



**Laboratory for Optics and Biosciences**

INSERM U1182 - CNRS UMR7645

ÉCOLE POLYTECHNIQUE

91128 PALAISEAU, FRANCE

[www.lob.polytechnique.fr](http://www.lob.polytechnique.fr)



**Inserm**

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## **Research engineer or postdoc position**

### **Wavefront control for live tissue imaging**

*18 months – available now*

**Laboratory for Optics and Biosciences,  
Ecole Polytechnique, Palaiseau, France**

The advanced microscopies & tissue physiology group at the Laboratory for Optics and Biosciences (LOB), Ecole Polytechnique, France, is seeking a talented engineer or junior postdoctoral scientist with background in instrumentation/optics and interest in interdisciplinary optical biomicroscopy research.

The LOB has world-acknowledged expertise in nonlinear optical imaging, and develops advanced methods in multiphoton microscopy, biological tissue imaging, image analysis and neuro/developmental biology for studying intact tissues with subcellular resolution.

Candidates should have a good background in optics and software programming, and should be motivated to work within a state-of-the-art interdisciplinary research program. Previous experience in optical microscopy would be an asset.

The successful candidate will implement and develop novel approaches for wavefront correction in the context of in vivo imaging and photomanipulation. The work will involve the installation of a light modulator in an existing multiphoton microscope equipped with femtosecond laser sources, and the implementation of sensorless correction strategies based on previous expertise by the group (Facomprez Opt Exp 2012, Zeng Biomed Opt Exp 2012). These developments will be applied to photomanipulation, two-photon and three-photon imaging (Guesmi Light Sci App 2018) of anesthetized live fish, in the context of an ongoing collaboration between Ecole Polytechnique and Institut Pasteur (Dray Development 2015).

The appointment will be for 18 months, available immediately, funded a Region Ile-de-France / DIM ELICIT project. Further extension can be discussed. More information about the project and work environment can be requested via email: interested applicants should send a short motivation letter and CV with reference names to Emmanuel Beaurepaire ([emmanuel.beaurepaire@polytechnique.edu](mailto:emmanuel.beaurepaire@polytechnique.edu)) before June 12th.

For more information on research at LOB microscopy group, please visit: <https://portail.polytechnique.edu/lob/en/research/advanced-microscopies-tissue-physiology>