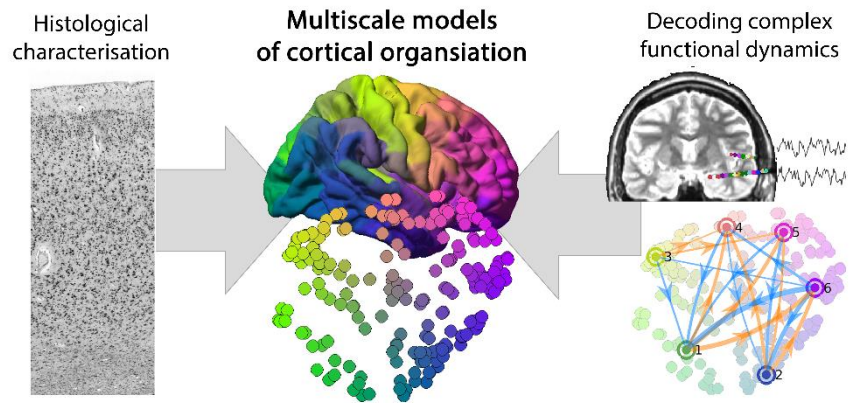


PhD position in *Linking the cellular organisation of the human brain to complex functions*

We are seeking a PhD trainee to join the Multiscale Neuroanatomy lab in the Institute of Neuroscience and Medicine, Forschungszentrum Jülich. The Multiscale Neuroanatomy Lab develops theories on how the cellular organisation of the human brain gives rise to complex functional dynamics. The PhD position is suitable for a creative researcher, who is interested in neuroanatomy and developing innovative ideas on how to model the brain.

The lab is part of INM-1 (Structural and Functional Organisation of the Brain), which integrates cytoarchitecture, connectivity, receptor densities and genetics to create multimodal brain atlases, including the first ever microscopic 3D brain model. Recent research leverages higher image resolutions for creating brain atlases, using high-throughput imaging systems coupled with state-of-the-art deep learning techniques, in cooperation with the Jülich Supercomputing Centre (JSC). The JSC operates the most powerful supercomputers in Europe, providing storage, management and software systems for handling the largest datasets of German and European scientific communities. The PhD position will be embedded within this interdisciplinary network of researchers, providing unique opportunities to undertake world leading research. The Forschungszentrum Jülich is an exciting working environment on an attractive research campus, located between the cities of Cologne, Düsseldorf, and Aachen.



The Position entails:

- Mapping and analysis of the organisation of cells in the human brain using ultra-high-resolution post mortem histology
- Modelling the relationship between brain structure and function at various spatial scales (i.e. from neuronal assemblies to the entire brain)
- Working with a broad range of imaging modalities (structural and functional MRI, intracranial EEG), as well as post mortem data (histology and transcriptomics)
- Close cooperation with an interdisciplinary team of neuroscientists, computer scientists and physicists
- Production of high-quality scientific articles
- National and international travel to present at scientific conferences and strengthen inter-lab cooperations

Requirements:

- Master's degree in neuroscience, biology, physics or a related field of study
- Excellent written and verbal English communication skills
- Strong understanding of human neuroanatomy
- Programming skills in Matlab or Python are desirable

Our offer:

- Become a team member of a highly motivated working group, as well as an international and interdisciplinary working environment at one of Europe's largest research establishments
- Outstanding scientific and technical infrastructure
- Continuous mentoring by your scientific advisor
- Flexible working hours and 30 days of annual leave
- Further development of your personal strengths, e.g. through an extensive range of training courses; a structured program of continuing education and networking opportunities specifically for doctoral researchers via JuDocS, the Jülich Center for Doctoral Researchers and Supervisors: <https://www.fz-juelich.de/iudocs>
- Targeted services for international employees, e.g. through our International Advisory Service

Position details

Location: Jülich

Duration: Initially 3 years fixed term.

Start date: Flexible

Salary and social benefits: Pay is in line with 65% of pay group 13 of the Collective Agreement for the Public Service (TVöD-Bund) and additionally 60% of a monthly salary as special payment („Christmas bonus“).

To apply, please submit:

- A cover letter (1-2 pages) outlining your career goals, how you meet the specific requirements of the position and a description of the scientific questions you would like to pursue.
- Curriculum Vitae
- Contact information for a referee
- Sample of your scientific writing (e.g. publication or thesis)
- Copy of transcripts from undergraduate and masters degrees

Apply here → https://www.fz-juelich.de/portal/EN/Careers/application/node.html?cms_hre_link_id=oh1wsgAdJZQXLhy1&cms_lang=en

We encourage applications from individuals that belong to groups that are underrepresented in science. The job will be advertised until the position has been successfully filled.

Contact person: Dr. Casey Paquola