This letter is written to support Oleksandr Shumaiev application for the MIT admission.

My acquaintance with the applicant began about 3 years ago, when Oleksandr won the Regional Olympiad in Physics of the Kharkiv region. He was seemingly an ordinary 8-grader, however I quickly understood his high intellectual potential. I used to prepare the best students of the region to the National Olympiad in Physics. Oleksandr performed much better than other students, so I decided to train him personally for 2 weeks before the Olympiad. The result wasn't long to wait: Oleksandr became the absolute winner of the Olympiad. After this, however, he didn't want to quit, and I trained him further for the International Olympiad IPhO. Eventually Oleksandr managed to bear fruit by taking 2 medals (silver and gold) at the IPhO.

Olympiads were a passion for Oleksandr, however he also prepared himself for his future scientific career. He took part in the Young Physicist Tournament, and his team won in 2015. In the Tournament the participants are to solve research problems, namely they conduct a short research on a certain topic and then report their results and analysis to the jury members and members of other teams. The objectives set for the participants are similar to those of the scientists, so it was a valuable training for Oleksandr.

After the victory in the Tournament Oleksandr was full of inspiration, and he was willing to conduct a full-scaled research. I agreed to supervise him in his studies of argumental oscillations. Oleksandr researched the Duboshinskii pendulum and compared it with a quantum oscillator. He found the energy level values and specified conditions when a certain energy state is established. Oleksandr showed his best and I was positively impressed by his precise and productive ideas. He even wrote a paper with me as a second author and it is in print in the Journal of Applied Physics. I hope the paper will help scientists to make an invention.

With this, Oleksandr Shumaiev likes spending his time outside. He enjoys biking the city in the evening, and I found that some of my other students shared his hobby. Biking helps Oleksandr maintain his mood, passion of physics and psychological strength. What is more, he strengthens his relationship with his friends in this way. I'm sure that Oleksandr found a lot of friends at the IPhO, and I'm sorry I wasn't there with him.

Oleksandr will undoubtedly become a prominent scientist. I rate him exceptionally high among my other students and enthusiastically recommend him for the MIT Transfer program.