

EMESE RÓZA MÁRKA



National Academy of Scientist Education, 4th year

Semmelweis University
Faculty of Medicine, 4th year

YEAR OF BIRTH

2000

FORMER SZENT-GYÖRGYI PUPIL

no

RESEARCH UNIT

Semmelweis University

SZENT-GYÖRGYI MENTOR

Marianna Török

JUNIOR MENTOR

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SPECIALIZATION

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SECONDARY SCHOOL

Hunter College High School
(NY, USA)

NAME OF TEACHER

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LANGUAGES

English / native
Spanish / intermediate

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

Regular physical exercise exerts beneficial effects on multiple organ systems, and these effects often manifest differently in males and females. While the physiological consequences of exercise are well established, their histological background remains less understood. My research aims to investigate exercise-induced histological differences in vascular structure across different organs, with particular emphasis on sex-related differences.

AMBITIONS AND CAREER GOALS

I have always been fascinated by the workings of the world and the human body, and my background in biophysics has made me especially drawn to interdisciplinary fields that unite science, medicine, and technology. My goal is to build a career where scientific discovery and human care come together.

HONORS AND PRIZES

2025 Semmelweis TDK Conference, II. place
2025 XXIX. Korányi Frigyes Tudományos Fórum, III. place

PUBLICATIONS

Hainzl, T., Nádasy, G. L., **Márka, E. R.**, Nagy, K., Kollarics, R., Tóké, A.-M., Oláh, A., Radovits, T., Merkely, B., Ács, N., Várbiro, S., Jósval, A., Török, M. (2025). Cerebral Resistance Artery Histological Remodeling After Training—Sex Differences. **Life** 15(8): 1304.