Laboratory for Optics and Biosciences
Ecole Polytechnique - CNRS - INSERM
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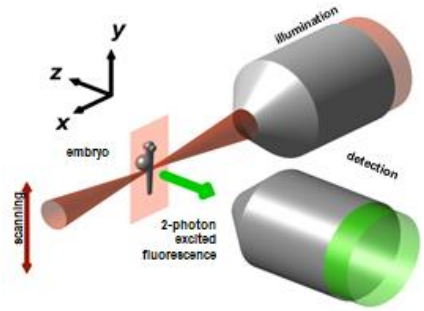
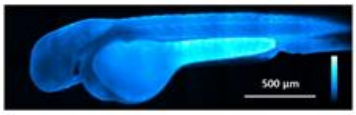
Post-doctoral position

Fast Fluorescence Lifetime with Light Sheet Microscopy for metabolic imaging of zebrafish embryos and brain organoids

Laboratory for Optics and Biosciences,
Ecole Polytechnique, Paris-Saclay area, France





The Advanced Microscopies & Tissue Physiology group at the Laboratory for Optics and Biosciences (LOB), Ecole Polytechnique, University of Paris-Saclay, France, is seeking a highly motivated and talented postdoctoral scientist with interest in interdisciplinary optical microscopy and biophysics research.

The Laboratory develops advanced methods in nonlinear optics, tissue microscopy, image analysis, cell/developmental biology, and biophysics for studying intact biological tissues with subcellular resolution.

Candidates should have a solid background and good experimental skills in optics and/or microscopy and should be strongly motivated and keen to work in an interdisciplinary research field. Previous experience in optical imaging and fluorescence lifetime microscopy will be an asset.

The successful candidate will develop novel approaches for **fast fluorescence lifetime imaging of endogenous fluorophores based on single plane illumination microscopy with time-domain fluorescence lifetime imaging microscopy (SPIM-FLIM) with application to metabolic imaging in zebrafish embryos and brain organoids.** The postdoctoral fellowship is funded by a 2023 Chan Zuckerberg Initiative grant, Measuring Metabolism across scales. The awarded project: "*scNeuroMET: Metabolic Reprogramming During Neurogenesis in Single Cells*" aims to to decipher metabolic transitions during neurogenesis at sub-cellular resolution in live single cells using advanced non-linear optics and to explore the contribution of transcriptional regulators.

The postdoctoral appointment will be for **2 years**. Detailed information about the research can be requested via email. Interested applicants should submit a CV to Chiara Stringari at chiara.stringari@polytechnique.edu and Pierre Mahou at pierre.mahou@polytechnique.edu . Applications will be reviewed on a rolling basis, starting immediately.

Some related references from our group: Mahou, Nat. Methods. (2014) doi: 10.1038/nmeth.2963. Stringari, Cell Rep (2017) doi: 10.1038/s41598-017-03359-8; Ung et al sci report (2021) doi: 10.1038/s41598-021-00126-8. E Sánchez-Ramírez, et al. Journal of Cell Biology (2022) doi: 10.1083/jcb.202111137*; Gottlieb at al. Biological Imaging (2023), doi: 10.1017/S2633903X23000211*

https://lob.ip-paris.fr/recherche/advanced-microscopies-and-tissue-physiology