

PERSONAL INFORMATION **Mónika Tünde Sztretye**

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WORK EXPERIENCE

2022 - present **Research Associate**

HUN-REN-DE Cell Physiology Research Group, University of Debrecen, Faculty of Medicine, Department of Physiology

2011 – present **Research Associate**

University of Debrecen, Faculty of Medicine, Department of Physiology

2014 **Visiting Researcher**

Universitatsspital Basel, Switzerland

2007 – 2011 **Postdoctoral Researcher**

Rush University Medical Center, Chicago, IL, USA

2005 – 2007 **Research Assistant**

University of Debrecen, Medical and Health Science Center, Department of Physiology

Other **2015-2016 maternity leave**

EDUCATION

2010 **PhD degree**

University of Debrecen, Doctoral School of Molecular Medicine, Physiology-Neurobiology doctoral programme (Summa Cum Laude qualification; diploma number: 56/2010)

2005-2007 **PhD student**

University of Debrecen, Medical and Health Science Center, Department of Physiology

2003 – 2005 **Master's degree (MSc)**

University of Oradea, Faculty of Sciences

1999 – 2003 **Teaching diploma in Physics – Chemistry, specialization in Physics**

University of Oradea, Faculty of Sciences, Romania

PERSONAL SKILLS

Mother tongue Hungarian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Romanian C1 C1 C1 C1 C1

Levels: A1/2: Basic User - B1/2: Independent User - C1/2: Proficient User
 Közös Európai Nyelvi Referenciakeret Common European Framework of Reference for Languages

Communication skills Excellent communication skills, both orally and in writing.
 Establishing and maintaining working relationships with domestic and international research groups.

Organisational/managerial skills sense of responsibility, ability to form opinions, organisational skills, consensus-oriented cooperation, consensus-oriented decision-making, problem-solving skills, team spirit, loyalty, conflict management skills, active listening, planning skills, teamwork, balanced self-confidence, positive self-awareness, coordination skills.

Job-related skills Excellent problem-solving skills and results-oriented approach.
 I have many years of experience gained in a responsible and challenging environment.
 I have experience in handling experimental animals and conducting animal experiments (**Theory and Practice of Animal Experiments EU-B course, 430/B/2022/DEMÁB**)

Computer skills Advanced use of Microsoft Office™ tools, Sigma Plot, GraphPad, ImageJ

TEACHING ACTIVITIES

Subjects taught Medical physiology for general medicine and dentistry students - practical classes since 2011 in Hungarian and English
 Cell physiology lectures for molecular biology students since 2019 in Hungarian and English
 Human physiology practical classes and seminars for pharmacy students since 2011 in Hungarian and English

Supervision activities Supervision of 3 PhD students, of whom 1 has already obtained a degree and 1 has completed the doctoral programme requirements
 Supervision of 4 TDK students and co-supervision of 1 TDK student,
 4 presentations at local TDK conferences (1 third-place and 1 second-place award)

Invitations as guest lecturer 2014 - Visiting researcher (Visiting scientist) at the Institute of Biomedicine, Universitätsspital Basel

PUBLIC ACTIVITIES

Awards and distinctions 2023 Hungarian Academy of Sciences Youth International Conference Scientific Competition
 2019 Short study trip to Italy (University of Siena) – Istituto Italiano di Cultura di Budapest
 2018 Hungarian Physiological Society Youth Award
 2014 European Young Physiologist Symposium award (Budapest, Hungary)
 2013 FEPS-IUPS travel award (Birmingham, UK)

SCIENTIFIC ACTIVITY

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

The role of the endocannabinoid system in skeletal muscle function.
The role of mitochondria in muscle diseases; the effects of antioxidants, cholesterol-lowering agents and GLP1 receptor agonists on skeletal muscle function.

Memberships

Member of the Hungarian Physiological Society since 2007.
Member of the American Biophysical Society since 2011.

Hungarian Academy of Sciences

Member of the Public Body of the Hungarian Academy of Sciences since 2021.

Reviewing activities

PLOS ONE, iScience, MDPI journals: IJMS, Cells;
NKFIH OTKA grant applications

Research grants and scholarships awarded

2026	University of Debrecen Faculty of Medicine Scientific funding (4.75 M HUF)
2025	University of Debrecen Faculty of Medicine Scientific funding (1.5 M HUF)
2022-2026	“NKFIH FK_22” grant – principal investigator (title: Investigation of the role of the skeletal muscle endocannabinoid system under healthy and pathological conditions; identifier: FK 142481)
2022	„NKFIH Mecenatúra” grant – principal investigator (title: Investigation of the role of the skeletal muscle endocannabinoid system under healthy and pathological conditions)
2023	University of Debrecen Faculty of Medicine Scientific funding (3.25 M HUF)
2022-2024	“TÉT grant” – principal investigator (title: Investigation of the role of cannabinoids in improving calcium fluxes in skeletal muscles of mdx mice, identifier: 2019-2.1.11-TÉT-2019-00102)
2022	University of Debrecen Scientific funding (2.25 M HUF)
2021-2022	“TÉT grant” – co-investigator (title: The role of the skeletal muscle endocannabinoid system under healthy and pathological conditions, identifier: 2019-2.1.11-TÉT-2019-00063)
2020-2024 Vienna	Erasmus+ teaching mobility, University of Oradea, Romania and University of Vienna
2021	University of Debrecen – Bridging Fund research support (3 M HUF)
2020-2021	“University of Debrecen – Support for the initiation of PhD topics for young lecturers/researchers (1.5 M HUF)
2018–2021	“NKFIH PD_18 grant” – principal investigator (title: Carotenoids, biological mediators responsible for enhanced skeletal muscle function; identifier: PD 128370, excellent evaluation)
2014–2018	“NKFIH PD_14 grant” – principal investigator (interruption due to maternity leave from 2014.12.01 - 2016.08.31; title: The role of store-operated calcium release in healthy and pathological skeletal muscle fibres, identifier: PD 108476, good evaluation)
2018	“Bolyai+ Higher Education Young Lecturer and Researcher Scholarship” (Ministry for Innovation and Technology, New National Excellence Programme; title: Investigation of the role of mitochondria and store-operated calcium entry in healthy and pathological skeletal muscle fibres: ÚNKP-18-4-DE-157)
2016-2019	“János Bolyai Research Scholarship” (Hungarian Academy of Sciences) (title: Investigation of the role of mitochondria and store-operated calcium entry in healthy and pathological skeletal muscle fibres; identifier: BO/00929/16, good evaluation)
2014	“SCIEX-NMS” research scholarship (8 months) (title: JP-45 variants as functional

modifiers of the MH phenotype)

2005-2006 "Young Researcher Scholarship" - European Research Training Network on skeletal muscle – The Sixth Framework Programme (FP6) (University of Debrecen, Medical and Health Science Center, Department of Physiology)

Active research collaborations

Dr. Anikó Keller-Pintér, University of Szeged, Faculty of Medicine, Department of Biochemistry
Dr. Xaver König, University of Vienna, Austria
Dr. Fabio Iannotti, Consiglio Nazionale delle Ricerche (CNR), Istituto di Chimica Biomolecolare (ICB), Pozzuoli, Italy
Dr. Jingsong Zhou, University of Arlington at Texas, USA
Dr. Bradley Launikonis, University of Brisbane, Australia

Scientific publications

<https://scholar.google.com/citations?user=qKgRhN0AAAAJ&hl=en>

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