



## POSTDOCTORAL POSITION IN MEDICINAL CHEMISTRY

**Project description:** Poisoning by organophosphorus nerve agents (OPNAs) and pesticides is a serious public health and military concern. The acute toxicity of OPNAs results from the irreversible inhibition of acetylcholinesterase (AChE), which regulates cholinergic transmission in the peripheral and central nervous system (CNS) by hydrolysing acetylcholine. Conventional emergency treatment for OPNA poisoning involves the rapid administration of pyridinium oxime antidotes to reactivate AChE. However, current antidotes have several drawbacks, and the reactivation of AChE in the CNS remains inefficient. As part of the European project "RESILIENCE," this research aims to develop new generations of reactivators as effective treatments for OPNA poisoning.

**Keywords:** Medicinal chemistry, organic chemistry.

**References:** *J. Med. Chem.* **2022**, *65*, 4649-4666; *ACS Chem. Neurosci.* **2020**, *11*, 1072-1084; *Chem. Eur. J.* **2018**, *24*, 9675-9691; *RSC Advances* **2016**, *6*, 17929-17940; *Chem. Commun.* **2014**, *50*, 3947-3950; *Acc. Chem. Res.* **2012**, *45*, 756-766; *J. Med. Chem.* **2012**, *55*, 10791-10795; *Chem. Commun.* **2011**, *47*, 5295-7

**Profile:** The candidate should be a skilled organic synthetic chemist with a PhD in organic chemistry. A background in docking studies and in vitro biological evaluations (Ellman's test) would be an asset. The successful candidate must be self-motivated, hard-working, an independent thinker, and possess good communication skills and a strong team spirit.

**Starting date:** June-July 2025

**Duration:** 12 months (possibility for a 1 year-extension)

**Location:** Laboratory CiTCoM CNRS UMR 8038, Team « Medicinal chemistry and translational research » (Inserm U1268), 4 Avenue de l'Observatoire, F-75006 Paris, France

**Salary:** Approximately €2,000 – 2,500 net per month

**Application Process:** Candidates should send their applications via email to Pr Ludovic Jean ([ludovic.jean1@u-paris.fr](mailto:ludovic.jean1@u-paris.fr)) and Dr Lucas Pagès ([lucas.pages@u-paris.fr](mailto:lucas.pages@u-paris.fr)). The application should include a CV, cover letter, a short research summary, a list of publications, and two recommendation letters.