# CURRICULUM VITAE

## PERSONAL INFORMATION


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| Name: | **Jana Kimijanová (Lobotková)** |
| E-mail: | jana.kimijanova@savba.sk |


## PROFESSIONAL SUMMARY

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| Position: | senior researcher (scientific qualification IIa) |
| Academic degree: | PhD. degree in the Normal and Pathological Physiology |
| ORCID: | 0000-0002-8430-5666 |
| Scientific output: | 15 publications in CC and impact-factor journals<br>Hirsch index (WoS, Scopus): 7<br>Number of citations: WoS - 111, Scopus - 125 |
| Scientific interest: | human balance control, sensory integration, sensory stimulation techniques, aging, Parkinson's disease, stroke rehabilitation, effect of exercise on postural control |
| Main activities: | experienced researcher and project leader specializing in balance assessment, sensorimotor integration, and neurophysiology; active in national and international research projects; thesis supervision and reviewing; scientific publishing and peer-reviewing (guest associate editor in scientific journals); active engagement in science popularization |
| Competences & skills: | human balance measurements and analyses – posturography, kinematic analysis by inertial sensors and motion capture systems, visual and proprioceptive stimulation methods, visual biofeedback, virtual reality |
| Technical skills: | advanced skills: Microsoft Word, Excel, PowerPoint, Internet<br>basic skills: MATLAB, Adobe Illustrator CS, JASP (statistical software) |
| Soft skills: | critical thinking and problem solving, communication and collaboration, leadership and mentorship, creativity, ethical and responsible conduct, adaptability |
| Language: | English – fluent |
| Organizational skills: | member of the organizing team of the 6$^{th}$, 7$^{th}$, 8$^{th}$ and 9$^{th}$ International Posture Symposium (2011, 2015, 2018, 2023) in Smolenice, Slovakia, www.posture.sk<br>member of the program committee of the 6$^{th}$ Movement Analysis Conference (2024) in Kladno, Czech Republic, https://movementanalysis.eu/ |
| Science popularization: | active participation in annually held popularization events - European Researchers' Night, We Are SAS, various yearly activities within the Science and Technology Week, and the Open Day at CEM SAS; several of these activities are also publicized in the media (TV, radio, internet) |

## WORK EXPERIENCE

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| 01/2018 - present | Department of Behavioural Neuroscience, Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovakia, https://unpf.sav.sk/en/ |
| 2/2010 - 12/2017 | Laboratory of Motor Control, Institute of Normal and Pathological Physiology, Slovak Academy of Sciences, Bratislava, Slovakia |
| 4/2013 – 7/2013 | Visiting Research Scholar in the Department of Neurology, Oregon Health and Science University, Portland, Oregon, USA, Balance Disorders Laboratory |

## EDUCATION

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| 2015 | **Faculty of Medicine, Comenius University, Bratislava**<br>Doctor of Philosophy (PhD.) - in the field of Normal and Pathological Physiology<br>PhD. thesis: *Sensory regulation of gait* |
| 2010 | **Faculty of Natural Sciences, Constantine the Philosopher University, Nitra**<br>Doctor of Natural Sciences (RNDr.) - in the field of Biology<br>Rigorous thesis: *Prevalence of viral hepatitis in Nitra Region* |
| 2009 | **Faculty of Natural Sciences, Constantine the Philosopher University, Nitra**<br>Master of Science (MSc.) – in the field of Biology |

## PARTICIPATION IN NATIONAL AND INTERNATIONAL SCIENTIFIC RESEARCH PROJECTS

**National research projects - position: the principal investigator**

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| 1/2025 – 12/2028 | Sensory control of postural balance and its changes due to motor, cognitive, and anxiety disorders (VEGA 2/0098/25) |

**National research projects - position: representative of the principal investigator**

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| 8/2021 – 6/2025 | Novel approach to post-stroke rehabilitation. A basic and translational study, aiming to restore posture control and body symmetry in post-stroke patients by sensory stimulation (APVV-20-0420) |
| 2022 – 2024 | Postural threat in virtual reality in adults with height intolerance (VEGA 2/0080/22) |

**National research projects - position: co-investigator**

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| 7/2024 – 6/2028 | The influence of semantic representation and executive control on the structure and dynamics of idea generation (APVV-23-0145) |
| 2019 – 2021 | The effect of virtual reality on the sensory regulation of balance control, physiological and psychological functions in humans (VEGA 2/0104/19) |
| 2017 – 2019 | Design and implementation of visual biofeedback for the rehabilitation of mobility deficiencies in patients with low back pain (APVV-16-0233) |
| 2017 – 2019 | Specific methods and innovative procedures for assessing performance in athletes and physical fitness in the general population (VEGA 1/0824/17) |
| 2016 – 2018 | Age-related changes in sensory control of balance during sit-to-stand and gait (VEGA 2/0094/16) |
| 2014 – 2016 | Functional tests in diagnostics of postural stability and strength of core muscles (VEGA 1/0373/14) |
| 2013 – 2015 | Kinematic analysis of posture and gait in healthy subjects and patients with balance impairment (VEGA 2/0138/13) |
| 2011 – 2013 | Performance tests of postural stability in functional diagnosis of sportmen and individuals with motor disorders (VEGA 1/0070/11) |
| 2010 – 2012 | Improvement of balance in stance and gait by feedback from body sway (VEGA 2/0186/10) |

**International research projects - position: co- investigator**

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| 2016 – 2017 | Postural and core stability in association with respiratory functions in healthy and lung transplant individuals (APVV SK-AT-2015-0031) |
| 2013 – 2015 | Sensory integration for stance and gait in healthy people and neurological patients (SAS-OHSU) |
| 2009 – 2013 | Centre of Excellence for Research and Development of Constructive Composite Materials II Program: EU Structural Funds Research & Development |
| 2010 – 2011 | Sensory biofeedback for human balance improvement (SAIA 2010-03-15-0004) |

## TEACHING ACTIVITY

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| Supervision - Bachelor theses: | 2023-2024 (successfully defended), 2023-2025 (current) |
| Supervision - Diploma theses: | 2024-2026 (current) |

## MEMBERSHIP IN SCIENTIFIC ORGANIZATIONS

**National organizations – role: regular member**

Slovak Physiological Society
Slovak Medical Society - SLS
Slovak Neuropsychiatric Society
Slovak Society for Neuroscience at the Slovak Academy of Sciences
Association of Slovak Physicians in Bratislava

**International organization – role: regular member**

International Society of Posture & Gait Research (ISPGR)

## MEMBERSHIP IN EDITORIAL BOARDS OF SCIENTIFIC JOURNALS

**International journals – role: guest associate editor**

Frontiers in Human Neuroscience
Frontiers in Neurology
PCI Health and Movement Science

## PUBLICATIONS

HALICKÁ, Z. - **LOBOTKOVÁ, J.** - BUČKOVÁ, K. - BZDÚŠKOVÁ, D. - HLAVAČKA, F. Age-related effect of visual biofeedback on human balance control. In Activitas Nervosa Superior Rediviva, 2011, vol. 53, no. 2, p. 67-71. ISSN 1337-933X.

HALICKÁ, Z. - **LOBOTKOVÁ, J.** - BZDÚŠKOVÁ, D. - HLAVAČKA, F. Age-related changes in postural responses to backward platform translation. In Physiological Research, 2012, vol. 61, no.3, p. 331-335. ISSN 0862-8408. DOI: 10.33549/physiolres.932234

**LOBOTKOVÁ, J.** - HALICKÁ, Z. - BUČKOVÁ, K. - KILLINGER, Z. - PAYER, J. - HLAVAČKA, F. Balance control, vitamin D and bone resorption marker in elderly women with osteopenia and osteoporosis. In Activitas Nervosa Superior Rediviva, 2013, vol. 55, no. 3, p. 103-111. ISSN 1337-933X.

HALICKÁ, Z. - **LOBOTKOVÁ, J.** - BUČKOVÁ, K. - HLAVAČKA, F. Effectiveness of different visual biofeedback signals for human balance improvement. In Gait & Posture, 2014, vol.39, p. 410-414. ISSN 0966-6362. DOI: 10.1016/j.gaitpost.2013.08.005

BUČKOVÁ, K. - **LOBOTKOVÁ, J.** - HIRJAKOVÁ, Z. - BZDÚŠKOVÁ, D. - HLAVAČKA, F. Postural control assessed by limit of stability in obese adults. In Activitas Nervosa Superior Rediviva, 2014, vol. 56, no. 3-4, p. 87-90. ISSN 1337-933X.

HIRJAKOVÁ, Z. - **LOBOTKOVÁ, J.** - BUČKOVÁ, K. - BZDÚŠKOVÁ, D. - HLAVAČKA, F. Age-related differences in efficiency of visual and vibrotactile biofeedback for balance improvement. In Activitas Nervosa Superior Rediviva, 2015, vol. 57, no. 3, p. 63-71. ISSN 1337-933X.

HIRJAKOVÁ, Z. - ŠINGLIAROVÁ, H. - BZDÚŠKOVÁ, D. - **KIMIJANOVÁ, J.** - BUČKOVÁ, K. - VALKOVIČ, P. - HLAVAČKA, F. Postural stability and responses to vibrations in patients after anterior cruciate ligament surgical reconstruction. In Physiological Research, 2016, vol. 65, suppl. 3, p. S409-S416. ISSN 0862-8408. DOI: 10.33549/physiolres.933437

HIRJAKOVÁ, Z. - NEUMANNOVÁ, K. - **KIMIJANOVÁ, J.** - ŠUTTOVÁ, K. - JANURA, M. - HLAVAČKA, F. Breathing changes accompanying balance improvement during biofeedback. In Neuroscience Letters, 2017, vol. 651, p. 30-35. ISSN 0304-3940. DOI: 10.1016/j.neulet.2017.04.051

BZDÚŠKOVÁ, D. - VALKOVIČ, P.- HIRJAKOVÁ, Z. - **KIMIJANOVÁ, J.** - HLAVAČKA, F. Parkinson's disease versus ageing: different postural responses to soleus muscle vibration. In Gait & Posture, 2018, vol. 65, p. 169-175. ISSN 0966-6362. DOI: 10.1016/j.gaitpost.2018.07.162

HIRJAKOVÁ, Z. - ŠUTTOVÁ, K. - **KIMIJANOVÁ, J.** - BZDÚŠKOVÁ, D. - HLAVAČKA, F. Postural changes during quiet stance and gait initiation in slightly obese adults. In Physiological Research, 2018, vol. 67, no. 6, p. 985-992. ISSN 0862-8408. DOI: 10.33549/physiolres.933870

**KIMIJANOVÁ, J.** - HIRJAKOVÁ, Z. - BZDÚŠKOVÁ, D. - HLAVAČKA, F. Influence of vision on gait initiation and first step kinematics in young and older adults. In Physiological Research, 2021, vol. 70, suppl. 3, p. S409-S417. ISSN 0862-8408. DOI: 10.33549/physiolres.934813

**KIMIJANOVÁ, J.** - BZDÚŠKOVÁ, D. - HIRJAKOVÁ, Z. - HLAVAČKA, F. Age-related changes of the anticipatory postural adjustments during gait initiation preceded by vibration of lower leg muscles. In Frontiers in Human Neuroscience, 2021, vol. 15, no., art. no. 771446, 8 p. ISSN 1662-5161. DOI: 10.3389/fnhum.2021.771446

BZDÚŠKOVÁ, D. - MARKO, M. - HIRJAKOVÁ, Z. - **KIMIJANOVÁ, J.** - HLAVAČKA, F. - RIEČANSKÝ, I. The effects of virtual height exposure on postural control and psychophysiological stress are moderated by individual height intolerance. In Frontiers in Human Neuroscience, 2022, vol. 15, no., art. no. 773091, 12 p. ISSN 1662-5161. DOI: 10.3389/fnhum.2021.773091

BZDÚŠKOVÁ, D. - MARKO, M. - HIRJAKOVÁ, Z. - RIEČANSKÝ, I. - **KIMIJANOVÁ, J.** Fear of heights shapes postural responses to vibration-induced balance perturbation at virtual height. In Frontiers in Human Neuroscience, 2023, vol. 17, art. no. 1229484, p. [1-10]. ISSN 1662-5161. DOI: 10.3389/fnhum.2023.1229484

**KIMIJANOVÁ, J.** - SVOBODA, Z. - HAN, J. Editorial: Sensory control of posture and gait: integration and mechanisms to maintain balance during different sensory conditions. In Frontiers in Human Neuroscience, 2024, vol. 18, p. 1-3. (2023: 2.4 - IF, Q2 - JCR, 0.787 - SJR, Q2 - SJR). ISSN 1662-5161. DOI: 10.3389/fnhum.2024.1378599