

AVAILABLE POSTDOCTORAL POSITION IN BIO-ORGANIC CHEMISTRY

Our research group, located at UMR 6014 COBRA-CNRS Rouen (France), is currently looking for an postdoctoral research fellow to work on the ANR project called “CNS-antidote”.

Project description:

Poisoning by organophosphorus nerve agents (OPNAs) and pesticides is a serious public and military health issues. The acute toxicity of OPNAs results from the irreversible inhibition of acetylcholinesterase (AChE), which regulates cholinergic transmission in the peripheral and in the central nervous system (CNS) by hydrolysing acetylcholine. Conventional emergency treatment of OPNA poisoning consists of rapid administration of pyridinium oxime antidotes for reactivation of AChE. Current antidotes present several drawbacks and the reactivation of AChE in the CNS is still inefficient. Based on our previous results, the objective of this project is to develop a new generation reactivators with a broad spectrum of action efficient against exposures to sarin, VX, tabun or paraoxon, and acting on central cholinesterases. Delivering drugs to the brain is challenging given the selective permeability of the BBB. Our approach is based on the structural modification of developed reactivators so as to increase their ability to cross efficiently the BBB and reactivate AChE in the CNS (*Chem. Commun.* **2011**, 47, 5295-7; *J. Med. Chem.* **2012**, 55, 10791-10795 ; *Acc. Chem. Res.* **2012**, 45, 756-766; *Chem. Commun.* **2014**, 50, 3947-3950; *RSC Advances* **2016**, 6, 17929-17940).

Profile:

The candidate should be a skilled organic synthetic chemist. He (she) should have received his PhD diploma in organic chemistry. A background in docking studies and in vitro biological evaluations (Ellman's test) would be an asset. He (she) must be self-motivated, hard-working, independent thinker and have good communication skills and a good team spirit.

Starting date: January 2018

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

Location: Laboratory COBRA, UMR 6014 COBRA, IRCOF, 1 rue tesnière, 76821 Mont Saint Aignan, France.

Applications should be sent by e-mail to Pr. Pierre-Yves Renard pierre-yves.renard@univ-rouen.fr and Dr. Ludovic Jean ludovic.jean@univ-rouen.fr including: CV, a letter of motivation, a short research summary with the list of publications and at least 2 recommendation letters.