

What do genetics and biology have to do with psychology? This is the question at the forefront of my mind. Genetics has always appealed to me as it is the main component of who we are. I appreciate that we can trace our heritage and learn about different parts of our personality and physical body that make us who we are. The answers lie in these tiny fragments of information that are pieced together, and still, their impacts are largely undiscovered. The elements that fascinate me most are the anomalies and outliers. I dream of working on something that can help make people's lives easier or more easily understood. There are so many genetic mutations that can cause severe diseases that are not well understood by most of the population. Knowing the impact that the study of biochemistry can have on the world is one of the key motivators for me to study it at undergraduate level.

During my internship at King Faisal Specialist Hospital and Research Center, I experienced the day-to-day life of a geneticist, from PCR testing and standard lab practices to testing a woman's genetics to understand the cause of her recurrent miscarriages. This was a fascinating experience as I could see the impact of this work on people's lives and envision my future in biochemistry. I began to wonder how our individual microbiology presents in each of us as I applied it to my own difficult experiences. My parents faced severe hardship right after this internship ended. Seeing how they individually handled the situation psychologically and how it impacted them physically made me wonder how these tiny genetic differences can play a vital role in who we are. My sister and I were affected so differently. I became far more involved than expected, yet I had a more resilient approach. These experiences made me question how slight genetic differences might be linked to our responses to environmental factors.

Another element that fascinates me relates to my origins in Saudi Arabia. I often wonder about all the people who have lived in and passed through this region. With trade routes and nomadic tribes in addition to the rooted populations, it would be fascinating to research how the current residents of this region have evolved from the intersection and combinations of people who have passed through here over time. Some diseases are more prevalent in specific regions or demographics, but that isn't the case in Saudi Arabia. I am curious if that is partly due to the unique genetic makeup of being an early trade route with a long history of mixing genetics.

I am deeply passionate about genetics, organic chemistry and conducting research to solve problems. I would like to use these skills to create real-world change, and studying biochemistry will allow me to do this and answer so many unanswered questions through the scientific research involved in the course. Learning about physiology, cellular biology, and developmental genetics, as well as the ability to conduct independent research, is so exciting to me because of my deep interest in the subject.

Furthermore, I am an incredibly dedicated and resilient person. These traits were discovered and tested over the past year; I've had to attend a court case against my father and nearly lost my sister in a custody battle, all whilst still attending school. This was the conclusion of years of psychological abuse from my father, who threatened my safety. These events transpired right after my second internship at the King Faisal Research Center; this newly found

desire and drive to pursue biochemical sciences got me through this challenging time and allowed me to complete my studies. Equally, I am a person open to new ideas and perspectives and eager to learn and grow. I believe these skills of resilience, dedication, passion and eagerness to learn would make me an asset to any classroom. I display exactly the inquisitive-natured requirements and personal responsibility needed of a biochemistry student at King's College London. If accepted to this course, I will be sure to fully engage with course materials and my peers to ensure I use this opportunity to make the world a better place.