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## **POSTDOCTORAL POSITION IN CHEMICAL BIOCONJUGATION OF PROTEINS**

**TITLE:** Photocatalytic bioconjugation of proteins for bioimaging applications.

**KEY WORDS:** Photoredox catalysis, organic synthesis, bioconjugation of proteins, fluorescence.

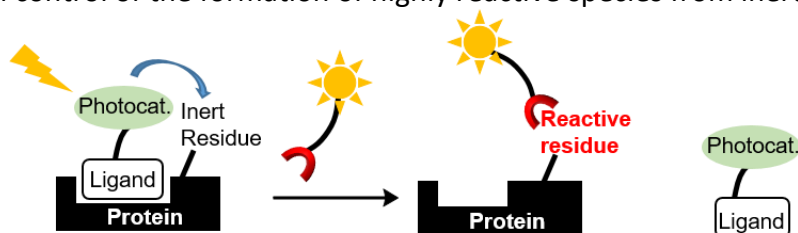
**FUNDING:** Network of Norman Interest

**EXPECTED STARTING DATE:** March-April 2022

**GROSS SALARY:** 2840 € per month

**PROJECT:** Visualizing the localization, dynamics and interactions of proteins provides important information for understanding how cells respond to environmental and genetic perturbations, or to (bio)chemicals in the context of drug discovery.

Traditional protein labelling reactions rely on the use of electrophilic functions that suffer from low chemoselectivity and low protein-specificity, which limit their scope mostly to *in vitro* applications. In contrast, visible-light-induced photoredox catalysis has recently emerged as a mild alternative method for protein-specific and site-specific bioconjugation (for a recent review, see: *Chem. Rev.* **2022**, *122*, 1752–1829). The use of light allows a spatiotemporal control of the formation of highly reactive species from inert substrates.



This project aims at developing new photoredox catalyst/substrate pairs to diversify the scope of light-induced bioconjugations in terms of targeted residues. This strategy will be examined for the late stage modification of peptides and proteins either isolated or in complex mixture such as in cell lysates.

**CANDIDATE PROFILE:** We are looking for highly motivated candidates having a PhD in Organic Chemistry. An experience in bioconjugation and/or in photoredox catalysis would be a plus.

**APPLICATION PROCEDURE:** A detailed curriculum vitae, a short research summary, and two contacts able to provide a recommendation sent to:

[cyrille.sabot@univ-rouen.fr](mailto:cyrille.sabot@univ-rouen.fr) & [pierre-yves.renard@univ-rouen.fr](mailto:pierre-yves.renard@univ-rouen.fr).