

# Curriculum vitae

Ádám Lénárt

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## Education

2011-2017 ELTE Bolyai János Practice Primary and Secondary Grammar School, Szombathely

2017- Semmelweis University, Faculty of Medicine, Budapest

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## Research experience – Member of the university's Student Scientific Association

Sep 2019 – Department of Anatomy, Histology and Embriology, Semmelweis University, Faculty of Medicine

tutor: Tamás Ruttkay MD

topic: Dissection for educational purposes

Jan 2020 – Translational Medicine Institute, Semmelweis University, Faculty of Medicine

tutors: Zoltán Benyó MD, PhD, Dsc; József Péter Molnár MD

topic: The signaling pathways of the urinary bladder

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## Conferences and Prizes

- Prize, Semmelweis Annual Scientific Conference 2021, Surgery A section
  - Prize, Semmelweis Annual Scientific Conference 2022, Physiology, pathophysiology section
  - Prize, XXV. Korányi Frigyes Scientific Forum, Translational Medicine and Diagnostic section
  - Special award, 28. Scientific Student Conference of Targu Mures, Urology section
  - Attendance, 35. National Scientific Students Association Conference, Physiology, pathophysiology 5. section
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## Publication

*Borsodi Kinga, Balla Helga, Molnár Péter József, **Lénárt Ádám**, Kenessey István, Horváth András, Keszthelyi Attila, Romics Miklós, Majoros Attila, Nyirády Péter, Stefan Offermans, Benyó Zoltán, Signaling Pathways Mediating Bradykinin-Induced Contraction in Murine and Human Detrusor Muscle, Frontiers in Medicine, section Geriatric Medicine (IF: 5.093)*

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## Awards and honors

- Stephen W. Kuffler Research Scholarship 2022
  - National Higher Education Grant, Hungarian Ministry of Human Capacities 2021/2022
  - Supplementary Research Excellence Grant 2021-2023
  - Hungarian Health Management Company – Vaccination Campaign, The way you would do, I. prize
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## Language skills

English, German

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## Other activities

Member of the University's Football Team, two III. places in the annual Medical Cup

2017-2019 Member of Korányi Frigyes College for Advanced Studies

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## Research Interest

I started doing research in the so called urinary bladder work team in the Institute of Translational Medicine. With time I got deeper and deeper into the physiology and pathophysiology of the urinary bladder that I find very interesting.

Overactive bladder syndrome (OAB) is a very common urological disease. Its main symptom is urgency with or without incontinence which greatly impairs the quality of life. The pharmacological therapy of OAB is not specific enough thus it has a lot of side effects. The etiology of OAB is not totally understood yet but we hypothesized that inflammatory mediators like isoprostanes and bradykinin have a role in the development of this disease. In our research we investigated these mediators and their signaling pathways in mice and human urinary bladder samples. We got the human samples from cystectomy surgeries in the Urology Clinic of Semmelweis University. Isoprostanes and bradykinin have a huge effect on the function of the urinary bladder in both species. We also think that the transient receptor potential vanilloid 4 (TRPV4) has a role in OAB according to our promising results which we have until now but it needs further investigation.

Our new research which we have just started is very promising. We do cystometry in mice in vivo therefore the neurological connections are intact. We have a lot of plans what we could investigate with this method so I am full of hope.