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When I first interviewed with the Great Neck Breast Cancer Coalition, I had a very limited view of science, and the very different careers that made it up. I knew for an absolute certainty that I was not going into the medical field, so I saw the rest of my future in a science career wearing goggles and staining different bacteria samples. Through GNbcc internship however, that was completely changed for the better. I received an 8-week internship at the Columbia University Mailman School of Public Health with Dr. Mary Beth Terry.

Dr. Mary Beth Terry and her team are currently working on an intervention study called the UOI study. An intervention study is when researchers actively limit the amount of a certain factor that their cohorts are exposed to. In this study, they will

be looking to limit the amount of xenoestrogens that women and their daughters are exposed to in their everyday lives.

Xenoestrogens are foreign substances that mimic the function of estrogen, which is a female hormone necessary for puberty, development, and pregnancy. Xenoestrogens, through their molecular similarity to estrogen, can interfere with the body's natural hormonal activities and potentially lead to reproductive harm and breast cancer. Xenoestrogens are present in the environment and even in skincare products. To limit their concentration, 30 women and daughter pairs will be given cleaning product and cosmetics that are void of xenoestrogens and air filters. They will also be given certain educational materials to warn them about the dangers of xenoestrogens and how to avoid them; one such material is a video directed to

the teenage members of the cohort that I was given the opportunity to create.

In the video, I addressed mostly xenoestrogens in found in cosmetics and beauty products, specifically parabens, phthalates, triclosan, and oxybenzone. All four of these have been linked to hormonal disruption and breast cancer cell proliferation in humans and infertility in male rats. Oxybenzone has also been found to cause DNA damage in fish and bleaching in corals; as a result, it has now been banned from resorts in Hawaii and other maritime areas. As a part of the video, I included many resources, such as websites and apps that help consumers select safer beauty products. For example, one app is Think Dirty, which lists certain cosmetic brands that they verify as “safe”. Other websites, such as the Environmental Working Group (EWG), have a database of cosmetic products

that they have analyzed on a scale of 1 to 10 in terms of safety with 1 being the least hazardous and 10 being the most.

In addition to the UOI Intervention Study, I also worked on follow-up materials for other studies, such as the on-going LEGACY Girls Study, is a five-year cohort study following 1040 girls, half of which have a breast cancer family history. They are contacted every six months for information on progression of growth and development, diet and lifestyle factors. The team, with whom I worked, was also willing to allow me to undertake different activities.

Through my internship, I worked on other essential skills. Every Friday, the other internees and I met to deeply examine and analyze journal articles. My mentor also introduced a method for me to keep track of my short-term and long-term goals, along with a list of ways to accomplish them, known as

an Individual Development Plan (IDP). I also had the honor to review material made by Columbia employees that they had made to educate specifically high school children in various areas of public and personal health. I also worked for a day with certain employees who did fieldwork, which is when they go outside the boundaries of the campus and nearby hospital into civilian communities to collect surveys.

As a result of my internship, I was introduced to a wide variety of careers in public health, which opened my eyes to the different options that could be potentially available to me in the next few years.