

Kiana Kerr

GNBCC Internship Attended: UMASS Amherst/Laura Vandenberg, Ph.D Laboratory

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The summer internship program was truly a one-of-a-kind experience for me. Great Neck Breast Cancer Coalition provided me with an opportunity to flourish both intellectually and socially. For the month of July, I conducted research at the University of Massachusetts: Amherst, with Dr. Laura Vandenberg in the department of Environmental Health Sciences. I could not have dreamed of a better mentor than Dr. Vandenberg; she was incredibly intelligent, patient, and supportive throughout the entire experience.

My lab mate and roommate, Selena, and I did a lot of research about the work being conducted in the lab. I learned about concepts that I had never even heard of before. The undergraduate students and Dr. Vandenberg showed us different procedures and how to operate different equipment. The other lab members taught me the process of “bagging”. It is much harder than it looks, and requires one to pour a certain amount of methyl salicylate into a bag and then place the mammary gland into the bag. One has to be sure to seal the bag properly and ensure that as little liquid spills out. Additionally, I learned how to properly capture photos and take measurements on these photos. With the microscope, one can really see all the different parts of the mammary gland, which makes it easier to learn about it. I learned all about mammary glands and how vital they are to mice, rats and human beings. I learned what an endocrine disrupting chemical (EDC) was

and how it can affect the body. We learned the importance of low dose studies. Certain EDCs can replicate chemicals in the body and therefore disrupts homeostasis. This is quite dangerous as it can lead to tumors in multiple areas of the body and cause other health complications. The difficult aspect of research is the many trials one must go through to have statistically significant data. With a limited sample size, our data is not statistically significant but it certainly shows some interesting trends. The research conducted in the Vandenberg lab is truly fascinating because of its direct applications to human life. Dr. Vandenberg conducts low-dose studies of EDCs; these are often levels of chemical exposure that humans experience. As a result, data gathered from these animals can apply to the same organs/glands in the human body.

Socially, I had fantastic experiences as well. It was great to have a taste of college life before I actually attend college. We were lucky enough to be housed in the Honors dorms which were air-conditioned. There were also other programs going on directly through the university. I met students in the UMass Amherst Science Research Intensive Program as well as students who were taking classes in various subjects. This really enhanced my experience because I was introduced to various people that had an array of interests. During my lunch hour, I would often meet up with my new friends and eat with them. The residential advisors were planning new activities for us every single night. When new people moved into the dorms for their program, there was an ice cream social. There was a curfew for weekdays and weeknights, but I had a lot of freedom to make my own decisions which was fantastic. I learned how to manage my time between doing

research on the lab I was in and previous papers Dr. Vandenberg had written and playing cards in the lounge.

This was an invaluable experience. With this experience, Great Neck Breast Cancer Coalition really helped me realize that I want to continue conducting research throughout college. The month of July was enriching, fun and enlightening. I learned more about myself and my interests as well as the types of people I want to surround myself with. Environmental Health Sciences is an extremely important field when it comes to cancer research and I hope to continue learning more about this field and problems within it. This experience has certainly made me more aware of the products that I use daily. I would purchase plastic bottles as long as they said BPA-free on them, but knowing that the alternative EDC is just as harmful, I look for steel water bottles. I have told so many of my friends and family about what I have learned at my time in the lab and have encouraged them to stay away from certain products and foods. I am eternally grateful to GNBCC, Laura Weinberg, and Lisa Levine because they have made a true impact on my future.