

“What is cancer?” asked my high school biology teacher.

Looking down at my textbook and peering at the illustrations, memories of my past floated into my awareness. I remember my lack of hair, constant nausea, purple bruises, and the years of schoolwork done on a hospital bed.

To most, cancer is a foreign concept. But as a childhood cancer survivor, I was fully aware of the disease and its devastating effects. For about eight years in my life, I was constantly in the hospital feeling sick. After my remission, my parents wished for me to move on from the pain we had all felt.

I did not want to move on. I constantly asked myself the same question; what is cancer, and what can I do about the cancer that hurt me?

As I grew up learning about cancer, I find myself completely drawn to the field of biology. Each one of the courses I took taught me how incredibly complex biological systems are, yet how each organism on Earth shares common characteristics with its neighbors. Every biology textbook inspires me to look at the individual metabolic pathways in a cell and see how they make life, and how simple mutations can lead to the death of a child.

No one except for me knows about my second chance at life. My dream is to end childhood cancer, especially ALL, so young children are not required to make sacrifices like I did. In order to accomplish my dream, I joined the biology research program during my sophomore year of high school. After I joined this program, I reached out to my childhood oncologist Dr. William Carroll, who is the head of his own laboratory at NYU Langone Medical Center. For two summers, I pursued my passion for cancer research with him by examining what would happen to the chemoresistance of relapsed ALL cancer cells if they lost the ability of mismatch repair.

I woke up every day with a smile on my face because I knew what I was working on, which was how to stop acute lymphoblastic leukemia from continuing to replicate, and could help someone in the future. I was changing lives, all because I accepted that I would never have a normal childhood. Instead, I used my childhood to dedicate myself to the lives of children and adults who needed more help in the fight against cancer than I ever did. In the laboratory, I have never felt more alive. As I watched cells die from the drugs I gave them, I am fascinated, knowing that my research has significant meaning. The minute I finished my first draft of the research paper I worked on, which took months of writing, editing, and deleting, I felt like that small, Bengali girl who never stopped learning about cancer since childhood. I felt like I had an important purpose in life, which was to continue to use my backstory as a weapon to fight against cancer.

It felt extraordinary to receive recognition for the significance of my research. I was astonished when I was granted the Semifinalist Award from the Junior Science and Humanities Symposia Program at CUNY York College and the Third Place Award from NYC Science and Engineering Fair at CCNY. However, holding these awards in my grasp did not feel nearly as meaningful as

my progression of writing my first research article. I made an extremely small step forward in the overall race to understand a gene's significance in cancer through months of effort. Working relentlessly for significant results I thought would never gain gave me a deeper understanding about the importance of cancer cell research and my purpose in life to give back to children like me.

I attend Cornell University, and I did not hesitate to take classes that guided my interests in my quest to understand biology and cancer. I asked myself, "What parts of biology did I not unearth yet or touch upon? What subjects of this broad academic field seem foreign? What classes can I take to understand yet another world of biology?" The activities and extracurriculars I was involved in and the subject material I chose to undertake helped my exploration of the world of biology.

I want to use my second chance at life to help give others a second chance. After graduating from Cornell University with a Bachelor of Science, my goal is to enter a master's in science program in order to become a cancer researcher. I need this scholarship in order to fund my passion. I want to study cancer biology because I had the chance in the form of connecting my cancer history to my passion of graduating college. My parents' Islamic ideals and my oncologist's implementation of Western medicine shaped my process of surviving childhood cancer. I have an important purpose in life, which is to continue to use my backstory and future as a weapon to fight against cancer through my dedication to study biology. I will never give up.