

After growing up in Virginia farming country as part of a huge extended family with no ties to higher academic professions or even science, it is honestly still a shock to my family that I have come this far in my scientific career and intend to keep going farther. Although my background is unusual, I knew from an early age that I liked to push myself to do my very best, even if the odds were not in my favor. In genetic and genomic biology, I've found a place to do that and much more, continuing to invest in the scientists around me as holistic researchers and encouraging a safe and equitable workplace for my peers. My motivation for pursuing graduate studies has many influences and my primary motivation for studying biology lies within the research itself; however, the possibility of leveraging my position to build a more inclusive and enjoyable work environment for all as I move through academia is a major driver for me pursuing graduate studies at large.

I was taught for the first seven years of my educational life by my mother, who had immigrated from Australia without a college degree. Consequently, it came as a shock to start going to a real school in my rural community. When my local high school proved to focus more on agricultural and vocational shop classes than English and biology, I began to try and look for ways out of my small town into more stimulating educational environments. However, my parents, both of whom are currently farmers, did not have the financial resources to help me find higher-caliber schooling. My father had recently been diagnosed with a type of cancer that is usually terminal, and hospital bills were weighing heavily on the family. Coming from a rural background with little to no parental support into college was a challenging experience, especially to pursue a career in STEM. Although these barriers are so much smaller for me than for people from other minorities and underrepresented groups, through my own experience I have come to understand what it feels like to lack the generational experience and resources that others might take for granted. The community of scientists I have been privileged to meet from Wellesley and onwards have confirmed for me that even with my less traditional background, the career in academic research that I want is still a possibility for me.

During my career at Wellesley, I worked on several summer research projects, one of which was within my hometown community. Working with the Smithsonian Conservation Biology Institute, which has its headquarters nearby in an adjacent rural town, I joined a project using citizen science outreach to catalog local native orchid biodiversity on conserved land in northern Virginia. I found common ground between my scientific training and the community I grew up in, as the community's interest in the local landscapes and habitats around them increased with new scientific knowledge. Helping to build a system that made science less intimidating to members of my hometown, while also improving their knowledge of the ecosystems around them and contributing to a real scientific project, made the applied impact of our efforts clear. This project helped build my confidence in communicating the work I was passionate about, and demonstrated to myself that the path I have chosen can directly and positively impact the larger world even outside of scientific research.

Because I chose to pursue my STEM interests at Wellesley, which is a historically women's college, I felt exceptionally supported in scientific research by my peers and mentors. Within my classes and labs, I wasn't competing in a gender-unequal environment for opportunities, because my classmates were other women in science. I was incredibly grateful for this as I grew more confident and knowledgeable as a researcher in a safe space. However, after leaving Wellesley and joining the workforce, I did witness how implicit bias and cultural norms can disadvantage qualified women and minority groups in STEM-field research. Because of the behaviors I witnessed, I became involved in the BroadRATS' (Research Associates and Technicians) Sexual

Harassment and Discrimination Working Group, where we were involved in providing and advertising resources to prevent and address workplace harassment and discrimination. During my time on this committee, we were closely involved in the hiring of an Ombudsperson to act as an impartial resource for all Broad employees, building safety and communication pathways for the Broad community. This experience gave me hope and let me invest in my scientific community in a way where I had unique and productive expertise. Working with this group showed me how I can bring my whole self into science and make a place for myself, even if there is not already a known path forward. My ability to contribute positively and build an equitable, diverse community in the field I enjoy studying felt special, and I hope to be able to continue this into graduate school.

My trajectory into biological research has taken an unusual path, but my history is the root of the dedication, drive, and curiosity that I bring to my work. The difficulties of coming from a rural community, lacking a clear template on how to pursue the career I wanted, and managing the pressures from coping with a family member's illness have all affected the trajectory I have taken into STEM research, but also helped me find myself as a scientist and human being. My background makes me all the more invested in continuing to drive outreach efforts to improve scientific literacy and communication, and gender equity and diversity in STEM research. Without my varied experiences, I would not be able to pursue the career that I want in genomic research with the same degree of dedication and positive energy that characterizes my work today.