

Projects VEGA (Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of The Slovak Republic and the Slovak Academy of Science)

▪ **Project VEGA 1/0031/11**

The role of TRPA1 and TRPM8 ion channels in the modulation of respiratory reflexes by nasal mucosal inflammation and environmental air pollutants.

Principal investigator: Doc. MUDr. Jana Plevková, PhD.

Duration of the project: 2011-2013

▪ **Project VEGA 1/0037/11**

Mechanisms of activation and sensitization of esophageal nociceptors induced by the action of adenosine.

Principal investigator: Doc. RNDr. Mariana Brozmanová, PhD.

Duration of the project: 2011-2013

▪ **Project VEGA 1/0424/12**

The role of neurotrophic factors in the pathogenesis of visceral hypersensitivity – translational studies.

Principal investigator: Prof. MUDr. Miloš Tatár, CSc.

Duration of the project: 2012-2014

▪ **Project VEGA 1/0226/15**

The role of the vagus nerves in visceral pain.

Principal investigator: Prof. MUDr. Miloš Tatár, CSc.

Duration of the project: 2015-2017

▪ **Project VEGA 1/0107/15**

Histamine H3 and H4 receptor antagonists and their potential antitussive effects in a guinea pig model of upper respiratory tract inflammation.

Principal investigator: Prof. MUDr. Jana Plevková, PhD.

Duration of the project: 2014-2017

▪ **Project VEGA 1/0070/15**

Immunological mechanisms of neural hypersensitivity in eosinophilic diseases of the gastrointestinal system.

Principal investigator: Doc. RNDr. Mariana Brozmanová, PhD.

Duration of the project: 2015-2018

▪ **Project VEGA 1/0334/18**

Analysis of the time dependence of the pathogenesis of Parkinson's disease in the peripheral and central nervous systems.

Principal investigator: Mgr. Michal Pokusa, PhD.

Duration of the project: 2018-2020

▪ **Project VEGA 1/0306/18**

Mechanisms of treatment-resistant pruritus.

Principal investigator: Prof. MUDr. Miloš Tatár, CSc.

Duration of the project: 2018-2021

▪ **Project VEGA 1/0260/18**

Characterization of sexual dimorphism of the cough response in guinea pigs – creation and validation of a model for cough research taking into account both sexes of experimental animals.

Principal investigator: Prof. MUDr. Jana Plevková, PhD.

Duration of the project: 2018-2021

▪ **Project VEGA 1/0334/18**

Analysis of the time dependence of the pathogenesis of Parkinson's disease in the peripheral and central nervous systems.

Principal investigator: Mgr. Michal Pokusa, PhD.

Duration of the project: 2018-2020

▪ **Project VEGA 1/0020/19**

Voltage-gated sodium channels as target molecules for inhalation therapy of excessive cough.

Principal investigator: doc. RNDr. Mariana Brozmanová, PhD.

Duration of the project: 2019-2022

▪ **Project VEGA 1/0299/20**

Study of the impact of preischemia and global cerebral ischemia on mitochondrial dynamics proteins.

Principal investigator: Mgr. Michal Pokusa, PhD.

Duration of the project: 2020-2023

▪ **Project VEGA 1/0371/21**

New approaches for detecting pathological forms of alpha-synuclein in digestive tract tissues.

Principal investigator: Mgr. Alžbeta Kráľová Trančíková, PhD.

Duration of the project: 2021-2024

▪ **Project VEGA 1/0261/22**

Preparation of molecular tools enabling the monitoring of the spatiotemporal dynamics of SARS-CoV-2 entry into the cell using high-resolution 3D microscopy in real time.

Principal investigator: RNDr. Vincent Lučanský, PhD.

Duration of the project: 2022-2024

▪ **Project VEGA 1/0041/23**

Probiotics and paraprobiotics – modulation of the respiratory tract microbiome and its importance for the validation of animal models of cough in experimental respirology.

Principal investigator: MUDr. Tomáš Buday, PhD.

Duration of the project: 2023-2026

▪ **Project VEGA 1/0024/23**

Monitoring selected biomarkers and the role of afferent nerve endings of the respiratory tract in the pathogenesis of post-COVID cough.

Principal investigator: prof. MUDr. Renáta Péčová, PhD., MPH

Duration of the project: 2023-2026

▪ **Project VEGA 1/0065/23**

Mechanisms of pain and itching induced by bacterial toxins produced by *Staphylococcus aureus*.

Principal investigator: Mgr. Danica Jurčáková, PhD.

Duration of the project: 2023-2026

▪ **Project VEGA 1/0030/24**

Potential of voltage-gated sodium channel blockers in affecting allergic rhinitis and dermatitis associated with hypersensitivity cough.

Principal investigator: prof. RNDr. Mariana Brozmanová, PhD.

Duration of the project: 2024-2027

- **Project VEGA 1/0085/24**

Modulation of ATP-dependent potassium ion channel function in parkinsonian-type neurodegeneration.

Principal investigator: RNDr. Michal Pokusa, PhD.

Duration of the project: 2024-2027