



Master (MSc) internship: Cardiac organoid models

Position

This is a unique and exciting opportunity to work in the **Cardiovascular Department** at KSILINK in Strasbourg, France. As a Master internship student, you will apply cutting-edge human induced pluripotent stem cell (hiPSC) technology to recapitulate the cardiac-vascular interface in vitro. You will generate cardiac organoid models and characterize them using transcriptomics, calcium transient and contractility approaches and assess the applicability for 1) modeling dilated cardiomyopathy (DCM) in vitro and 2) safety assessment by treating the model with known cardiotoxic molecules.

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 initially **set for 6 months**, with the possibility of extension for another 3-6 months.

Your impact

- Develop and characterize human cardiac organoids from hiPSCs.
- Generate "Cardiac-on-Chip" models by co-culturing cardiac organoids, human endothelial cells and human cardiac fibroblasts in a 3D hydrogel.
- Characterize and qualify the resulting cardiac organoids and Cardiac-on-Chip platform using transcriptomics and functional read-outs in order to benchmark the system against published in vivo human data.
- Assess safety profile of cardiac modulators

- Collaborate with a vibrant scientific community with extensive expertise in 3D cultures applied to drug discovery & development.
- Be expected to generate high-quality data for publications in top peer-reviewed journals.
- Liaise with experts in different areas within KSILINK to find synergies and collaboration opportunities

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 (cellular/ molecular biology, bioengineering)**, and being part of a Master's program or graduated from your MSc degree **no more than 1 year ago**.

Your skills

- Technical background in advanced, physiologically relevant, in vitro systems
- Experience with hiPSC differentiation techniques
- Experience with imaging methods, including high-content imaging, live imaging, confocal microscopy, and image analysis software
- Good data science foundational knowledge in the area of cardiovascular biology, with a proven track record in good experimental design
- Fluent in English and excellent interpersonal and communication skills, ability to build good working relationships, and work in a team
- Ability to work independently, design, perform, and interpret experiments, and embark on new scientific methodologies
- Ability to formulate and implement innovative scientific strategy and lab operations and to champion ideas and projects

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.

The start date of this scholarship is as soon as possible or upon availability. Please clearly indicate your preferred starting date on your motivation letter.

We are looking forward to hearing from you!

Ksilink is an equal opportunity employer and follows non-discriminatory practices.