Post-doc in spatial transcriptomics and developmental Biology

The ENS of Lyon is seeking a highly talented **post-doc**. The successful candidate will join the **Spatial-Cell-ID** initiative to develop new technologies in spatial transcriptomics to understand the biology of single cells in their native tissue.

Spatial-Cell-ID is a consortium of teams funded by the French "EquipEx+" excellence initiative and led by the École Normale Supérieure of Lyon (ENSL). The consortium aims to study cellular identity and its spatial heterogeneity within tissues, organs, or biological systems in normal and pathological contexts, through very recent developments in spatial transcriptomics. Spatial transcriptomics technologies were designated "Method of the Year 2020" by the Nature Methods journal and are currently revolutionizing our ability to study complex biological systems. Spatial-Cell-ID offers equipment for spatial transcriptomics integrating imaging, sequencing, and data analysis technologies, which in synergy will provide access to the transcriptome of any single cell within its native spatio-temporal environment. It hosts a comprehensive selection of technologies, including single-cell transcriptomics (10x Genomics), untargeted spatial transcriptomics (e.g., Slide-seq), and targeted spatial transcriptomics (e.g., MERFISH), associating state-of-the-art technological platforms of the University of Lyon.

Role: The appointed candidate will develop a targeted spatial transcriptomic technology based on ***smFISH***. The recruited post-doc will be working at at the **IGFL** (ENS of Lyon) in the **Enriquez team** and will closely collaborate with biologists, microscopists, biophysicists, and computer scientists who will assist him/her in the different aspects of this highly interdisciplinary project. The candidate will be involved in one or more of the three main projects involving spatial transcriptomic: 1. Discover of the gene networks controlling neuronal and muscle identity in Drosophila, 2. Generate a single cell smFISH atlas of the Drosophila Embryo in 3D at the cellular level and 3. Determine the spatiotemporal regulation of Arabidopsis thaliana root identity.

Profile:

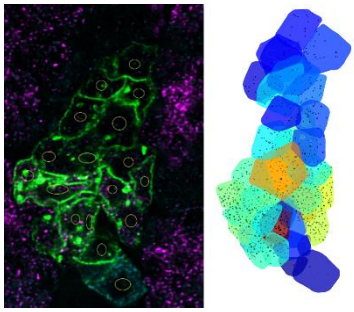
- PHD in Biology is required.
- Strong interest in molecular biology, smFISH.
- Experience or the aptitude to quickly become proficient with the different steps involved in spatial transcriptomics experiments: design of probes, smFISH experiments, image acquisition and analysis.
- Excellent communication and collaboration skills. English is the working language.
- Experience in confocal and Sted imaging and image data analysis of biological systems is a plus.

Desired starting date: December 2022
Contract duration : 2 years with a possibility of extension
Salary : Remuneration based on experience (from 2000€/ to 3000€/month)

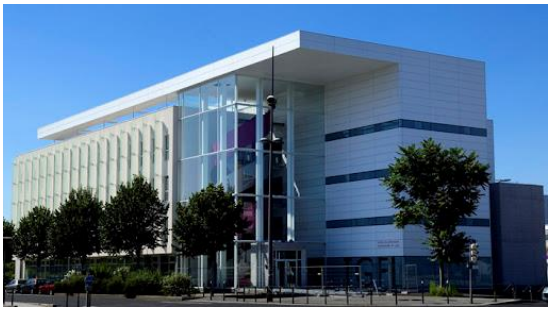
The employer : The **École Normale Supérieure de Lyon** is an elite French public higher education institution that trains professors, researchers, senior civil servants as well as business and political

leaders. It is a symbol of French Republican meritocracy and it remains committed to disseminating knowledge to the widest audience and to promoting equal opportunity. The ENSL brings together several laboratories at the cutting edge of science working in different fields of Biology, Mathematics, Physics and Humanities.

Instructions for applicants : Applications should include a CV, a cover letter, and contact details for 3 referees to be sent to: Jonathan Enriquez (jonathan.enriquez@ens-lyon.fr) & Sigolène Lecuyer (sigolene.lecuyer@ens-lyon.fr). **Please use the email subject "Spatial Cell ID".** For further information please contact the same addresses. Applications will be considered upon submission.



smFISH



IGFL

Enriquez team