

Personal statement

I have a profound interest in natural science with priority for chemistry and physics, though I took elective courses both in maths and in physics. I am amazed by the cellular system which, obeying the laws of chemistry and physics, shows up a remarkably complex behaviour. I look forward to delving deeper in these subjects and exploring their overlapping areas in the hope of using them to make our world better— just as biotechnology did.

I have always felt the strongest affinity towards chemistry because it requires both creativity and logic. I have taken part in several competitions, where I met other people with the same interest. In 2013 I scored 2nd in the Hevesy György chemistry competition. After an intensive half year training comprising A-level Chemistry, Biology and Physics, I got into the Hungarian team of IJSO. In Pune, India I won a bronze medal. In 2014 I won the Irinyi János chemistry competition (biggest chemistry competition in Hungary). Next year, scoring first on the qualifications, I became part of the Hungarian EUSO team. In 2015, in Klagenfurt, I won a gold medal and the absolute second place. I again won the Irinyi János competition in 2015 and I was awarded with the Irinyi prize. In the 10th grade I reached the second place on the National Chemistry Student Olympiad thus winning the right to participate in the qualifying sessions of the IChO and the Mendeleev Olympiad. Despite the great amount of unknown topics I scored sixth, which got me into the Mendeleev team. Next year I aimed to get into the IChO team. I read both Physical Chemistry by Atkins and Organic Chemistry by Clayden, Greeves, Warren and Wothers. The former helped me to get an overview of the physical laws affecting chemistry while the latter shed light on the principles governing reaction mechanisms and also made me think of chemistry as creative and fascinating. My efforts were crowned, I scored third and first among the younger students on the qualifying rounds. On the Mendeleev Olympiad in Moscow, I got a silver medal which I'm proud of. On the IChO 2016 in Tbilisi, I won a silver medal again which I would like to achieve or possibly surpass this year.

Apart from chemistry, I find both physics and biology interesting. In 2014 I persuaded my physics teacher to organize a 7-day visit to CERN, where I decided to do my project related to particle detectors. It took me half a year to build a Peltier-cell cooled cloud chamber. I also got in touch with Gron Tudor Jones, (University of Birmingham) from whom I learned much about bubble chambers, about which I later held a lecture. This project taught me to plan ahead in time. In 2015 I scored 4th on the Szilárd Leó nuclear physics competition and next year I reached the 2nd place. Biology interests me mainly on the molecular level, I am fascinated by how the regulated interaction of compounds makes life possible. Following my interest, I read Network Science by László Barabási, which changed my view of these systems. I also mastered the Python programming language.

I also like being an active part of the community and work in small groups. LeS - Ludicrum et Scientiam is a unique lecture and talk series which I founded last year. Organizing these events I have the opportunity to meet leading researchers, business leaders and to develop leading and persuasive skills. I am also one of the organizers of the fresher's camp each year.

Besides science I live for my hobbies. I love learning languages, I speak English (C2 certificate), German (C1 certificate) and Italian (preparing for C1) and I self-studied Russian. I do orienteering in a club, which

helps me to relax and for 6 years I have been playing the guitar, allowing me to make time spent with friends more enjoyable. Last year I started experimenting with home-brewing. Due to these experiences and my passion for science, I feel prepared for the academic challenges and hope for an opportunity to get the most out of the course and myself.