

Darrell R. Stokes Award Essay:

It was my first day as a volunteer with Emory University's Project SHINE. Surrounded by colorful maps of different countries that stretched across the walls, I introduced myself as one of the new teaching assistants in the citizenship preparation class. The students were as diverse as the maps—they hailed from many different countries and walks of life. "What is your name?" I asked with a smile, as I began practicing the naturalization interview with a student. I soon realized that the 75-year-old woman did not speak or understand English. I struggled because, for the first time, I could not rely on words for communication. I found myself using my hands to convey the meaning of words to her. When I realized that verbal repetition coupled with visual cues could guide her, I moved my hands one way to ask her for her name and another way to ask her for her nationality. The next week, I had prepared phrases in her native language to better facilitate the interview. This humbling experience demonstrated something that I found incredible—a bridge between two strangers could be created by earnestness, laughter, and collective growth when words could not.

My meaningful interactions with the students fueled my desire to make every volunteer's experience both memorable and enriching. After my first semester with the organization, I joined the leadership team and currently serve as Project SHINE's director. I find that leading efforts to narrow educational disparities in Atlanta motivates me, and I enjoy connecting Emory students with immigrants and refugees in citizenship and after school tutoring programs. It has truly been a rewarding experience to work alongside fellow leaders and to engage over 120 Emory volunteers in twenty weekly service trips every semester. My role in Project SHINE has not only cultivated my appreciation for working with individuals from linguistically and culturally diverse backgrounds, but also taught me how invigorating it is to teach. Over the past three years, I have channeled my passion for mentorship and teaching in Project SHINE, as well as in my roles as a biology 141/142 teaching assistant, biology 499R research fellow, orientation leader, academic fellow, and academic coach.

With their kindness and wisdom, my professors have played enormously influential roles in my desire to teach and mentor. I was compelled to share my love for biology and research, just as my favorite professors in the biology department have. As a mentor in biology 141/142 and 499R, I helped students learn new material and navigate research experiences. I remember how excited I was to stand in front of the biology 499R class as I lectured on summer research internships and shared my summer fellowship experience at MD Anderson Cancer Center (MDAAC). I had the rewarding experience of compiling resources for peers and mentoring several students through the application process. I'll never forget how ecstatic I felt when a student shared with me that he had been awarded the MDAAC fellowship. My most fulfilling experiences as a biology student have come from moments like this.

As I engaged more in mentoring and teaching roles, I found a deep appreciation for the creativity that my professors exhibited with their seamless ability to convey and personalize instruction to students' unique way of learning. I have strived to emulate these skills as an academic coach, where I work with Emory students to enrich their study habits and time management skills. I have also enjoyed mentoring students throughout their first year as an orientation leader and academic fellow, from emotionally supporting my mentees through the woes of course enrollment to empathetically listening to their stories of homesickness.

Just as my professors' love for science inspire me, I find their enthusiasm for other subjects also contagious. Sitting in their offices made me realize the intersection of their many diverse interests. My physiology teacher's office always sheltered a bike and marathon medals, aweing me with his passion for

physiology and exercise. With beautiful paintings of neurons and plants lined along the wall, another biology professor seemed to effortlessly marry the art and science. Their interests in painting, running, and traveling instilled in me the curiosity and courage to probe beyond the boundaries of science.

These formative moments have led me to embrace my creativity and desire to explore science in the broader context of health and society. Growing up as a daughter of an artist and a musician, I have always enjoying applying my love for art and music to create experiences for others. At the Emory Winship Institute where I volunteer, I created an adult coloring book for patients. At Emory's hackathon, I contributed to the creation of Heartbeat, a mobile application that was recognized in the competition with the \$10,000 grand prize by sponsors such as Spotify. My team addressed the concern that an inactive lifestyle is often due to a lack of motivation. Realizing music's motivational power, we created Heartbeat to boost running performance by generating music that synced with the runner's tempo.

Sociology, epidemiology, and health policy courses incited my fascination with the interplay of biology, policy, and society. To broaden my perspective of biology and health, I pursued a fully funded opportunity through the Emory Scholars Program to study abroad in London and to learn about sociological determinants of health and health care delivery in the U.S. and U.K. My experience not only amplified my appreciation for the interconnectedness of science, healthcare, and society, but also demonstrated to me the value of integrating the biological and social science in making an impact on human health. While I interviewed British citizens for my study abroad research project, my comfort with approaching strangers in a foreign country surprised me. This realization made me reflect on how my mentoring and teaching roles in Emory and Atlanta allowed me to gain confidence in closely interacting with linguistically and culturally diverse populations.

With a deep interest in health, medicine, and cultures, I am engaging in interdisciplinary research by uniting microbiology with anthropology in my honors thesis with Dr. Cassandra Quave. To discover novel antifungal drugs, I apply ancient knowledge of plant-based antimicrobial agents honed by traditional medicine to today's urgent demand for alternative antifungal treatments against drug-resistant pathogens. In my thesis, I have built on the experience that I have gained from five previous labs, which include pathology, cell biology, and biochemistry. Research has also led me to co-author a publication and a manuscript, as well as present at the 2016 American Association for Cancer Research Annual Conference where I was awarded as one of top fifteen undergraduate presenters. In 2016, I received the opportunity to participate in a NIH-sponsored advancing training course on aging and regeneration research. I also carry my love for research and writing as the Head Social Science Section Editor for the Emory Undergraduate Research Journal. Furthermore, I am the recipient of the Dean's Achievement Scholarship, the Barry Goldwater Scholarship Honorable Mention, Phi Beta Kappa, and Robert T. Jones Scholarship. I also received the Emory Scholars Conference Travel Grant, as well as the Emory Scholars Study Abroad Tuition Award and Supplemental Grant.

My academic and extracurricular activities at Emory and the Biology Department have helped me foster an awareness of different ways of seeing and led me to embrace the value of an interdisciplinary background to color science and medicine. For this reason, I plan to pursue an MSc to study health at the University of St Andrews through the Robert T. Jones Scholarship, and then train at the Baylor College of Medicine's MD/PhD program. As the daughter of an artist and an opera singer, I often receive puzzled looks when I say I want to be a physician-scientist; I am energized by the artistic creativity that unfolds when I watch doctors and scientists reflect and introspect on innovative approaches to medical, scientific, and teaching situations. My experiences as a biology student have led me closer to achieving my ultimate goals to teach, treat patients, and pursue interdisciplinary research.