

GÁBOR PERLAKI



University of Pécs
National Laboratory of Translational Neuroscience

Address: Rét utca 2., H-7623 Pécs, Hungary

RESEARCH AREA

Our working group focuses primarily on studying the higher mental functions of the human brain and conducting non-invasive, in vivo basic research on human-specific brain diseases using MR imaging. In addition to examinations aimed at understanding normal brain function and mapping the central nervous system background of different diseases, we also conduct MR research focused on methodological issues and methodological developments. In addition to task-based and resting-state functional MR studies, we work with perfusion, spectroscopy, and morphometric and diffusion MR methods suitable for examining micro- and macrostructural changes in the brain.

TECHNIQUES AVAILABLE IN THE LAB

- Basics of MR imaging
- MR sequence setup
- image registration
- processing of MR images
- calculation of quantitative MR parameters
- statistical analyses

SELECTED PUBLICATIONS

Perlaki, G., Dudás, B., Horváth, R., Orsi, G., Darnai, G., Arató, Á., Nagy, S. A., Dóczy, T., Komoly, S., Kovács, N., & Janszky, J. (2025) Diffusion along the perivascular space influenced by handedness and language lateralisation. **Brain Commun** **7**: fcaf252.

Perlaki, G., Darnai, G., Arató, Á., Alhour, H. A., Szente, A., Áfra, E., Nagy, S. A., Horváth, R., Kovács, N., Dóczy, T., Orsi, G., & Janszky, J. (2024) Gray Matter Changes Following Mild COVID-19: An MR Morphometric Study in Healthy Young People. **J Magn Reson Imaging** **59**: 2152 – 2161.

Hernadi, G., **Perlaki, G.**, Kovacs, M., Pinter, D., Orsi, G., Janszky, J., & Kovacs, N. (2023) White matter hyperintensities associated with impulse control disorders in Parkinson's Disease. **Sci Rep** **13**: 10594.

Nagy, S. A., Ivic, I., Tóth, P., Komoly, S., Kiss, T., Péntzes, M., Málnási-Csizmadia, A., Dóczy, T., **Perlaki, G.**, & Orsi, G. (2023) Post-reperfusion acute MR diffusion in stroke is a potential predictor for clinical outcome in rats. **Sci Rep** **13**: 5598.

Hernadi, G., Pinter, D., Nagy, S. A., Orsi, G., Komoly, S., Janszky, J., Kovacs, N., & **Perlaki, G.** (2021) Fast 3 T nigral hyperintensity magnetic resonance imaging in Parkinson's disease. **Sci Rep** **11**: 1179.