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**Looking for a research engineer or PostDoc position at IINS Bordeaux,
“High and super-resolution imaging of brain slices using single objective SPIM”**

The Quantitative Imaging of the Cell team @ Interdisciplinary Institute for Neuroscience (IINS) is seeking to recruit a research Engineer, or post-doc, interested in optimizing the recently developed soSPIM technique [1] to image brain slices with high spatial and temporal resolutions. Imaging molecular organization and transport at high spatial and temporal resolutions in physiological context is very challenging due to brain slices complexity and the lack of sensitivity of existing imaging techniques.

The project aims at adapting the soSPIM imaging technique, which combines high numerical aperture objective with dedicated micro-fabricated device featuring 45° mirrors, to achieve high- and super-resolution imaging of brain slices at several tens of microns above the coverslips. It will involve i) the design and micro-fabrication of specific holders for brain slice imaging, and ii) the implementation of dedicated imaging protocols adapted to the soSPIM geometry, including local photo-perturbation and single molecule imaging.

This project will be conducted in close collaboration with several neuroscience teams at IINS who will be in charge of brain slice culturing and labelling.

Requirements:

Applicants are expected to have a strong engineer training with expertise in soft lithography processes or advanced optical microscopy for biology. Knowledge in single-molecule based super-resolution methods is recommended but not mandatory. The position is opened to research engineer and post-doctorate candidates, and is expected to start prior January 1st 2018.

Contact:

Interested candidates should email a recent CV, a letter motivation and the names of two to three references to Jean-Baptiste Sibarita and Rémi Galland.

emails: jean-baptiste.sibarita@u-bordeaux.fr; remi.galland@u-bordeaux.fr

Reference:

1. Galland, R., et al., *3D high- and super-resolution imaging using single-objective SPIM*. Nat Methods, 2015. **12**(7): p. 641-4.