
Despite the growing interest in the development of fluorophores for live-cell imaging, challenges still remain to be tackled.\[^1\] An ideal fluorophore should be water-soluble, photostable, cell-permeant and should absorb and emit at wavelengths compatible with live-cell imaging. Two-photon excitation offers a great opportunity to fulfill these last criteria and the team has a long expertise in the development of two-photon excitation fluorophores.\[^2\] In this project, we would like to develop fluorogenic click reactions with two-photon excitable probes. The design relies on the conjugation of a fluorophore with a fluorescence quencher. A biorthogonal fluorogenic click reaction with a partner (e.g. a drug) should allow the cellular localization of the click partner with an optimal signal / background ratio. The project involves the design and synthesis of the probes, the evaluation of their photophysical properties and their imaging through one- and two-photon excitation microscopy.

An expertise in organic synthesis and optical (fluorescence) spectroscopy is required; basic knowledge in cell culture and fluorescence microscopy would be appreciated.

This 12-month position (renewable) is due to start in September 2021. Applicants are required to send a CV and a cover letter as soon as possible.

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