

Curriculum vitae

Name: Gabriella Marosi
Date of Birth: 1993.06.06.
Place of Birth: Budapest
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Education

2012-: Semmelweis University, Medical Faculty
2006-2012: Toldy Ferenc High School, Budapest
2000-2006: Csik Ferenc Primary School, Budapest

Languages

German: advanced
English: intermediate

Research

2013- : Undergraduate Researcher
Semmelweis University, Institute of Human Physiology and Clinical Experimental Research
topic: The physiological and pathophysiological role of hydrogen sulfide in the cardiovascular system
supervisor: Dr. Levente Kiss
2010-2012: Student Researcher
Semmelweis University, Department of Medical Chemistry, Molecular Biology and Pathobiochemistry, Link Group
topic: Structural changes of protein-protein interaction networks during aging
supervisor: Dániel Veres, Prof. Dr. Péter Csermely

Original articles

Dongó E, Benkő Z, Csizmazia Á, Marosi G, Grottke A, Jücker M, Schumacher U, Kiss L: H₂S preconditioning of human adipose tissue-derived stem cells increases their efficacy in an in vitro model of cell therapy for stimulated ischemia. *Life Sciences*, 2014. Sep. 15; 113(1-2):14-21

Posters

L Kiss, A Csizmazia, Z Benko, G Marosi, U Schumacher, E Dongo: Hydrogen sulphide treatment of human adipose derived stem cells increases their proliferation, decreases their mitochondrial activity and enhances their antioxidant defenses. *Frontiers in CardioVascular Biology Congress*, 2014. July 4-6

Ágnes Csizmazia, Zsolt Benkő, *Gabriella Marosi*, Udo Schumacher, Eleni Dongó, Levente Kiss: Beneficial effects of hydrogen sulphide treatment of human adipose derived stem cells in a cell-based model of cell therapy. FEPS, 2014. Aug. 27-30., Budapest

Ane S Dybvig, *Gabriella Marosi*, Zsuzsa Straky, Dávid Korda, Zoltán Benyó, Éva Ruisanchez, Levente Kiss: The role of hydrogen sulfide in enhanced sphingomyelinase induced vasorelaxation in db/db mice. 3rd European Conference on the Biology of Hydrogen Sulfide, 2015. May 3-6., Athens

Gabriella Marosi, Ane S Dybvig, Zsuzsa Straky, Dávid Korda, Zoltán Benyó, Éva Ruisanchez, Levente Kiss: Mechanisms of action of sphingomyelinase induced enhanced vasorelaxation in db/db mice. Bioactive Lipids in Cancer, Inflammation and Related Diseases, 2015. July 14., Budapest

Student conferences

XXXII. Hungarian National Undergraduate Researcher Competition, 2015. April 2., I. price

Frigyes Korányi Scientific Forum, 2015. March 12., co-author; III. price

Semmelweis International Students' Conference, 2015. February 12., co-author; II. price

Semmelweis University Undergraduate Researcher Competition, 2015. February 12., II. price

Frigyes Korányi Scientific Forum, 2014. March 7., Special award

Semmelweis University Undergraduate Researcher Competition, 2014. April 2-4., co-author

IX. National Student Researcher Competition, Békéscsaba, 2011. March 25-26.

Regional Student Researcher Competition, Vác, 2010; III. price

Other congresses

Congress of the Hungarian Physiologican Society, 2015. May 29., Szeged

Bioactive Lipids in Cancer, Inflammation and Related Diseases, 2015. July 14., Budapest

Awards

Richter Gedeon Talentum Foundation Award 2011-2012

Stephen W. Kuffler Research Foundation 2015

Hobbies

basketball, reading, ballroom dancing

Research objectives

My research is focused on the effects of hydrogen sulfide on blood vessels of diabetic and healthy mice. Hydrogen sulphide (H₂S) is an endogenous gas that has potent relaxant effect on vascular smooth muscles, but the mechanism behind that is not completely understood. As the first step of the experiment I prepared the thoracic aorta of the animals, then I measured the

tone of the vessels with a myograph while using different vasoactive mediators. Our results show, that the hydrogen sulfide has increased vasorelaxant effect on the vessels of type two diabetic mice. This effect can be related to the inhibition of phosphodiesterase (PDE) leading to an increase of cGMP levels. The results provide a novel approach to enhance vasorelaxation in diabetes by altering PDE activity via hydrogen sulphide.