

3-year PhD fellowship - full employment
salary (after deduction of social security and medical insurance)
€ 1450 + ca. € 50 transportation supplement
(+remuneration for potential teaching assignments, variable)

The Chemical Biology of Enzyme-Responsive Probes for Molecular Imaging

Chemistry Laboratory, University of Lyon—Ecole Normale Supérieure de Lyon
Prof. Jens Hasserodt

Start: Fall 2016

Keywords: synthetic organic chemistry, organic fluorophores, coordination chemistry, synthetic chemistry of poly-aza macrocycles, iron(II) complexes, enzyme kinetics, cell culture, reactive oxygen species, micro-NMR device, fluorescence microscopy.

Collaborations: Karlsruhe, Osaka, Changsha, and Sao Paulo.

The successful candidate will have received solid prior training in various fields of synthetic chemistry (internships & master thesis). In the best of cases, the submitted CV (+ letter of motivation) should contain information on the ranking with respect to peers in the student's university education. The student can look forward to receiving excellent training at the forefront of science. The student will himself evaluate the fruits of his synthetic efforts regarding enzyme incubation/response, NMR monitoring, cell incubation and fluorescence microscopy. The student will likely visit one or more of the sites of the collaborating groups above.

For further details, see publications below.

- (1) Prost, M., Canaple, L., Samarut, J., and Hasserodt, J. (2014) Tagging live cells which express specific peptidase activity with solid-state fluorescence. *ChemBiochem* 1413–1417.
- (2) Review : Hasserodt, J., Kolanowski, J.-L., and Touti, F. (2014) Magnetogenesis in Water Induced by a Chemical Analyte. *Angew. Chem.-Int. Edit.* 53, 60–73.
- (3) Touti, F., Maurin, P., and Hasserodt, J. (2013) Magnetogenesis under Physiological Conditions with Probes that Report on (Bio-)Chemical Stimuli. *Angew. Chem.-Int. Edit.* 52, 4654–4658.
- (4) Prost, M., and Hasserodt, J. (2014) "Double gating;" a concept for enzyme-responsive imaging probes aiming at high tissue specificity. *Chem. Commun.* 50, 14896–14899.

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