



Master (MSc) internship: From stem cells to neuronal phenotypic profiles

Position

This is a unique and exciting opportunity to work in the **Neuroscience Department** at KSILINK in Strasbourg, France. As a Master internship student, you will apply cutting-edge human stem cell technology to study neuron phenotypic changes to pharmacological treatments. You will generate neuronal precursor cells and characterize them using defined fluorescence staining assays, followed by automated microscopy and image analysis. Your objective will be to create a method to quickly detect detrimental drug effects on neurons using phenotypic profiles generated by high-content imaging.

The position is sponsored by the KSILINK Scholarship Program (KSP). The KSP is dedicated to training and developing the next generation of scientific leaders, with a focus on Master students and Post-doctoral scientists. The program provides opportunities for talented scientists to collaborate with academic research groups within the network of the association KSILINK located in France, Germany and other European countries.

The main objective of the KSP is to advance basic science and technologies, with the aim of publishing the research findings in top-rated, peer-reviewed scientific journals. The ultimate goal is to prepare Master students for successful careers in scientific research and to contribute to the future of scientific innovation.

The duration of the KSP project is **6 months**, with the possibility of extension for another 3-6 months.

Your impact

- Differentiate human stem cells into neuronal precursor cells and perform quality control.
- Use already developed high-content cellular fluorescence staining and plate reader assays, perform automated confocal microscopy and image analysis.
- Learn about stem cells, neurons and how to analyze and visualize complex datasets.

- Present data concisely to the team and in a final written report.

Your profile

You seek an organization that allows you to explore your interests in various roles. Working in a multicultural environment motivates you and, as a fast learner, you actively drive your projects forward.

You have a **BSC degree in the Life Sciences** (for example cellular/molecular biology, biotechnology, biochemistry), and are part of a Master's program or graduated from your MSc degree no more than 1 year ago.

Your skills

- Previous cell culture experience is required. Previous work with stem cells would be a plus.
- Basic microscopy knowledge and willingness to learn computational image analysis.
- Interest in image data processing and visualization. Basic experience with Python and Jupyter notebooks would be great, but is not required.
- Fluency in English and excellent communication skills are required. Ability to work independently on problems without a predefined solution and in a team is a must..

How can you apply?

Applications should include a CV and motivation letter and should be sent to contact@ksilink.com. In order for the application to be read and considered, please indicate "KSP" in the e-mail's subject.

In your motivation letter, write a short paragraph about how phenotypic profiling could be applied to neurons and why this interests you. You can start as early as September 2023. Please clearly indicate your preferred starting date in your motivation letter.

We are looking forward hearing from you!