

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

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. 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 DTA you will join our group in the Neural Signalling Section, and perform at the Roche Innovation Center Basel, Switzerland, working on the characterization of a transgenic mouse model of Parkinson's Disease using state-of-the-art motor behaviour related technologies and image-based quantification of neuropathology. You will be hosted and co-mentored by three Roche scientists 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:

- ◆ Plan and perform animal experimentation in close collaboration with your mentors and laboratory team (LTK1 or similar required).
- ◆ Conduct and potentially develop new analysis methods for studying motor endpoints in mouse models for Parkinson's disease (e.g. using continuous Home Cage Monitoring data, or deep-learning based Markerless Pose Estimation technology).
- ◆ Run biochemical and immunohistological characterization of animal tissues and quantify neuropathology using image analysis.
- ◆ Regular discussion with your mentors and network to advance the project.
- ◆ Summarise your findings for presentation to peers and the broader research community, potentially in a publication.

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:

- ◆ Currently enrolled in a PhD or medical degree program at a university, with a focus on behavioural and systems neuroscience or computation, and looking to expand your experience with an industry internship (must be enrolled at university for 50% of the duration of your stay at Roche). Please note that applications from individuals not enrolled in a PhD or medical degree program will not be considered.
- ◆ Hands-on experience in behavioural and molecular phenotyping of animal models of neurodegeneration (or a closely related area).
- ◆ Strong capabilities in data analytics. Familiarity with Python coding is an added benefit, experience in tissue staining and image analysis is a plus.
- ◆ Highly collaborative mindset; comfortable working in a team setting and in a multifunctional and multicultural environment.
- ◆ Self-motivated and independent problem solver, with focused planning abilities.

The internship can start between January 2024 and March 2024 - please clearly indicate your preferred starting date of internship on your motivation letter.

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. 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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