

# PhD Internship in Neuroscience for 12 months - RiSE (m/f/d) - Basel

## Effects of GABAergic dysfunction on brain circuit connectivity

The RiSE program (Roche Internships for Scientific Exchange) is a highly competitive student research program at Roche. It offers the most talented postgraduate PhD and medical degree students the opportunity to be fully integrated into our interdisciplinary and international industry R&D environment. As a RiSE student you will enhance your competencies, gain valuable work experience with us, and eventually become part of a world-wide network of RiSE Alumni. The Neuroscience and Rare Diseases Discovery and Translational Area (NRD DTA) is developing medicines for a range of serious neurological diseases, including multiple sclerosis, Alzheimer's disease, Parkinson's disease, autism, spinal muscular atrophy, and Huntington's disease.

As RiSE student in the NRD, you will join our Neurotransmitter Receptor group within the Systems Neuroscience Section at the Roche Innovation Center Basel, Switzerland. You will perform electrophysiological recordings and MRI analyses of white matter tracts to test the effect of aberrant GABAergic signalling during development on local and interregional connectivity. You will be hosted and mentored by a Roche scientist who will guide you through your research and provide you with the needed work infrastructure and collaborative network.

### During the internship your tasks will include:

- ◆ conduct laboratory research and work closely within a small team of scientists, postgraduate students and research associates
- ◆ perform work with animals (LTK1 certificate or equivalent is required) including brain slice preparation
- ◆ perform patch-clamp recordings from neurons, immunohistochemical stainings and microscopy imaging
- ◆ support fiber-tracking MRI in rodents
- ◆ analyse data and present results during internal meetings

**Who You Are:** You're someone who wants to influence your own development. You're looking for a company where you have the opportunity to pursue your interests across functions and geographies. Where a job title is not considered the final definition of who you are, but the starting point.

### Moreover you are/have:

- ◆ Enrolled in a PhD or medical degree program at a university and are looking to expand your experience with an industry internship ( must be enrolled at university for 50% of the duration of your stay at Roche )
- ◆ Neuroscience background and competency in ex vivo brain slice patch-clamp electrophysiology
- ◆ Good data analysis and statistical capabilities
- ◆ Solid understanding of biochemistry and imaging methods. Programming skills (e.g. python) are desirable

The preferred start date of the internship is October 2023 or upon availability.

**Applications need to include a CV and a cover letter, as well as a letter from your academic supervisor supporting your application to the RiSE Program.** Optional: academic transcripts and additional reference letters

Please note that due to regulations non-EU/EFTA citizens have to provide a certificate from the university stating that an industry internship is mandatory as part of the university training.

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