Dr. Norma A. Alcantar: STEM Pioneer

For most of history, humans have lived in a patriarchal society in which women were often perceived as merely objects used for cooking, cleaning, and taking care of children. Some famous writers, like the Bronte sisters and J.K. Rowling went as far as to use male pen names, simply to get their books published. Similarly, curious young females who wanted to pursue careers in STEM were denied education and the ability to express these ideas. It was only around the late 19th century that women were able to pursue their dreams. Today, women like Dr. Norma A. Alcantar help shape the world we live in and continue to inspire younger generations to help make society a better place.

Norma A. Alcantar was born and raised in Mexico before coming to the University of California, Santa Barbara, for her graduate and postgraduate studies. She must have felt like a lonely orphan living in America, especially through the grueling years of college. In 2003, after finishing her Ph.D., she became a professor of chemical, biomedical and materials engineering at the University of South Florida. Dr. Alcantar is highly acclaimed for her discoveries in using plant-based technology to decontaminate water and has over forty-four peer-reviewed publications.

Like her, I too am interested in water-related discoveries. For the past two years, I have enthusiastically participated in the local science fair. Through my scientific research, I discovered that microplastics may cause the melting rate of sea ice to increase. Additionally, microplastics have the potential to biomagnify like a tumor throughout the food chain. This can eventually increase the risk of cancer in humans. Although I did not know about her when I first started my research, she inspires me to continue. If I were ever given the opportunity, I would

ask her how she managed to stay focused and inquisitive despite the many lingering distractions and obstacles.

The scientific future looks bright, in part due to her inspiring discoveries and inventions. Dr. Alcantar has ten patents, some of which may aid in finding a cure for Alzheimer's and cancer. Inspired by her example, I wanted to make peoples' lives better, so for the local inventor's fair, I designed a biodegradable water-purifying filter to reduce the amount of microplastics and E. coli in water. It can be easily produced in many third-world countries for little to no cost. Hopefully, one day, the contributions of many women in science will change the world- one invention at a time.

We, as a people, as Floridians, as women, can find great wisdom in following Dr. Alcantar's influence. Her story inspires me to continue down a similar road of knowledge and gives me hope that our paths will cross one day. Hopefully, her story inspires you to find your passion, reflect on your past, but most importantly, to make a difference in the lives of others around the world. That is a life well-lived and worthy of recognition as a STEM pioneer.

Word Count: 500