

Research position to implement a cryo-Correlative Light and Electron Microscopy (CryoCLEM) workflow in Bordeaux

We are looking for a motivated cell biologist to implement and develop cell culture manipulation and sample preparation for fluorescence imaging in cryogenic conditions, under a collaborative environment between the Bordeaux Imaging Center and the Interdisciplinary Institute for Neuroscience.

The NanoCryoCLEM project funded by Equipex+ is coordinated by the University of Bordeaux, and aims to establish a cryo-CLEM workflow for super-resolution observation. In this context, the Bordeaux Imaging Center (BIC), the Institute interdisciplinaire de Neurosciences (IINS), and the Institute d'optique (LP2N), will collaborate to develop a new super-resolution optical system in cryogenic conditions. The ultimate goal of this project is to localize a region of interest in frozen hydrated samples at nanoscale resolution in light microscopy and to observe these regions by cryo-electron tomography in the Institute Européen de Chimie et Biologie (IECB).

The main activities of the candidate will include:

- Cell culture manipulation, transfection and labeling.
- Fast cryo-fixation of cells by plunge freezing or high pressure freezing.
- High resolution fluorescence microscopy in cryogenic conditions.
- Image treatment and analysis.

The candidate must have a PhD or at least 2-3 years of experience, and advanced expertise in **cell biology** and **fluorescence microscopy** techniques. In-depth knowledge of protein labeling biochemistry in cell cultures will be an advantage. Previous experience in cryo-fixation techniques and liquid nitrogen manipulation will also be an asset.

The candidate will be working in a multidisciplinary environment and will have access to sophisticated facilities and state-of-the art equipment, thus strong **team working** skills and **fluid English** will be asked. The project will be developed in the Bordeaux Neurocampus department, which coordinates joint activities (internal communication, seminars, doctoral training, international meetings and outreach activities). The contract is 1-year renewable up to 4 years, salary depending on experience.

Please contact the [BIC](mailto:monica.fernandez-monreal@u-bordeaux.fr) (monica.fernandez-monreal@u-bordeaux.fr) and the [IINS](mailto:gregory.giannone@u-bordeaux.fr) teams (gregory.giannone@u-bordeaux.fr and daniel.choquet@u-bordeaux.fr) for further information.