

GERGŐ ZALÁN BIRÓ



National Academy of Scientist Education, 4th year

University of Szeged,
Albert Szent-Györgyi Medical School, 4th year

YEAR OF BIRTH

2002

FORMER SZENT-GYÖRGYI PUPIL

yes

RESEARCH UNIT

University of Szeged

SZENT-GYÖRGYI MENTOR

Tamás Csont

JUNIOR MENTOR

Márton Pipicz

SPECIALIZATION

biochemistry,
myocardial function

SECONDARY SCHOOL

Teleki Blanka High School,
Székesfehérvár

NAME OF TEACHER

Zsuzsanna Perák,
Erika Molnár,
Ildikó Kiss
Ágnes Hegyi

LANGUAGES

English/intermediate
German/basic

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

Cardiovascular diseases are still the leading causes of death today. Obesity and its associated, or isolated metabolic disorders (eg. hypercholesterolemia, diabetes) have a negative effect on heart function and increase the risk of myocardial infarction and reduce the heart's ability to adapt to heart attack. Some findings indicate that the environmental effects on the mother can also cause alterations in the offspring, such as abnormal heart function, which may be due to epigenetic changes. However, the effects of maternal high blood cholesterol on the hearts of adult offspring have not been studied to date. One of the aims of our research group is to investigate the cardiac function of the offspring of such mothers and the adaptation of the heart to infarction in animal experiments. Furthermore, we investigate whether hypercholesterolemia causes epigenetic changes in the heart that may be associated with adverse cardiac effects, whether these are inheritable, and if so, whether they can be reversed by medication or lifestyle interventions. We hope that our research will contribute to a detailed understanding of the cardiac effects of maternal metabolic abnormalities in the offspring and to the development of treatment possibilities.

AMBITIONS AND CAREER GOALS

I would like to serve society as a specialist worthy of the title of Doctor of Medicine, both in terms of expertise and humanity. In addition to research, I am also attracted to clinical medicine, so I wish to combine the two fields during my career.

HONORS AND PRIZES

2022 SZAOK Annual Student Research Conference – 2nd prize
2023 36th OTDK – 2nd prize
2023 TALENT Excellence List – bronze grade
2023 SZAOK Annual Student Research Conference – 2nd prize
2024 Viatrix Scholarship for Excellence – silver grade

PUBLICATIONS

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