

The most important thing in exploring the world around us is to dare ask questions. Being a curious observer, after seeing this magnificent world and the wonders of nature, I have been intrigued and moved by every field of natural sciences at some point in my life. The thing I was most fascinated by was how every living organism on this planet consists of cells coordinating their forms and functions to make up trees, hamsters, and us as humans. After learning about all these during my studies, I have become dedicated to molecular biology and biochemistry.

The main event that sparked my inquiry was a summer research camp held by the Hungarian Academy of Sciences in 2017, where I had the chance to work in a world-class laboratory. I transformed bacteria with an expression plasmid, and after extraction and cleaning I ended up with ERD14, a disordered chaperone protein. I was thrilled to work with minuscule cells and molecules with tools and machinery previously unknown to me. I was captivated by the notion of not seeing any change in the solution I was working with, but always being aware of what was happening on the molecular level. Receiving confirmation from the electrophoresis of proteins within the solution after each step and perceiving how the number of distinct bands decreased throughout cleaning was amazing. I even performed an experiment investigating how ERD14 binds a specific RNA by electrophoresis of samples with different relative concentrations.

Having attended the Molecular Frontiers Symposium later on, I had the opportunity to listen to presentations of well-known researchers. I took part in a group talk with William DeGrado, an expert of *in vitro* protein designing, which I am intrigued by, and all my questions concerning protein folding and industrial methods have been answered.

In my previous school year, I started studying chemistry and biology independently. I have read course books on genetics, studied online, and read *The Gene* by Siddhartha Mukherjee on the history of genetics. Searching for advanced academic material I am currently studying from Campbell Biology.

This enthusiasm led me to the final round of the Biology National Olympiad (OKTV), where I have achieved 7<sup>th</sup> place. After scoring the 2<sup>nd</sup> place in the national qualifier, I was selected to be one of the Hungarian participants to attend the 2018 International Biology Olympiad in Tehran, where I earned a silver medal. What I loved at the IBO was how most of the problems I faced needed creativity and a practical approach, and not just raw knowledge. Besides the competition, embracing Persian culture and meeting international students with whom I could share my thoughts and ideas in English was an unforgettable experience. I hope to attend these competitions a second time this academic year.

After getting the idea of helping younger students, both struggling and curious, I started volunteering in my school. Not only do I teach them, but they too teach me how to explain concepts in a clear-cut way. I also help organise the natural science summer camp at our school, where I can develop my social skills further and meet students with similar interests. Occasionally I take part in board game sessions, something I hope to continue at university as a member of a society of the sort. I have been playing the cello for over ten years, and I am currently part of a cello band. I would be glad to join a music society as well, become part of an orchestra, or even sing in a choir.

Besides all my non-scientific interests mentioned, a significant part of my life revolves around seeking knowledge and understanding the world I'm part of. In the past few years, I have come to realise that I wanted to become a researcher contributing to humanity's efforts. This is why I seek education in the excellent institutes of the UK. I hope to be found worthy of a place at your university, and that my studies will help me become a valuable member of the scientific community.