

Curriculum Vitae

István Vadász Professor, Dr. biol. hom., dr. med.
d.o.b. August 24th, 1977, in Szolnok, Hungary

University Education

2020 Doctorate, JLU
2002 - 2005 International Graduate Program “Molecular Biology and Medicine of the Lung” (MBML), Justus Liebig University (JLU), Giessen, Germany
2001 Doctorate Medicine, University of Szeged, Szeged, Hungary
1995 - 2001 Studies of Medicine, Albert Szent-Györgyi School of Medicine, University of Szeged, Szeged, Hungary

Scientific Career

Since 2024 Chair of the Specialized and Organ-specific Working Group (FOSA) - Intensive Care Medicine of the Network University Medicine (NUM)
Since 2023 W2 professorship, JLU
Since 2021 Vice chair, Department of Internal Medicine, JLU
2021 Short-listed (secundo loco) W3 professorship and chair of the Department of Internal Medicine, Johannes Kepler University, Linz, Austria
2021 -2025 Adjunct associate professor, Division of Pulmonary and Critical Care Medicine, Feinberg School of Medicine, Northwestern University, Chicago, Illinois, U.S.A.
Since 2020 Managing senior physician and head of the Intensive Care Unit, Department of Internal Medicine, JLU
2020-2021 Adjunct assistant professor, Division of Pulmonary and Critical Care Medicine, Feinberg School of Medicine, Northwestern University, Chicago, Illinois, U.S.A.
Since 2018 Senior physician, Department of Internal Medicine, JLU
Since 2018 Board certification, Infectious diseases (LÄK Hessen)
Since 2017 Board certification, Pulmonology (LÄK Hessen)
Since 2015 Board certification, Critical care medicine (LÄK Hessen)
Since 2013 Board certification, Internal medicine (LÄK Hessen)
Since 2012 Faculty member of the German Center for Lung Research (DZL)
Since 2011 Faculty member of the Excellence Cluster Cardio-Pulmonary System/Cardio-Pulmonary Institute (ECCPS/CPI)
Since 2010 Faculty member of the Universities of Giessen and Marburg Lung Center (UGLMC)
Since 2008 Faculty member of the International Graduate Program “Molecular Biology and Medicine of the Lung” (MBML)
Since 2007 Independent research group leader, Department of Internal Medicine, JLU
2007 - 2013 Internship and Residency, Department of Internal Medicine, JLU
2005 - 2006 Postdoctoral Fellow, Division of Pulmonary and Critical Care Medicine, Feinberg School of Medicine, Northwestern University, Chicago, Illinois, U.S.A.

Awards and Honors

Since 2021 Associate editor, *Frontiers in Immunology*
Since 2018 Editorial board member, *American Journal of Physiology – Lung Cellular and Molecular Physiology*
Since 2017 Editorial board member, *American Journal of Respiratory Cell and Molecular Biology*
2016 - 2021 Editorial board member, *Frontiers in Immunology*
2012 - 2016 ECCPS Clinical Career Research Grant
Since 2010 Editorial board member, *American Journal of Respiratory and Critical Care Medicine*
2010 - 2012 Else Kröner Fresenius Memorial Stipend
2007 - 2013 Editorial board member, *Proceedings of the American Thoracic Society*

2007 - 2008 Postdoctoral research fellowship, Alexander von Humboldt Foundation
2001 Prize for "Outstanding Dissertation", Albert Szent-Györgyi School of Medicine

Citation Record

Total citations: 5.092; h-index: 42; h-index since 2021: 30 (Google Scholar March 10th, 2026)

Top-10 selected Publications

Vadász I, Cummins EP, Brotherton DH, Casalino-Matsuda SM, Dada LA, Green O, King DT, Kryvenko V, Shigemura M, Sporn PHS, Strowitzki MJ, Cann MJ, Sznajder JI. Sensing molecular carbon dioxide: a translational focus for respiratory disease. **Physiol Rev** 2025;105(4):2657-2691. doi: [10.1152/physrev.00022.2024](https://doi.org/10.1152/physrev.00022.2024).

Schmidt G, Martens A, Koch C, Markmann M, Schneck E, Matt U, Hecker M, Tello K, Wolff M, Sander M, **Vadász I**. Nucleated red blood cells are a late biomarker in predicting intensive care unit mortality in patients with COVID-19 acute respiratory distress syndrome: an observational cohort study. **Front Immunol** 2024;15:1313977. doi: [10.3389/fimmu.2024.1313977](https://doi.org/10.3389/fimmu.2024.1313977).

Kryvenko V, Wessendorf M, Tello K, Herold S, Morty RE, Seeger W, **Vadász I**. Hypercapnia induces inositol-requiring enzyme 1 α -driven endoplasmic reticulum-associated degradation of the Na,K-ATPase β -subunit. **Am J Respir Cell Mol Biol** 2021; 65(6):615-629. doi: [10.1165/rcmb.2021-0114OC](https://doi.org/10.1165/rcmb.2021-0114OC).

Vadász I, Husain-Syed F, Dorfmueller P, Roller FC, Tello K, Hecker M, Morty RE, Gattenlöhner S, Walmrath HD, Grimminger F, Herold S, Seeger W. Severe organising pneumonia following COVID-19. **Thorax** 2021; 76(2):201-204. doi: [10.1136/thoraxjnl-2020-216088](https://doi.org/10.1136/thoraxjnl-2020-216088).

Vohwinkel CU, Buchäcker Y, Al-Tamari HM, Mazzocchi LC, Eltzschig HK, Mayer K, Morty RE, Herold S, Seeger W, Pullamsetti SS, **Vadász I**. Restoration of megalin-mediated clearance of alveolar protein as a novel therapeutic approach for acute lung injury. **Am J Respir Cell Mol Biol** 2017; 57(5):589-602. doi: [10.1165/rcmb.2016-0358OC](https://doi.org/10.1165/rcmb.2016-0358OC).

Peters DM, **Vadász I**, Wujak L, Wygrecka M, Olschewski A, Becker C, Herold S, Papp R, Mayer K, Rummel S, Brandes RP, Günther A, Waldegger S, Eickelberg O, Seeger W, Morty RE. TGF- β directs trafficking of the epithelial sodium channel ENaC which has implications for ion and fluid transport in acute lung injury. **Proc Natl Acad Sci U S A** 2014; 111(3):E374-83. doi: [10.1073/pnas.1216382110](https://doi.org/10.1073/pnas.1216382110).

Buchäcker Y, Rummel S, Vohwinkel CU, Gabrielli NM, Grzesik BA, Mayer K, Herold S, Morty RE, Seeger W, **Vadász I**. Megalin mediates transepithelial albumin clearance from the alveolar space of intact rabbit lungs. **J Physiol** 2012; 590(20):5167-81. doi: [10.1113/jphysiol.2012.233403](https://doi.org/10.1113/jphysiol.2012.233403).

Vadász I, Dada LA, Briva A, Trejo HE, Welch LC, Chen J, Tóth PT, Lecuona E, Witters LA, Schumacker PT, Chandel NS, Seeger W, Sznajder JI. AMP-activated protein kinase regulates CO₂-induced alveolar epithelial dysfunction in rats and human cells by promoting Na,K-ATPase endocytosis. **J Clin Invest** 2008; 118(2):752-62. doi: [10.1172/JCI29723](https://doi.org/10.1172/JCI29723).

Vadász I, Schermuly RT, Ghofrani HA, Rummel S, Wehner S, Mühlendorfer I, Schäfer KP, Seeger W, Morty RE, Grimminger F, Weissmann N. The lectin-like domain of tumor necrosis factor- α improves alveolar fluid balance in injured isolated rabbit lungs. **Crit Care Med** 2008; 36(5):1543-50. doi: [10.1097/CCM.0b013e31816f485e](https://doi.org/10.1097/CCM.0b013e31816f485e).

Vadász I, Morty RE, Kohstall MG, Olschewski A, Grimminger F, Seeger W, Ghofrani HA. Oleic acid inhibits alveolar fluid reabsorption: a role in acute respiratory distress syndrome? **Am J Respir Crit Care Med** 2005; 171(5):469-79. doi: [10.1164/rccm.200407-954OC](https://doi.org/10.1164/rccm.200407-954OC).