

2020, Natural Sciences (Biology), St John's College

The first time I had a notion of my future, I pictured myself as an architect, designing magnificent bridges, connecting pieces of land that otherwise would be separate. However, as I encountered formal and natural scientific subjects at school, they immediately aroused my curiosity. I have focused mainly on natural sciences in my later years of secondary education, although the initial concept of making connections stuck with me. As an architect of my own life, I aspire to expand my knowledge base in a wide range of disciplines, and to explore common themes from different perspectives.

To accomplish this goal, I have dedicated a considerable amount of time studying topics outside the curriculum of the Hungarian secondary education, and understanding well-established concepts on a higher level. Attending extracurricular activities - mainly preparatory courses for higher education - and participating in academic competitions were my main methods of self-improvement. As a result, I qualified for a total of sixteen national competition finals in numerous fields, including Biology, Chemistry, Mathematics, Physics, History, and English. These competitions not only awarded me with places in the top ten but provided me with a substantial skillset and consecutive challenges.

Having placed 3rd in the national qualification tournament, I was selected to represent Hungary in the 2019 International Biology Olympiad (IBO), where I won a gold medal. During the preparation process, I acquired several essential skills, such as the use of bioinformatics software and laboratory techniques, like PCR, chromatography methods, plasmid cloning, gel electrophoresis, and spectrophotometry. The concept in biology which intrigues me the most is how every phenomenon has a molecular basis, such as diseases or genetic disorders, and how these techniques bring us closer to understand them. The sessions made me feel constantly motivated to do my best, even though they were highly demanding. Doing the very thing I love while representing my country filled me with determination. Individual work was important too, since it was the best way to immerse myself in the study material.

I also participated in the 2019 International Chemistry Tournament (IChTo) in Moscow, and earned a bronze medal as the captain of Hungarian Team Green. At this competition, there is an emphasis on cooperation between team members. The ability to collaborate is essential for scientific work, and my experience at IChTo made me more proficient at it. The competitors had to debate on a predefined set of scientific problems and to refute the opponent team's solution to them. In preparation for the tournament, I conducted multiple experiments with my teammates and a scientist at the Hungarian Academy of Sciences, which involved complex formation reactions of cobalt and iron compounds by mechanochemical methods, a topic scarcely discussed in scientific literature. We intend to publish our results, and we are currently working on an article to send to the Journal of Chemical Education.

Science plays an important role in my life. However, for me, it cannot provide a fulfilling life on its own. Spending time in nature helps me relax greatly, for this reason, I regularly go on canoe trips and hike whenever I have got time to spare. Volunteering at international aquatics championships in Budapest (2017) and Glasgow (2018) were great opportunities for me to meet people from all over the world, and face new challenges. In addition to developing my own skills, I also take time to help others with their studies. I tutored children in both my neighbourhood and school, enabling them to perform better.

Studying in the UK would make it possible for me to live up to my potential. The academically demanding environment would stimulate me, while learning from excellent lecturers and working in cutting-edge laboratories would help me achieve my goal of becoming a well-rounded scientist.