

MILÁN CSERNYÁK



National Academy of Scientist Education, 2nd year

University of Szeged
Faculty of Pharmacy 2nd year

YEAR OF BIRTH

2005

FORMER SZENT-GYÖRGYI PUPIL

yes

SZENT-GYÖRGYI MENTOR

Csaba Pál

JUNIOR MENTOR

Petra Éva Szili

SPECIALIZATION

antibiotic resistance

SECONDARY SCHOOL

Munkácsy Mihály High School, Kaposvár

NAME OF TEACHER

Anita Keresztesné Földes,
Zsuzsanna Varga

LANGUAGES

English/intermediate

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

Antibiotic resistance is a leading threat for global health.

In the Csaba Pál Laboratory's previous work (<http://group.szbk.u-szeged.hu/sysbiol/>), more than ten antibiotics currently in various phases of clinical development were tested. Against these antibiotics high-level, potentially clinically relevant resistance developed in multiple critical Gram-negative bacterial species. The mutations responsible for the resistance also affected several genes, that were linked to bacterial virulence.

In my work, I am researching this change in bacterial pathogenicity, and based on this I am looking for specific antibiotic-pathogen pairs, where the cost of the resistance can prevent its development. If such trade-offs are prominent, these treatments can remain effective for a prolonged time.

AMBITIONS AND CAREER GOALS

During my studies in high school, the global threat of antibiotic resistance caught my attention and sparked my interest. My goal as a member of the research group is to immerse myself in the topic more deeply while acquiring the necessary laboratory knowledge because I would like to work as a researcher after obtaining my diploma.

HONORS AND PRIZES

- 2022 XXII. National Conference of Researching Students of the Carpathian Basin (TUDOK), Carpathian Basin Final: Grand Prize (1st place in my section)
- 2023 Chemistry OKTV, 20th place
- 2023 Biology OKTV, 44th place

PUBLICATIONS

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