



Open position for the LSM call of applications

Institute: Department of Biology

Subject areas/Research fields: Cerebral Organoids, Brain Development, iPSCs.

Keywords: Neuroscience, Disease Modelling, Cell Biology

Name of supervisor: Prof. Dr David Keays

Funding:

LSM-CSC

DAAD-GSSP (LSM)

Project title: Antisense oligonucleotide treatment for MAST1 associated epilepsy

Project description:

Epilepsy is a severe chronic neurological disorder that affects more than 50 million people worldwide. Mutations in MAST1, an uncharacterised serine/threonine kinase, are known to cause epilepsy through a gain of function mechanism. In this project will exploit modified antisense oligonucleotides (ASOs) that target recurrent pathogenic mutations in MAST1. We will test the efficacy of this approach using a platform that relies on human stem cells, harbouring MAST1 mutations. Working closely with industry partners we will use these cells, to generate “min-brains” within the laboratory which model multiple aspects of brain development and have been shown to recapitulate epileptic phenotypes. The student will become skilled in 3D cell culture, physiological methods, single cell sequencing, and will be well positioned for a career that bridges academic and commercial science.

For further information, please contact: David Keays, keays@bio.lmu.de

References: Tripathy et al, 2018

Research group website: keayslab.org

Apply: Please send your application through the [online portal](#) of the Graduate School Life

Science Munich (LSM)