<center>CURRICULUM VITAE</center>

Name: Gergő Porkoláb

Place and date of birth: Szeged, 1996.06.14.

E-mail: porkolab.gergo96@gmail.com

EDUCATION

2020-	PhD student, Doctoral School in Biology, University of Szeged
2018-2020	Biology MSc, University of Szeged
2015-2018	Biology BSc, University of Szeged
2011-2015	István Tömörkény Secondary School, Szeged

RESEARCH ACTIVITY

Topic:	Investigation of therapeutic interventions on a human stem cell-derived blood-brain barrier modell and brain organoids
Mentors:	Prof. Mária Deli and Dr. Szilvia Veszelka
Institute:	Biological Barriers Research Group, Institute of Biophysics, Biological Research Centre, Eötvös Loránd Research Network

Research interests: My aim is to better understand the development and maturation of the blood-brain barrier (BBB) at the molecular level. In the project funded by the academy, we focus on the cellular signaling pathways that govern the formation of the BBB and how these pathways might interact with each other. Taking a step further, would like to apply this knowledge to develop a human stem cell-derived BBB model that best recapitulates the functional complexity of our brain capillaries. Combining our BBB model with brain organoids will allow us to create a complex human model system for testing the brain penetration of various drugs and therapeutic nanoparticles in a more reliable way, thereby helping to bridge the translational gap between animal studies and human clinical trials.

LANGUAGES

English	C1
German	B2

AWARDS AND SCHOLARSHIPS

- Stephen W. Kuffler Research Grant (2022)

- György Romhányi Foundation – support for participation at a conference (2022)

- New National Excellence Program scholarship for the academic year of 2021/22. (2021)

- Brains for Brain Foundation – support for participation at a conference (2021)

- 35. National Scientific Students' Associations Conference – 2nd prize (2021)

- EUGLOH Annual Student Research Conference – 1st prize (2020)

- Richter Centennial Foundation – short-term research fellowship (2020)

- Scientific Students' Associations Conference, University of Szeged – 2nd prize (2020)

- New National Excellence Program scholarship for the academic year of 2020/21. (2020)

- National Academy of Scientist Education – Szent-Györgyi PhD Student Scholarship (2020-)

- Excellent Student of the Faculty, Faculty of Science and Informatics, University of Szeged (2020)

- Talent Scholarship, University of Szeged – golden grade (2020)

- József Sófi Foundation, University of Szeged – grand prix, university category (2020)

- National Academy of Scientist Education – Student of the Year (2019)

- New National Excellence Program scholarship for the academic year of 2019/20. (2019)

- National Higher Educational Scholarship for the academic year of 2019/20. (2019)

- Stephen W. Kuffler Research Scholarship (2019)

- International Student Congress in Biomedical Sciences – 1st prize (2019)

- XXXIV. National Scientific Students' Associations Conference – 2nd prize (2019)

- József Sófi Foundation, University of Szeged – 1st prize, Biology MSc category (2019)

- Talent Scholarship, University of Szeged – silver grade (2019)

- New National Excellence Program scholarship for the academic year of 2018/19. (2018)

- National Higher Educational Scholarship for the academic year of 2018/19. (2018)

- Scientific Students' Associations Conference, University of Szeged – 1st prize (2018)

- Scientific Students' Associations Conference, University of Szeged – special prize (2018)

- Scientific Students' Associations Conference, University of Szeged – special prize (2017)

- National Higher Educational Scholarship for the academic year of 2017/18. (2017)

- National Academy of Scientist Education – Szent-Györgyi Student Scholarship (2016-2020)

- Kazinczy-medal (2015)

FIRST AUTHOR RESEARCH ARTICLES:

- Veszelka S*, Mészáros M*, **Porkoláb G***, Szecskó A, Kondor N, Ferenc G, Polgár TF, Katona G, Kóta Z, Kelemen L, Páli T, Vigh JP, Walter FR, Bolognin S, Schwamborn JC, Jan JS, Deli MA. A Triple Combination of Targeting Ligands Increases the Penetration of Nanoparticles across a Blood-Brain Barrier Culture Model. *Pharmaceutics* 2022, **14**(1), 86

- **Porkoláb G**, Mészáros M, Tóth A, Szecskó A, Harazin A, Szegletes Z, Ferenc G, Blastyák A, Mátés L, Rákhely G, Deli MA, Veszelka S. Combination of Alanine and Glutathione as Targeting Ligands of Nanoparticles Enhances Cargo Delivery into the Cells of the Neurovascular Unit. *Pharmaceutics* 2020, **12**(7), 635

  * shared first authorship

CO-AUTHOR RESEARCH ARTICLES:

- Lee MH, Thomas JL, Shih YP, Li YA, Lin CY, Ooya T, Barna L, Mészáros M, Harazin A, **Porkoláb G**, Veszelka S, Deli MA, Jan JS, Lin, HY. Cellular therapy using epitope-imprinted composite nanoparticles to remove α-synuclein from an *in vitro* model. *Materials & Design* (under review)

- Váczi S, Barna L, Harazin A, Mészáros M, **Porkoláb G**, Zvara Á, Ónody R, Földesi I, Veszelka S, Penke B, Fülöp L, Deli MA, Mezei Z. S1R agonist modulates rat platelet eicosanoid synthesis and aggregation. *Platelets* 2021, 1-10

- Topal GR, Mészáros M, **Porkoláb G**, Szecskó A, Polgár TF, Siklós L, Deli MA, Veszelka S, Bozkir A. ApoE-Targeting Increases the Transfer of Solid Lipid Nanoparticles with Donepezil Cargo across a Culture Model of the Blood-Brain Barrier. *Pharmaceutics* 2021, **13**(1), 38

- Mészáros M, **Porkoláb G**, Kiss L, Pilbat AM, Kóta Z, Kupihár Z, Kéri A, Galbács G, Siklós L, Tóth A, Fülöp L, Csete M, Sipos Á, Hülper P, Sipos P, Páli T, Rákhely G, Szabó-Révész P, Deli MA, Veszelka S. Niosomes decorated with dual ligands targeting brain endothelial transporters increase cargo penetration across the blood-brain barrier. *European Journal of Pharmaceutical Sciences* 2018, **123**, 228-240

Szeged, 2022. 04. 12.

Gergő Porkoláb