosis antibiotics” and “medication”. I was also able to use the Material Type and Start Date filters in the Advanced Search to ensure I was only getting relevant, recently published sources of the source type that I desired. These filters blocked out all the sources from the 1980s to early 1990s that were too outdated to be relevant my research paper.

While I faced notable challenges during this initial source gathering process, this experience taught me how to effectively outline and conduct my research process in a manner that provided me a strong basis to build my argumentative paper off of. As this was my first time writing a scientific research paper, I learned what type of sources were most beneficial for finding quantitative evidence to support my stance versus helping me explain complicated medical concepts/background information in simpler terms for my audience. Through the research process for my topic, I learned the importance of applying filters and including/excluding keywords to narrow down a possibly overwhelmingly large pool of resources into a more manageable pool.

Beyond my growth academically, the knowledge I’ve gained from writing this research paper gives me hope that I will be able to help develop gene therapy as a more viable, accessible

treatment for young girls like Mallory. As an aspiring physician, I'm encouraged to continue learning more about a plethora of genetic diseases and illnesses such as cystic fibrosis that can help provide a more conclusive and definitive answer to stories such as "Mallory's 65 Roses".

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