# Postdoc/PhD Student Position in AI Boosted Molecular MRI

The Molecular MRI and Translational Machine Intelligence (MOMENTUM) lab at the Department of Biomedical Engineering and the Sagol School of Neuroscience at Tel Aviv University, Israel, invites applications for a fully funded (ERC) postdoc research fellow or PhD student position in the field of AI boosted molecular MRI.

Our lab explores the molecular mechanisms underlying brain disease and develops methods for early diagnosis and therapy optimization, with potential applications in cancer, stroke, and neurodegenerative disorders. We design and implement machine-learning-based strategies for early interventions along the imaging pipeline, enabling automatic MRI acquisition protocol discovery and quantitative molecular parameters reconstruction.

For more details check out our lab website at: https://mri-ai.github.io and relevant publications:
- Weigand-Whittier at al., *Magnetic Resonance in Medicine*. 2023 https://doi.org/10.1002/mrm.29574
- Perlman O et al., *Nature Biomedical Engineering*. 2022. https://doi.org/10.1038/s41551-021-00809-7
- Perlman O et al., *Magnetic Resonance in Medicine*. 2022 https://doi.org/10.1002/mrm.29173
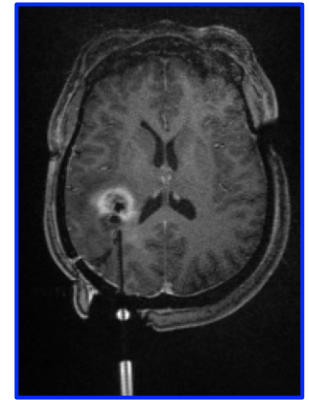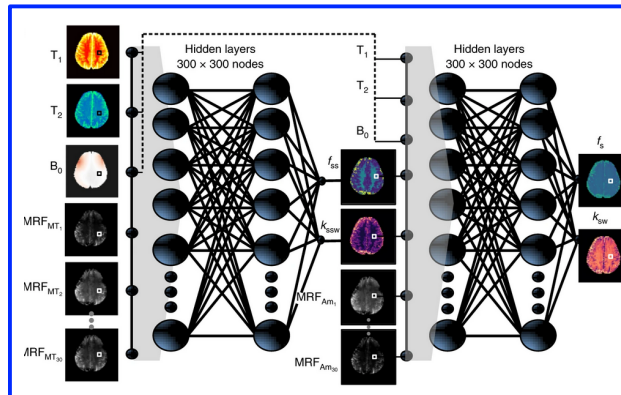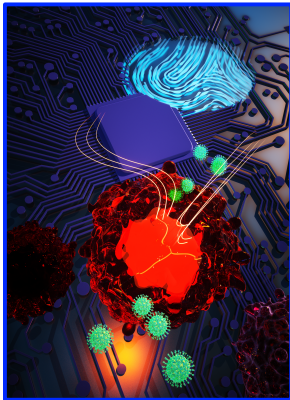
Required Qualifications: A PhD/MSc in Biomedical Engineering, Electrical Engineering, Physics, Computer Science, Neuroscience, Medical Imaging, or related fields; strong programming skills (Python); strong written and oral English communication skills; previous experience with either preclinical/clinical MRI experiments and/or machine learning.

Facilities: Tel Aviv University is Israel's largest research university. Its state-of-the-art MRI facilities include a preclinical Bruker 7T scanner and a clinical 3T Prisma Siemens Scanner. A high-field human 7T scanner is also available at a nearby facility, as well as ample collaboration opportunities at TAU-affiliated hospitals and with research groups in Germany and the US. High-performance computing and GPU clusters are available.

Location: "Tel Aviv, Israel's largest metropolitan area, serves as a hub for innovation, culture and creativity. With the city's beautiful beaches, diverse cultural scene, top-notch cuisine, and vibrant nightlife, there's always something to see and do here" (https://visit.tel-aviv.gov.il/).

Interested applicants are welcome to send an up-to-date curriculum vitae and contact information for three references to Dr. Or Perlman: orperlman@tauex.tau.ac.il.