

Working out the rules of a game based merely on observations can be as enjoyable as playing the game itself. For me, this is similar to studying natural sciences. As the amount and soundness of laws governing nature is unknown, our knowledge is never complete and sometimes even results believed to be correct need to be reconsidered. Hence there is always room for new discoveries, which is the strongest motivation behind my intention to study natural sciences at university.

I started to study physics and chemistry in my first year of secondary education, and thanks to my teachers, I became immediately fascinated by these subjects. The more knowledge I acquired, the more I was amazed at the marvellous theoretical background behind even the simplest phenomena. I have been attending extracurricular courses at my school and a mathematical camp, organised (by Lajos Posa) at the weekends for the most talented and enthusiastic students. In addition, I spend considerable time learning on my own. Apart from reading theoretical materials, I enjoy solving problems the most. For example, I worked myself through the book *200 More Puzzling Physics Problems* (Cambridge University Press, 28 April 2016). I think this hard work has paid off: I have participated in many scientific contests, including the following national and international ones:

Physics:

International Physics Olympiad 2017 Silver Medal, European Physics Olympiad 2017 Silver Medal, National Olympiad (OKTV) 2nd place (in 2017), Mikola Sandor National Physics Competition 1st (in 2016) and 3rd (in 2015) place, Mathematical and Physical Journal for Secondary Schools Physics Contest 1st place (in 2017)

Chemistry:

National Olympiad (OKTV) 17th place (in 2017), Irinyi Janos National Chemistry Competition 2nd (in 2016) and 3rd (in 2015) place

Furthermore, I got into the final rounds of several mathematical and programming national contests (OKTV in both subjects, Arany Daniel Mathematical Competition, Nemes Tihamer National Programming Competition). I have dealt with a range of subjects not only because I like them all, but also because these days there are several interdisciplinary fields, and a wide theoretical background is indispensable. However, a couple of years ago I realised that I would not be able to excel in all subjects, so I started to focus my attention on physics. I attend problem solving and experimental courses organised by the Budapest University of Technology and Economics and Eotvos Lorand University. The main goal of these courses is to prepare students for the International Physics Olympiad.

My desire to become a researcher strengthened when I attended a research camp organised by the Hungarian Academy of Sciences. During the two weeks, the participants got a glimpse into recent research projects. My group studied the structure of cell membranes, and our summary was then published in a digital Hungarian chemical journal (*Kemiai Panorama* vol. 16).

I would like to continue my studies abroad to become part of the international scientific community. In the UK, I find the tutor-system very attractive: during my studies so far, several teachers have helped me and I see the importance of personal attention. I hope that taking a natural sciences course will allow me to join research projects in the future.