Masters Project in Stem Cell Biology and Neurodevelopmental Disease

Institution: Keays Lab**,** Biozentrum, Großhaderner Str. 2

Start date: Open

Deadline for application: 31st January 2022

Project duration: 6-12 months

Description:

An opportunity exists for a passionate neuroscientist to join the Keays laboratory, to undertake a masters project in stem cell biology and neurodevelopmental disease. The Keays lab has previously shown that mutations in an uncharacterised microtubule associated kinase (MAST1), cause cortical malformations with an enlarged corpus callosum (Tripathyd et al, Neuron 2018). This project will exploit patient derived induced pluripotent stem cells (iPSCs) and human embryonic stem cells (ESs) to generate mature neurons and cerebral organoids in cell culture. Advanced microscopy and molecular methods will then be employed to gain insight into the underlying mechanisms that result in human disease.

The Keays laboratory is located in Munich within the division of Neuroscience at the Biocentrum Campus at Martinsried. We are supported by state-of-the-art sequencing, proteomic and microscopy facilities. Members of the lab originate from around the globe, English is the working language, and we foster an egalitarian atmosphere. Previous students form the lab have then embarked on PhD programs at Harvard, Oxford, Cambridge, FMI, and Cold Spring Harbour.

The ideal applicant will have a background in neuroscience and/or cell biology. Passion, perseverance and creativity are essential attributes.

Tasks:

- Stem cell culture
- Organoid generation
- Neuronal cell culture
- Immunohistochemistry
- Microscopy

Our offer:

- The opportunity to work in a young, vibrant team on an emerging topic in neuroscience.
- The chance to learn advanced neuronal cell culture and cerebral organoid generation.

Please send your application with a cover letter, CV, and the names of two referees to Prof. Dave Keays (keays@bio.lmu.de) and his secretary Daniela Billenstein (billenstein@biologie.uni-muenchen.de).