

BOTOND KERTÉSZ



National Academy of Scientist Education, 1st year

Semmelweis University
Faculty of Medicine, 1st year

YEAR OF BIRTH

2003

FORMER SZENT-GYÖRGYI PUPIL

no

SZENT-GYÖRGYI MENTOR

Attila Ambrus

JUNIOR MENTOR

Bálint Nagy

SPECIALIZATION

biochemistry,
biophysics,
structural biology,
molecular enzymology

SECONDARY SCHOOL

Boronkay György Technical
and Grammar School, Vác

NAME OF TEACHER

Ágota Kónyáné Csirik

LANGUAGES

English/B2

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

In the society of the 21st century, disorders of the nervous system, cardiovascular system, and liver pose a huge burden. Often, genetic mutations associated with the enzyme system of mitochondria, the cellular organelle responsible for energy metabolism in the human body, cause these conditions.

The focus of our laboratory's research is on the mitochondrial alpha-ketoacid dehydrogenase enzyme complexes, which play a crucial role in energy metabolism. An essential part of our research is the interpretation of molecular structural changes underlying the abnormalities. Furthermore, it is our important aim to develop strategies for replacing malfunctioning enzyme variants with healthy ones. Our results may also contribute to the adjunctive treatment of other neurological disorders such as stroke, neurodegenerative diseases, and so on.

AMBITIONS AND CAREER GOALS

During my university years ahead, my goal is to participate in high-quality biomedical researches at the Department of Biochemistry of the University while completing the general medicine program. It is also my aim to acquire research knowledges with the assistance of the National Academy of Scientist Education, which will provide a solid basis for my scientific career after obtaining my degree. My long-term goal is to achieve a PhD degree and become a successful researcher.

HONORS AND PRIZES

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PUBLICATIONS

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