

PERSONAL INFORMATION

Mónika Tünde Sztretye

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Date of birth 22. February 1981



WORK EXPERIENCE

- 2022 - present **research associate**
Cell Physiology Research Group, Eötvös Loránd Research Network (ELKH)
- 2011 – present **research associate**
University of Debrecen, Faculty of Medicine, Department of Physiology
- 2014 **visiting research fellow**
Universitätsspital Basel, Switzerland
- 2007 – 2011 **postdoc**
Rush University Medical Center, Chicago, IL, USA
- 2005 – 2007 **junior research associate**
Medical University of Debrecen, Department of Physiology
- Other 2015-2016 maternity leave

EDUCATION AND TRAINING

- 2010 **PhD**
University of Debrecen Medical and Health Science Center, Faculty of Medicine, Department of Physiology
Thesis: Modulation and alteration of the elementary calcium release events under normal and pathological conditions
- 2005-2007 **PhD student**
Medical University of Debrecen, Department of Physiology
- 2003 – 2005 **MSc in Biophysics**
University of Oradea (Romania), Faculty of Sciences, Physics of Biomedical Explorations and Therapies section
Thesis: Theoretical basis for the calculation of the absorbed doses in photon beams radiotherapy
- 1999 – 2003 **Physics-Chemistry License Degree**
University of Oradea (Romania), Faculty of Sciences Physics – Chemistry section
Thesis: A comparative study for the distribution of absorbed dose in tissue at irradiation of rhinopharyngeal tumors with fascicles of different energies

PERSONAL SKILLS

Mother tongue Hungarian

Other language(s)

UNDERSTANDING

SPEAKING

WRITING

	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Romanian	C2	C2	C2	C2	C2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference for Languages

Communication skills I have excellent communication skills both verbally and in writing which I actively use to establish and maintain collaborations with domestic and foreign research groups.

Organizational / management skills I pride myself with sense of responsibility, opinion-forming skills, organizational skills, consensus-oriented cooperation, consensus-oriented decision-making, problem-solving skills, team spirit, loyalty, conflict management skills, active monitoring, planning skills, team skills, balanced self-confidence, positive self-awareness, coordination skills.

Job-related skills I pride myself with excellent problem-solving skills and to be a result orientated person. I have many years of experience, which I gained in a responsible and challenging environment. I have experience in handling experimental animals and conducting animal experiments (Laboratory Animal Science and Welfare level EU-B, certificate no. 430/B/2022/DEMÁB)

Computer skills Microsoft Office™, Sigma Plot

EDUCATIONAL ACTIVITIES

Teaching experience Medical physiology for general medicine and dentistry students - practical since 2011 in Hungarian and English
 Cell physiology lecture for molecular biology students since 2019 in Hungarian and English
 Human physiology practical and seminars for pharmacy students since 2011 in Hungarian and English
 Thesis supervision of 2 PhD students

Visiting professorship Visiting scientist Universitatsspital Basel Department of Biomedicine in 2014

PUBLIC ACTIVITIES

Awards 2023 Hungarian Academy of Sciences: Youth International Conference Scientific Application
 2019 Short research visit to Siena, Italy (prof. Dr. Vincenzo Sorrentino) - Italian Cultural Institute Budapest
 2018 Hungarian Physiological Society young investigator award
 2014 European Young Physiologist Symposium award (Budapest, Hungary)
 2013 FEPS-IUPS travel award (Birmingham, UK)

SCIENTIFIC ACTIVITIES

Research interests Electromechanical coupling of striated muscles.
 Optical detection of intracellular calcium concentration changes, investigation of calcium homeostasis in excitable cells.
 Functional investigation of ion channels during muscle activity using electrophysiological methods and confocal microscopy.

The role of the endocannabinoid system in skeletal muscle function.
 The role of mitochondria in muscle diseases; antioxidants.

Memberships

Hungarian Physiological Association since 2007.
 American Biophysical Society since 2011.
 Member of the Public Board of the Hungarian Academy of Sciences since 2021.

Research grants

2022-2026 “*NKFIH FK_22 grant*” – lead scientist (title: **Investigating the role of the skeletal endocannabinoid system in health and disease** ID: **FK 142481**)
 2022 „NKFIH Mec_R_22 travel grant – lead scientist (title: **The role of store operated calcium entry in healthy and diseased mouse skeletal muscle cells**)
 2022-2023 “*TÉT grant*” – lead scientist (title: **Assessing the ability of cannabinoids to correct the calcium fluxes in skeletal muscle fibers from mdx mice**, ID: 2019-2.1.11-TÉT-2019-00102)
 2021-2022 “*TÉT grant*” – co-researcher (title: **The role of the skeletal endocannabinoid system in health and disease**, ID: 2019-2.1.11-TÉT-2019-00063)
 2020-2022 Erasmus+ teachers mobility, University of Oradea, Romania
 2021 „*University of Debrecen – Bridging fund* research grant (3 M HUF)
 2020-2021 „*University of Debrecen –Support for young teachers/researchers to initiate PhD topics* (1.5 M HUF)
 2018–2021 “*NKFIH PD_18 grant*” – lead scientist (title: **Carotenoids, as biological mediators responsible for enhanced skeletal muscle function**; ID: **PD 128370**)
 2014–2018 “*NKFIH PD_14 grant*” – lead scientist (title: **The role of store operated calcium entry in healthy and diseased mouse skeletal muscle cells**, ID: **PD 108476**)
 2018 “*Bolyai+ Higher Education Research fellowship*” (Ministry of Innovation and Technology, New National Excellence Program; title: **Investigating the role of mitochondria and store-operated calcium entry in healthy and diseased skeletal muscle fibers**, ID: **ÚNKP-18-4-DE-157**)
 2016-2019 „*Bolyai János Research fellowship*” (Hungarian Academy of Sciences) (title: **Investigating the role of mitochondria and store-operated calcium entry in healthy and diseased skeletal muscle fibers** ; ID: **BO/00929/16**)
 2014 “*SCIEX-NMS*” research fellowship (8 months) (title: **JP-45 variants as functional modifiers of the MH phenotype**)
 2005-2006 “Young researcher” - European Research Training network on skeletal muscle – The sixth framework programme (FP6) Medical University of Debrecen, Department of Physiology

Research publications

<https://scholar.google.com/citations?user=gKgRhN0AAAAJ&hl=en>
 MTMT ID: 10027648
 ORCID: 0000-0002-5946-6986