

Academic Curriculum vitae
LUKAS GUDAITIS
Work email: lukas.gudaitis@lsmun.lt

Lithuanian University of Health Sciences, Medical academy, Institute of Cardiology. Laboratory of Molecular Cardiology. Room 216. Sukilėlių pr. 15, LT-50162 Kaunas, Lithuania.

WORK EXPERIENCE

Junior researcher

Lithuanian University of Health Sciences, Medical academy, Institute of Cardiology, Laboratory of Molecular Cardiology (Kaunas, Lithuania)

2015 – Present

Laboratory director: Prof. Habil. Dr. Vaiva Lesauskaitė.

PARTICIPATION IN SCIENTIFIC GRANTS

2018–2018	Investigator in the project „Modeling voltage gating properties of gap junction channels, formed of connexin protein“ supported by Association „Santaka Valley“ (project number: Koneksinas PP22/182).
2021–2021	Investigator in the project „Modelling of gap junctional conductance at a single-channel level“ supported by Association „Santaka Valley“ (project number: Jungtis PP22/182).
2022–Present	Investigator in the project „Modeling of biophysical properties of gap junction channel and hemichannel gating“ supported by Research Council of Lithuania (project number: P-MIP-22-141).

EDUCATION

Doctoral degree (PhD) in Biophysics (study area: Natural Sciences)

Lithuanian University of Health Sciences (Kaunas, Lithuania)

2016 – 2022

Doctoral thesis title: „INFLUENCE OF CONNEXIN-36 N-TERMINAL AMINO ACIDS ON BIOPHYSICAL PROPERTIES OF GAP JUNCTION CHANNELS“.

Scientific supervisors: Prof. Habil. Dr. Feliksas Bukauskas† (2016 – 2017), Prof. Dr. Vytautas K. Verselis (2017 – 2022).

Master's degree in Genetics (study area: Biomedical sciences)

Vilnius University (Vilnius, Lithuania)

2012 – 2014

Bachelor's degree in Public Health (study area: Biomedical sciences)

PUBLICATIONS

1. Kraujalis, Tadas; **Gudaitis, Lukas**; Kraujalienė, Lina; Šnipas, Mindaugas; Palacios-Prado, Nicolás; Veršelis, Vytas K. The Amino Terminal Domain and Modulation of Connexin36 Gap Junction Channels by Intracellular Magnesium Ions : original research article // *Frontiers in physiology*. 2022, vol. 13, p. 1-18.
2. Šnipas, Mindaugas; Kraujalis, Tadas; Maciūnas, Kęstutis; Kraujalienė, Lina; **Gudaitis, Lukas**; Veršelis, Vytautas K. Four-State Model for Simulating Kinetic and Steady-State Voltage-Dependent Gating of Gap Junctions // *Biophysical journal*. 2020, vol. 119, no. 8, p. 1640-1655.

MAIN CONFERENCES

1. **Gudaitis, Lukas**; Šnipas, Mindaugas; Kraujalienė, Lina; Kraujalis, Tadas; Verselis, Vytautas Kazimieras. An Impact of the Amino Terminal Domain on Voltage Gating of Connexin36 Gap Junction Channels // *International Gap Junction Conference (IGJC 2022)* : A Coruña, Spain, July 16-20, 2022 : Abstracts. A Coruña, 2022, p. 78-79.
2. Kraujalis, Tadas; **Gudaitis, Lukas**; Kraujalienė, Lina; Šnipas, Mindaugas; Palacios-Prado, Nicolás; Veršelis, Vytautas Kazimieras. The Amino Terminal Domain of Connexin36 is Involved in Regulation of Gap Junction Channels by Intracellular Magnesium Ions // *International Gap Junction Conference (IGJC 2022)* : A Coruña, Spain, July 16-20, 2022 : Abstracts. A Coruña, 2022, p. 60-61.
3. Šnipas, Mindaugas; Kraujalis, Tadas; Maciūnas, Kęstutis; Kraujalienė, Lina; **Gudaitis, Lukas**; Verselis, Vytautas Kazimieras. Mathematical-Computational Model for Simulating Kinetic and Steady-State Voltage-Dependent Gating of Gap Junctions // *International Gap Junction Conference (IGJC 2022)* : A Coruña, Spain, July 16-20, 2022 : Abstracts. A Coruña, 2022, p. 71-71.
4. **Gudaitis, Lukas**; Šnipas, Mindaugas; Kraujalienė, Lina; Kraujalis, Tadas; Verselis, Vytautas Kazimieras. Influence of N-terminus amino acids on gating polarity of connexin 36 gap junctions // *Vita Scientia* : 4th Vita Scientia - International Life Sciences conference : 3rd January 2020, Vilnius, Lithuania.
5. **Gudaitis, Lukas**; Šnipas, Mindaugas; Kraujalienė, Lina; Kraujalis, Tadas; Verselis, Vytautas Kazimieras. Influence of N-terminus amino acids on gating polarity of connexin 36 gap junctions // *12th Federation of European Neuroscience Societies Virtual Forum (FENS Forum 2020)* : Glasgow, 11-15 July 2020.
6. **Gudaitis, Lukas**; Šnipas, Mindaugas; Kraujalienė, Lina; Kraujalis, Tadas; Verselis, Vytautas Kazimieras. Koneksino 36 formuojamų plyšinių jungčių kanalų užsidarymo priklausomybė nuo įtampos poliškumo // 12-oji jaunųjų mokslininkų konferencija "BIOATEITIS: gamtos ir gyvybės mokslų perspektyvos" : programa ir pranešimų santraukos : 2019 m. gruodžio 11 d., Kaunas.
7. Kraujalis, Tadas; **Gudaitis, Lukas**; Šnipas, Mindaugas; Rimkutė, Lina. The Role of the amino terminal domain in modulation of connexin36 gap junction channels by intracellular pH and

magnesium ions concentration // European biophysics journal: EBJ : JOINT 12th EBSA congress and 10th ICBP - IUPAP congress : July 20-24, 2019, Madrid, Spain.

8. Šnipas, Mindaugas; Kraujalis, Tadas; Maciūnas, Kęstutis; Rimkutė, Lina; Gudaitis, Lukas; Verselis, Vytautas Kazimieras. Four state model for efficient simulation of gap junction channel voltage gating kinetics // European biophysics journal: EBJ : JOINT 12th EBSA congress and 10th ICBP - IUPAP congress : July 20-24, 2019, Madrid, Spain.

9. Gudaitis, Lukas; Kraujalis, Tadas; Rimkutė, Lina; Maciūnas, Kęstutis; Šnipas, Mindaugas; Verselis, Vytautas Kazimieras. Influence of N-terminus amino acids on sensitivity of connexin-36 gap junctions to voltage gating // Baltic Biophysics Conference : 4th-5th October, 2018, Kaunas.

10. Gudaitis, Lukas; Kraujalis, Tadas; Rimkutė, Lina; Maciūnas, Kęstutis; Šnipas, Mindaugas; Verselis, Vytautas Kazimieras; Bukauskas, Feliksas F. The Effect of low intracellular pH and magnesium ion concentration on the conductance of gap junction formed by Connexin 36 and its mutants // 1st International doctoral students' conference "Science for Health" : book of abstracts : April 13, 2018, Kaunas, Lithuania.

11. Gudaitis, Lukas. The Effect of low intracellular pH and magnesium ion concentration on the conductance of gap junctions formed by Connexin 36 and its mutants // Конференция «Фундаментальные научные исследования, выполняемые молодыми научными сотрудниками и докторантами – поощрение академической мобильности среди студентов и сотрудников» : 20-21 ноября 2018 г. Казахстан, Алма-Аты.

ADDITIONAL INFORMATION

Presentation of Bachelor's degree Final Thesis at Vilnius University Faculty of Medicine Students' Scientific Assembly (VU MF SMD) 64th conference.

During Master's degree studies I received a certificate, which allows me to work with laboratory (experimental) animals in Lithuania and EU countries (study courses meet the requirements of EU directive 2010/63/EU and FELASA C category).

In 2015, I passed IELTS Academic English language exam (overall score: 7 out of max. 9).

In 2017, 2018 and 2019 additional funding was received for the ongoing doctoral studies research. Funding source: a competition organized by the Science Foundation of the Lithuanian University of Health Sciences to support research conducted by doctoral students of the University.