

I knew I wanted to explore the development and evolution of plants by pursuing a career in research three years ago. This was the moment I found out that research was a career choice. My innate curiosity and the aspiration to be successful helped fuel the passion and drive to pursue this dream.

At the heart of my desire to research plant evolution is an intrinsic fascination with plant form. Since childhood, I have spent countless days immersed in nature, recording plant form through drawing and painting. It seemed as though I was predestined to pursue art. It is only when looking back that I realized what brought me outside with notebook in hand was questions that came with the careful observations, plants seemed so mysterious to me, their patterns fueling my imagination. Very early, I became fascinated by the concept of evolution, and it was in the context of evolution that my thoughts often centered on the idea that an organism's form is the visual representation of eons of struggle and survival; it is this concept that will forever be at the center of my scientific interest.

When I started my undergraduate studies, I did not think I was going to major in biology, I wasn't even particularly aiming for a degree. I was driven by the thrill and freedom to learn anything and everything that interested me and it was during this period of exploration that I began to form my interest in research. It was the hours spent in the ceramics lab, perfecting the oxidation reactions involved in creating a glaze, which introduced me to the craft of lab work. Anthropology attracted me immediately, but human evolution fell to the sideline for me, when we began to learn the influence domestication had on plant evolution. Then through my Introduction to Biology class I finally received a proper introduction to the biology of plants and my view of plants shifted from a mere curiosity to an immense respect. My curiosity outgrew my community college and I soon found myself in Chicago attending Northeastern Illinois University (NEIU).

When I moved to Chicago, I spent my nights and weekends serving food and every other minute in class or studying. I was unable to maintain a perfect GPA, but was empowered that I could both work and go to school full time. With all my work it is still not surprising that I found myself drawn to the greenhouse at my school, volunteering as much as I could. With the exposure to hundreds of species of plants, from which I was then able to closely maintain and propagate, did my interest in plant development flourish. I don't know why it never occurred to me before, but around this time I began to research what is known about the evolutionary development of plant form. This is the moment I realized my abstract thoughts on plants were not abstract at all, but a community of scientists exists who are exploring the very same questions I have been asking my entire life. The decision to join these scientists was simple; becoming a researcher in this field integrates so much that I am passionate about in life. For the first time I had future aspirations and I jumped head first towards realizing this dream, starting with research in the NEIU greenhouse.

Unfortunately, I wasn't aware that I could pursue science for most of my life and I partially blame current cultural mentalities in my milieu, which blocked science as a viable option for me and I am passionate about exposing the falsity of these ideas. The first myth that spreads is the common preconception that a person is either an English/arts or a science/math person and I like many, was labeled at a very young age, which completely blinded me to a career in science. I grew up fearing math and science, like the majority of young students in this country. I want to get the message out that your abilities in life aren't predestined, and areas of learning are not inclusive, but thrive on the integration of all ideas. It is with the integration of many of my interests that I created a successful radio program at NEIU. Every week, I would construct a three-hour program, which was infused with my passion for music, science, and involvement in community. Some days there were readings on current world or science events

and other days I would invite people to talk. I was also quick to promote any volunteer opportunities in which the listeners could participate. When I was at the University of Kansas I participated in a program that unites undergraduates in the arts with science, the theme was “The Tree of Life” and students incorporated evolutionary concepts into their projects. I was available to these students to discuss integration of science into their projects. Here at the University of California Davis (UC Davis), I hope to take advantage of all the agricultural and plant biological knowledge our University has to offer and get this information out to the general public through interviews and updates on recent scientific discoveries. I plan on creating a radio program devoted to reaching broad audiences on the exciting aspects of current plant research. KDVS, UC Davis’s associated radio station, has the ability to reach many people, locally through the airwaves and to the entire world through podcasts. This past year I have been training through KDVS and have a smaller show late at night. I have started talking with a widely successful program at our school, This Week in Science, about future collaborations. I aim to replace the fear in science with the adventure of discovery through integration of science with non-traditional outlets, especially art.

Another issue I am passionate about is the incredible discrepancy in minority participation in science. I am of Hispanic decent and am still to this day shocked at the lack of diversity in sciences. SACNAS (Society for Advancement of Chicanos and Native Americans in Science) is a major influence in driving me to take an active role in encouraging diversity in the sciences. At my first SACNAS conference I found a community for support and a wealth of information on graduate school. I returned motivated about continuing my education and wanting to take a leadership role in uniting people with a passion for science. I established and became president of a SACNAS chapter at NEIU and began to form a community at our school. I continued my involvement with SACNAS by co-founding and acting as vice president for a joint chapter with Kansas University and Haskell Indian Nations University (HINU). We recruited and united students who are interested in further education in science. One of the events I am most proud of, is our SACNAS chapter’s help to work and organize the HINU Undergraduate Science Symposium, aiding in solidifying a much needed presentation outlet for science undergraduates at HINU.

Here at UC Davis I have contributed my leadership skills and outreach experiences in a variety of ways. A fellow graduate student and I have also become the event coordinators for our graduate group where we have organized several events including a research colloquium. This summer I held a weekly seminar on career choices in science with a group of undergraduate interns from a local community college. I brought a variety of speakers from different disciplines to the group and gave advice on what to expect in each career path. I have also been working with the Sustainability Manager on campus, Allen Doyle, to help the campus become more green, specifically through obtaining and distributing information on alternative storage to deep freezing.

The passion for research has always been in me; the only difference between myself at 7, lying on a blanket sketching plants is I dropped my pencils and I picked up a microscope. While it’s interesting to look back on how I got to where I am today, my true influence lies in looking towards the future. With the aid of a NSF fellowship, I will obtain the freedom and security to share my findings on the evolution of development in life. More importantly, I can integrate my findings with teaching, to instill how exciting science truly is to a younger generation and to continue my work of providing more access to science in this country. I am still thrilled that I am here exploring what is most interesting to me and am lucky to be in a position that when I get discouraged, a simple literature search on current research refreshes my enthusiasm, as it has been doing from when I first started researching the evolution of plant form three years ago.