



Two Postdoctoral Positions in Human Brain Glycomics Research VU LSC-EMBL Partnership Institute, Vilnius University, Lithuania

The laboratory of **Urte Neniskyte** at the Vilnius University Life Sciences Center and European Molecular Biology Laboratory Partnership Institute (Vilnius, Lithuania) is seeking two talented postdoctoral researchers to join an ERC Consolidator Grant project studying the role of neuronal glyocalyx in shaping the architecture of emerging circuits.

Research Focus: The project is aimed at understanding the role of glyocalyx and neuron-surface sialic acid in neuronal synapse formation, function and remodelling through the perspective of human evolution. This collaborative project combines iPSC-derived neurons from human and non-human primates with comprehensive electrophysiological, molecular and glycomic analysis to define how human-specific sialylation contributed to the evolution of the unique human brain.

Position 1: iPSCs Postdoctoral Researcher

- Design and execute experiments to study the circuit assembly of iPSC-derived neurons in vitro.
- Establish iPSC-derived neuronal and glial cultures from human and non-human primate iPSCs.
- Collaborate with molecular biologists to perform iPSC genome editing using CRISPR/Cas tools.
- Collaborate with glycome analysis facilities to define human-specific glycosylation and sialylation.
- Use postsurgical human tissue to validate iPSC findings.

Position 2: Electrophysiology Postdoctoral Researcher

- Develop and implement multi-electrode array (MEA) pipelines to investigate circuit properties.
- Supplement MEA recordings with calcium imaging.
- Combine optogenetic and MEA approaches for circuit stimulation.
- Lead computational analysis of network activity data.
- Collaborate with cell and molecular biologists.

Required Qualifications

- Ph.D. in Neuroscience, Life Sciences, or related fields
- Strong publication record
- Interest in setting up new techniques and the ability to work independently

Research Environment: The successful applicants will work in a stimulating, international environment, with access to cutting-edge technologies in a rich scientific community. Both positions are tenable for **up to 5 years on a full-time basis** with the annual gross salary of €35 700.

How to Apply: Please send the following documents to urte.neniskyte@gmc.vu.lt

- Detailed CV including publication list
- Cover letter describing your research interests and relevant experience
- Names and contact information of three references