**Programmer position in Neuroscience, Klinikum der Universität München**
Institute for Stroke and Dementia Research

We are:

The ISD (photo) located in the biomedical science campus, **is a member of the DFG-funded "Synergy" Cluster of Excellence** with various institutions in Munich. We are working on collaborative projects and share all resources, hence **it is an excellent basic and translational research environment**. ISD is also a part of the **Graduate School of Systemic Neurosciences** (GSN) in Munich, which educates top-quality Master and Ph.D. students from all over Europe and the world and will give you the opportunity to integrate into this program and work with highly qualified international coworkers**. Our lab at the ISD has a state-of the art infrastructure including**: **brand new fully equipped lab and offices**, **a state-of-the-art animal facility** that is fully equipped with surgery rooms, a recently purchased in-house **2-photon microscope** (Zeiss 7P), a Leica SP8 confocal microscope, a Lavision Biotec **light-sheet microscope**, a behavioral test unit, a surgery room and a post-operative care unit, a new PALM Microbeam 4.0 laser micro-dissection microscope, and epifluorescence microscopes. **Hence, we offer an interactive and inspiring atmosphere, ideal for our researchers to publish in top-tier journals and develop their career at best.** We have a strong international scientific network and thus frequently host guest lecturers and maintain international collaborations.
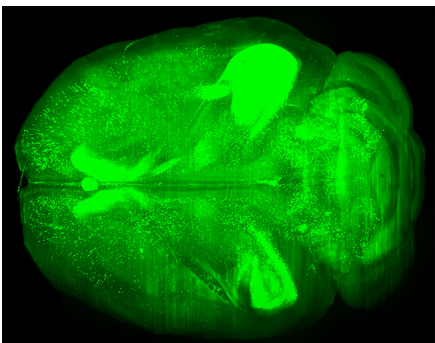
My group explores critical cellular and molecular mechanisms underlying neurodegenerative diseases, in particular brain injury. To this end, we map the mouse brain using various cutting-edge techniques to assess brain function and structure including *in vivo* 2-photon imaging, optogenetics, high resolution 3D imaging of the entire brain -that we recently developed (photo published as covers in **Nature Medicine** (**Erturk** et al. 2012) and **Nature Protocols** (**Erturk** et al. 2012)), and rabies virus tracing of neuronal networks.

You are:

- curious about basic science and carry a great interest to make breakthroughs,
- always looking for solutions to turn great ideas and opportunities into actions,
- always willing to learn, and have the courage to ask questions when you don't know,
- open to express your opinions and receive feedbacks / critics,
- a team player and willing to work in a collaborative environment to share ideas and experiences,
- willing to be part of a diverse team to make a dent in the universe.

The Position:

The research focuses on **developing imagine analysing algorithms** to explore mechanisms leading to chronic neurological problems (e.g. Alzheimer's disease, epilepsy and neuropsychiatric disorders). The specific projects will involve usage of **programing (Matlab, Python, Perl, C++ or equivalent and special imaging software) to map the mouse brain** from the data obtained by 3D imaging of cleared transparent brains. Hence, ideal candidates should have a very good knowledge in programming to develop algorithms for image analysis. Working knowledge of basic statistics is compulsory, advanced statistics (e.g. Bayesian analyses, machine learning) would be preferable. We also offer opportunities to develop your skills further, for example in programming or advance microscopy techniques including 2-photon imaging and light-sheet microscopy.

The position is intended to be for 6 months (such as for Master students, Praktikum or Studentische Hilfskraft) and extension is possible. Applicants should submit their complete application documents as pdf (including CV, motivation letter, publication list and 2 references or the contact info of at least 2 referees) via email to:

To Ms. Jasmin Gezgin on behalf of Dr. Ali Ertürk
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