RiSE - Roche internship for Scientific Exchange - in Deep Learning for MRI Data Analysis (from November, 9 months)

Switzerland, Basel-City, Basel

At Roche, we believe it’s urgent to deliver medical solutions right now – even as we develop innovations for the future. We are passionate about transforming patients’ lives. We are courageous in both decision and action. And we believe that good business means a better world. That is why we come to work each day. We commit ourselves to scientific rigour, unassailable ethics, and access to medical innovations for all. We do this today to build a better tomorrow.

The Position

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 DTA you will join our Translational MRI (magnetic resonance imaging) group in Biomarkers and Translational Technologies, and perform at the Roche Innovation Center Basel, Switzerland, exploratory work on deep-learning artificial intelligence as a novel approach for brain segmentation in preclinical MRI data analysis. 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

◆ working within a multidisciplinary preclinical MRI team composed of 6 scientists, engineers and technicians, being mentored by a principal scientist
◆ identifying deep-learning modalities suitable for high-quality brain segmentation in small animal imaging, and exploratory implementation of the selected deep-network architecture(s)
◆ tapping into an unrivalled rich database of preclinical MRI data for training and bringing alive the artificial intelligence approach
◆ benchmarking the performance of your solution against the existing segmentation approach
◆ publishing your findings in an internationally recognised scientific journal

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 still be enrolled at university for 50% of the duration of the stay at Roche)
◆ educational background in biomedical engineering, informatics and/or machine learning
◆ solid expertise in the theory and application of deep learning and deep-network architecture, preferably applied to neuroimaging problems
◆ routine hands-on experience with related software tools, and pertinent programming skills

The preferred start date of the internship is November 2020 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.

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.

Do you know what Roche stands for? Roche embraces diversity and equal opportunity in a serious way. We are committed to building a team that represents a variety of backgrounds, perspectives, and skills. The more inclusive we are, the better our work will be.

Who we are

At Roche, 98,000 people across 100 countries are pushing back the frontiers of healthcare. Working together, we’ve become one of the world’s leading research-focused healthcare groups. Our success is built on innovation, curiosity and diversity.

Roche is an equal opportunity employer.

Apply now!