

Curriculum Vitae (2024)

Personal data

Name: Szilvia BENKŐ

Place of birth: Kecskemet, Hungary

Date of birth: 05 August, 1973

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Degrees and education

2017 habilitation

2004 - Ph.D. in Cellular and Molecular Biology

Department of Biochemistry and Molecular Biology, MHSC, UD

1999 - M.Sc. in Molecular Biology, Biochemistry

Kossuth Lajos University of Arts and Sciences of Debrecen

Diploma work place: Department of Biochemistry and Molecular Biology,
MHSC, UD

1999 - B.Sc. in Specialized English Translator

Kossuth Lajos University of Art and Sciences of Debrecen

Language proficiencies

English – advanced written, oral

Italian – basic written, oral

French – basic written

Scientific work and position

2019 - Associate Professor, Department of Physiology, UD

2013 - 2019 Assistant Professor, Department of Physiology, UD

2012 Assistant Lecturer, Department of Physiology, UD

2010 -2011 Junior Lecturer, Department of Immunology, UD; with a Zoltan Magyary
post-doctoral fellowship

2008 - 2010 Post-doctoral Fellow, Laboratory of Medicine and Pathobiology, Medical
Institute, University of Toronto, Canada

2005 Junior Lecturer, Institute of Immunology, UD

2004 – 2005 Researcher, Department of Immunology, UD

1999 – 2004 PhD student, Department of Biochemistry and Molecular Biology, UD

1996 – 1999 Diploma thesis worker, Department of Biochemistry and Molecular
Biology, MHSC, UD

Fellowships

2017-2019 Lajos Szodoray Postdoctoral Fellowship (University of Debrecen)

2015-2017 János Bolyai Postdoctoral Fellowship (Hungarian Academy of Sciences)
2014-2017 Lajos Szodoray Postdoctoral Fellowship (University of Debrecen)
2011-2014 Lajos Szodoray Postdoctoral Fellowship (University of Debrecen)
2011-2014 János Bolyai Postdoctoral Fellowship (Hungarian Academy of Sciences)
2010-2011 Zoltán Magyar Postdoctoral Fellowship (Ministry of Education and Culture)

Memberships

Hungarian Physiology Society (2014-)
Hungarian Immunology Society (2004-)
Society of Hungarian Biochemistry and Molecular Biology (1998-)

Other positions, activities

2024 - Member of the Operative Committee, Neuroinflammation Network, Gedeon Richter
Pharmaceutical Company
2022- Szent-Györgyi Mentor, National Academy in Scientist Education
2016- Core member of the Doctoral School of Molecular, Cellular and Immune Biology,
University of Debrecen
2016 - Elected Member of the Council of Students' Research Society for Medical and Health
Sciences, University of Debrecen
2014 – 2021 Head of Quality Management of the Department of Physiology

Teaching activities

- *PhD courses*

2013- Journal Club (about Nod-like receptors) in English (coordinator)
2012- Course: “Nod-like receptors in diseases” (coordinator) in English

- *Graduate courses*

2016- Coordinator of Physiology subject for physiotherapist / OLKDA / public health care
BSc students (Hungarian / English)
2014- Problem Based Learning for general medicine and pharmacologist students
2014-2020 Physiology of Nutrition for biologist students in Hungarian (lectures, exams)
2014-2022 Human Physiology for pharmacology students in Hungarian and English (seminars)
2014-2022 Cellular Physiology for biologist students in Hungarian (lectures, exams)
2014- Physiology for physiotherapist / OLKDA / public health care BSc students (lectures)
2013- Human Physiology for biology MSc/BSc students (lectures, exams)
2013 - Physiology for general medicine students in Hungarian and English (lectures, practices)
2012- Human Physiology for dentistry students in Hungarian and English (lectures)
2006-2011 “Basic Immunology” for molecular biologist and biotechnologist students in
Hungarian (lectures, oral examiner)
2006-2011 „Introduction to the Immunology” for laboratory assistant students in Hungarian
(coordinator and lecturer)
2004 -2011 Immunology for medical and pharmacology students in Hungarian and English
(seminars, practices)
2003-2004 Structure and Function of Macromolecules II, Structure - Function Relationship of
Nuclear Receptors, for biologists
2002- 2004 Molecular biology for molecular biologist students in Hungarian (practice)
1999-2004 Biochemistry for Medical and Dentistry students in Hungarian and English (practice)

1997-1998 Animal anatomy for biologist students in Hungarian (practice)

- *Premedical courses*

2014- Biology for pre-med students in English (seminar, entrance examiner)

Supervisor for PhD students

2026 (exp. def.) Supervisor of Hala Ahmad

2026 (exp. def.) Supervisor of Eduárd Bíró

2025 (exp. def.) Supervisor of Ahmad Alatshan

2025 (exp. def.) Supervisor of Gergő Elek Kovács

2019-2021 Shared supervisor of Karolina Cseri

2011- 2015 Supervisor of Marietta Budai (PhD defense: June, 2017)

2010- 2014 Supervisor of Aliz Varga (PhD defense: November, 2014)

Committee member in PhD defenses: regularly

Committee member in National and Local Conference of Students' Research Society:

regularly

Awards:

2008 Financial support for publication awarded by the Foundation of the Hungarian Immunology Development (MIHA in Hungarian)

2004 2nd prize on the National Competition of Publications (2004) (publication: Benko S et al., Molecular determinants of the balance between co-repressor and co-activator recruitment to the retinoic acid receptor, J Biol Chem. 2003.)

2001 1st prize (and financial award from Sigma-Hungary) for poster presentation on the 6th Congress of the Society of Hungarian Biochemistry and Molecular Biology (2001)

2000 2nd prize for poster presentation on EMBO Lecture Course "Molecular and Cellular Biology from Plant to Human Cells"

1999 1st prize in the Molecular Biology Section of the National Scientific Conference of Undergraduate Students

1999 Educational Fellowship from Gyula Leidenfrost Foundation

1998 Summer-work fellowship from the Kossuth Lajos University

1997 Special award in Cellular Physiology from the Department of Physiology, Faculty of Medicine, MHSC, UD, assay entitled "In vivo preparation of musculus tibialis anterior – nervus sciaticus"

Research trips, courses

2016 DAAD-TEMPUS, research exchange with Prof. T. Kufer, University of Hohenheim, Stuttgart, Germany

2015 Campus Hungary, Long Term Fellowship to Toronto, Canada

2015 Campus Hungary, Short Term Fellowship to Stuttgart, Germany

2008-2010 Post-doctoral Fellow, Laboratory of Medicine and Pathobiology, Medical Department, University of Toronto, Canada

2007 DC-THERA Short Term Fellowship, visit to the laboratory of Dr. Maria Rescigno, European Institute of Oncology, Dept. of Experimental Oncology, Milan, Italy

- 2006 Competitional Fellowship for ENII Conference 2006 “Immunity and Autoimmunity” (20-25 May 2006, Sardinia, Italy)
- 2006 Competitional Fellowship for “ENII-MUGEN Immunology Summer School” (13-20 May 2006, Sardinia, Italy)
- 2003 3-week research trip to the research group of John W.R. Schwabe (MRC, Laboratory of Molecular Biology, Cambridge, England)
- 2003 Competitional Fellowship for “ Immunocytochemistry, In Situ Hybridization and Live Cell Imaging” laboratory training course (Cold Spring Harbor Laboratory, NY, USA, 18-31 October, 2003), financially supported by the Boehringer Ingelheim Fonds as a result of a successful application for Travel Allowance.
- 2003 Participation in the "Functional Organization of the Nucleus" Mini-symposium organized by the EMBL (Heidelberg, Germany, 14-15 May, 2003)
- 2003 Participation in the “Fluorescent Microscopy” Mini-symposium organized by the EMBO (Heidelberg, Germany, 12-13 May, 2003)
- 2002 3-week research trip to the research group of Dr. John W.R. Schwabe (MRC, Laboratory of Molecular Biology, Cambridge, England)
- 2001 5-week research trip to the research group of Dr. John W.R. Schwabe (MRC, Laboratory of Molecular Biology, Cambridge, England),
- 2001 Competitional Fellowship for “Protein-protein interactions” (a laboratory training) course organized and sponsored by the EMBO (Munchen, Germany)
- 2001 Competitional Fellowship for “Determination of High-Resolution Structures for the Post-Genomic Age” (a laboratory training course of NMR and X-ray crystallography, Poznan), Organized by the U.S. National Academy of Sciences, Financially supported by the Howard Hughes Medical Institute
- 2000 Competitional fellowship to FEBS Advanced Lecture Course: New Dimensions in the Regulation of Gene Expression, Spetses, Greece (5-19 July)

Research grants

- 2024-2027 Új jelátviteli útvonalak a Nod-like receptorok által szabályozott folyamatokban különböző makrofág alpopulációkban (OTKA)
- 2019-2025 A mintázatfelismerő Nod-like receptorok, mint új, potenciális szabályozók a vázizom regeneráció molekuláris és celluláris folyamataiban (OTKA)
- 2018-2019 Bridging Fund – from the Faculty of Medicine, University of Debrecen
- 2016 DAAD-TEMPUS German-Hungarian research exchange with Prof. T. Kufer, University of Hohenheim, Stuttgart, Germany
„Role of NLRC5 in inflammasome activation and IL-1beta secretion”
- 2014-2017 “Az NLRP3 inflammoszóma működésének molekuláris tényezői inflammatorikus és anti-inflammatorikus makrofágokban”, alapkutatásra elnyert pályázat az Országos Tudományos Kutatási Alap (OTKA) (www.otka.hu) (témavezető)
- 2015-2016 Intramural Research Support from the University of Debrecen (Debreceni Egyetem, ÁOK)
- 2012-2014 VÉD-ELEM, TÁMOP-4.2.2.A-11/1/KONV-2012-0023 project participant as Young Research Group Leader
- 2012-2013 Bridging Fund, Faculty of Medicine Research University of Debrecen
- 2011- 2012 Financial Support from Forever Living Product (FLP), “Effect of Aloe vera on the

inflammatory responses”

2010-2011 Pfizer Young Investigator Research Grant in Basic Research: “Expression and function of NLRC5, a novel Nod-like receptor in human dendritic cells”

2007-2010 „The function of Nod-like receptors in human corneal epithelial cells”, *OTKA*, principle investigator of the grant awarded by the Hungarian Scientific Research Fund (www.otka.hu)