Contribution ID: 12

Brain reconstruction from histology: Quantitative multimodal mapping of cell types in the (full) human brain

Tuesday 20 September 2022 10:00 (30 minutes)

Realistic models of human brain function and disease require high detail, human-specific knowledge of brain architecture. The BigBrain data set has established a new standard for uniform, high resolution, rigorous maps of the human brain. We set out to expand this development, by integrating multimodal mapping of fibers and molecularly defined cell types. For this, we use updated histological, imaging, as well as analysis techniques based on high performance computing. We developed a protocol that allows for combining polarized light imaging with multiplex chromogenic immunohistochemistry, to image both fibers and molecularly defined cells and processes, followed by cytoarchitecture, sequentially, in the same full human brain section.

Presenter: Dr KOIJMANS, Roxana (Netherlands Institute for Neuroscience) **Session Classification:** Networks and brain segregation