Lada **Kohoutová**

Postdoctoral fellow

Laboratory of Cognitive Neuroscience, Neuro-X Institute, Faculty of Life Sciences, Swiss Federal Institute of Technology (EPFL), Geneva, Switzerland

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Education

Department of Biomedical Engineering, Sungkyunkwan University — *Suwon, South Korea*

Doctor of Philosophy — *2019-2023*

- Advisor: Dr. Choong-Wan Woo
- Dissertation: Representations of neuroimaging-based predictive models of pain and beyond: validation and insight

Faculty of Electrical Engineering, Czech Technical University — *Prague, Czech Republic*

Master of Science — *2015-2017*

- Study field: Communications, Multimedia, Electronics - Multimedia technology
- Summa cum laude

Faculty of Electrical Engineering, Czech Technical University — *Prague, Czech Republic*

Bachelor of Science — *2012-2015*

- Study field: Communications, Multimedia, Electronics - Multimedia technology
- Graduated in a premium advanced form of the study program as one out of 3 students enrolled and out of the total of 132 students enrolled in the study program

Employment & Research experience

Laboratory of Cognitive Neuroscience, Neuro-X Institute, Faculty of Life Sciences, Swiss Federal Institute of Technology (EPFL) — *Geneva, Switzerland*

Postdoctoral researcher — *Jul. 2024 - present*

- Advisor: Prof. Olaf Blanke
- Research activities: fMRI study of hallucinations and cognitive impairment in Parkinson's disease

Department of Biomedical Engineering, Sungkyunkwan University, Center for Neuroscience Imaging Research (CNIR), Institute for Basic Science (IBS) — *Suwon, South Korea*

Postdoctoral researcher — *Mar. 2023 - Mar. 2024*

- Advisor: Dr. Choong-Wan Woo
- Research focus: fMRI pain study in healthy individuals, individual variability in brain representations, effects of pain on visual processing, manifold geometry analysis of fMRI data

Department of Biomedical Engineering, Sungkyunkwan University, Center for Neuroscience Imaging Research (CNIR), Institute for Basic Science (IBS) — *Suwon, South Korea*

Graduate researcher — *Mar. 2019 - Feb. 2023*

- Advisor: Dr. Choong-Wan Woo
- Research focus: fMRI pain study in healthy individuals, individual variability in brain representations, effects of pain on visual processing, manifold geometry analysis of fMRI data

Department of Biomedical Engineering, Sungkyunkwan University, Center for Neuroscience Imaging Research (CNIR), Institute for Basic Science (IBS) — *Suwon, South Korea*

Post-master researcher — *Aug. 2017 - Feb. 2019*

- Advisor: Dr. Choong-Wan Woo
- Research focus: methodology and interpretation of computational modelling applied to fMRI data

Teaching experience

Teaching assistant

Biostats and Big Data class — *Spring 2021*

Teaching assistant

Probability and Statistics class — *Spring 2019*

Awards

Best Paper Award (First prize)

Intelligent Precision Healthcare Convergence, Sungkyunkwan University *2023*

Young Investigator Award

Center for Neuroscience Imaging Research (CNIR), Institute for Basic Science (IBS) *2022*

Outstanding Trainee Award

Korean Society for Human Brain Mapping *2020*

Best Paper Award (Third prize)

Center for Neuroscience Imaging Research (CNIR), Institute for Basic Science (IBS) *2020*

Publications

Kohoutová, L.*, Kim, R., Chou, C.-N., Park, Y., Chung, S., Shim, W. M., Woo, C.-W. (In prep.) Capturing pain-induced changes in visual processing through manifold geometry.

Kohoutová, L., Atlas, L. Y., Büchel, C., Buhle, J. T., Geuter, S., Jepma, M., Koban, L., Krishnan, A., Lee, D. H., Lee, S., Roy, M., Schafer, S. M., Schmidt, L., Wager, T. D. & Woo, C.-W. (2022). Individual variability in brain representations of pain. Nature Neuroscience, 1-11.

Kohoutová, L., Heo, J., Cha, S., Lee, S., Moon, T., Wager, T. D., & Woo, C.-W. (2020). Toward a unified framework for interpreting machine-learning models in neuroimaging. Nature Protocols, 15(4), 1399-1435.

*co-first author

Conference presentations & Invited talks

Kohoutová, L., Kim, R. Park, Y., Shim, W. M. & Woo, C.-W. "Effects of pain on the representations of visual stimuli in the ventral visual stream." **Poster presentation.** The 26th Annual Meeting of the Korean Society for Brain and Neural Sciences, September 2023, Busan, South Korea

Kohoutová, L. "Individual Variability in Brain Representations of Pain." **Oral presentation.** 2023 Intelligent Precision Healthcare Convergence Symposium, January 2023, Suwon, South Korea

Kohoutová, L., Atlas, L. Y., Büchel, C., Buhle, J. T., Geuter, S., Jepma, M., Koban, L., Krishnan, A., Lee, D. H., Lee, S., Roy, M., Schafer, S. M., Schmidt, L., Wager, T. D. & Woo, C.-W. "Individual Variability in Brain Representations of Pain." **Poster presentation.** Neuroscience 2022, November 2022, San Diego, CA, USA

Kohoutová, L. "Individualised Predictive Modelling of Pain Processing in the Brain." **Invited talk.** Krembil Neuroimaging Rounds, July 2022, virtual

Kohoutová, L. "Inter-Individual Variability in Brain Representations of Pain." **Oral presentation.** 2022 Intelligent Precision Healthcare Convergence Symposium, February 2022, virtual

Kohoutová, L., Atlas, L. Y., Büchel, C., Buhle, J. T., Geuter, S., Jepma, M., Koban, L., Krishnan, A., Roy, M., Schafer, S. M., Schmidt, L., Wager, T. D. & Woo, C.-W. "Individual Variability of Regional Multivariate Patterns in Pain Prediction." **Poster presentation.** Organization for Human Brain Mapping 2020, July 2020, virtual

Kohoutová, L., Heo, J., Cha, S., Moon, T., Wager, T. D., Woo, C.-W. "Interpreting Machine Learning Models in Neuroimaging: A Unified Framework." **Poster presentation.** Organization for Human Brain Mapping 2019, June 2019, Rome, Italy

Ad hoc manuscript review

Social Cognitive and Affective Neuroscience

Communications Biology

Journal of Neuroscience

Skills

- **Technical skills:** Matlab, R, Python, neuroimaging tools - SPM, FSL
- **Languages:** Czech (native), English (fluent), Korean (intermediate), French (lower intermediate)