

'How does Santa Claus not burn while travelling so fast in the atmosphere? I will not die overnight if I get volvulus, appendicitis and sinusitis at the same time, will I?'-asked little Eszter in the kindergarten. Seeing my parents working as doctors I was impressed by medical science at a very early age. Bedtime stories about diseases made me realise how complex our body is and that even the tiniest flaw in the mechanism can break it down. Finding a cure to these flaws is a mysterious riddle, and in my future profession I want to be the detective who solves this puzzle.

My journey to medicine started in a German bilingual secondary school with advanced physics, biology and mathematics. Going beyond the secondary school curriculum, I applied and got admitted to a national talent development programme in biology, in which I attended a dozen of lectures on topics such as neuroscience and cell biology, and I weekly joined undergraduate chemistry seminars and practicals for two years as well.

At school I found myself participating in competitions, in which I really enjoyed the challenge and preparation. I was in the top three in prestigious national chemistry competitions eleven times and got a silver medal in the International Mendeleev Chemistry Olympiad in 2017. The same year, our team came first in the International Chemistry Tournament in Moscow and I also got into the final round (top 15) of the Hungarian IBO qualifier. First I thought it was getting familiar with techniques such as NMR and PCR that I gained from these, but later realised, what I actually learned was applying multidisciplinary knowledge while solving complex problems, handling unexpected situations and coping with pressure, which will all be of prime importance in clinical practice.

Encouraged by a professor, I joined a network science research group at Semmelweis Medical University, where I faced the exciting challenge to start an independent sub-project. I constructed an interaction network of proteins associated with stem cells with the aim of measuring stem-like characteristics of cancer cell network models. In a national research competition (TUDOK) I won the first prize with my work, however, what I most appreciate about the project is that I can learn from prominent researchers and may contribute to the development of a potential personalized therapy against cancer.

To dig deeper into the world of science, I spent a week at the Hungarian Academy of Sciences studying the properties of liposomes and a fantastic month in Israel at the Weizmann Institute investigating the presence of a specific protein in genetically modified mice. During this student research programme I gained first-hand experience in gel electrophoresis, reverse transcription and flow cytometry, and it also taught me how to cooperate with people from all over the world.

Since summer I have been volunteering in the local hospital shadowing specialists and helping nurses in changing bedsheets and nappies, giving baths and taking patients to examinations. Working with children made an especially strong impact on me. I was shown a neurological patient, a little girl, who had myasthenia gravis and reacted positively to the treatment; it was incredible to see how doctors could make her life better. Besides this, I cared for a prematurely born baby girl, witnessing her improvement in the first few days and supporting her mother confirmed my conviction that I want to help people directly from bedside.

In my spare time I love skiing, playing the piano or directing short movies, and currently I am training for the Lake Balaton Cross Swimming.

'Why do you want to be a doctor?' 'To be a hero.'-answered little Eszter. Why I learnt that doctors have no superpowers, I believe that studying in the United Kingdom would still armour me with both the knowledge and interpersonal skills which would be essential in doing my best both in the clinical aspects of medicine and at a high level of scientific research.