

Postdoctoral Position in Chemical Biology – LBM- Sorbonne Université

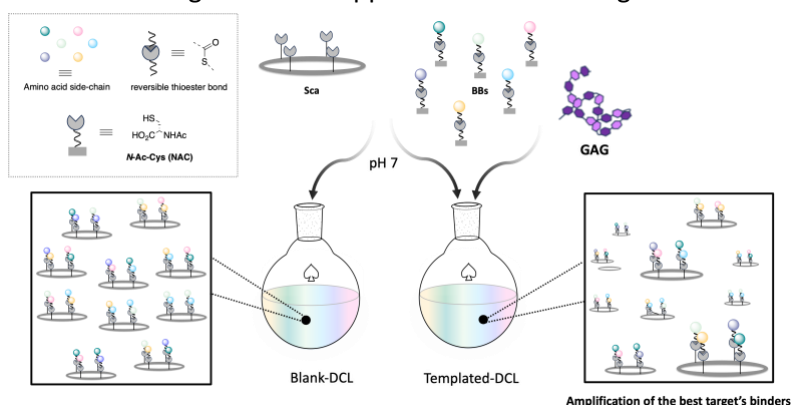
Details Vacancy: In the context of an ANR-funded project (DynaCycloP), a 12 months post-doctoral fellowship in chemical biology (possible renewal 12 months) is available in the Laboratoire des Biomolécules (UMR CNRS 7203) at Sorbonne Université, under the supervision of Dr Roba Moumné and Dr Emmanuelle Sachon, starting from January 2025 or later (flexible).

Location: The laboratoire des Biomolécules (<https://www.chimie.ens.fr/recherche/laboratoire-lbm/>) is a joint unity of Sorbonne Université, Ecole Normale Supérieure Paris and CNRS (UMR7203). It is located on the Jussieu Campus in the Latin Quarter, in the center of Paris.

Keywords: Peptide Chemistry, Dynamic Combinatorial Chemistry, Glycosaminoglycan, Mass Spectrometry Quantification.

Research Program:

DynaCycloP (Dynamic combinatorial library of CycloPeptides) project lies in the field of chemical biology and aims at designing an innovative, economical and straightforward approach to build large libraries of conformationally constrained and biologically stable cyclopeptides for ligand screening. For this purpose, dynamic combinatorial chemistry (DCC) is used as a tool to graft amino acid side-chains on a well-ordered peptide scaffold, allowing the combination of ligand synthesis and screening in a single step. The proof of concept will be established using glycosaminoglycans (GAG) as a biological target, for the development of cell-targeting therapies.



In the context of collaborations with three partners (PPSM, ENS Paris-Saclay; IBMM, Université de Montpellier and ICOA, université d'Orléans) new analytical approaches and synthetic tools for the characterization of large dynamic combinatorial libraries (DCL) and identification of hits that will ultimately validate the developed strategy as a powerful tool for ligands discovery will be investigated. The present offer focuses on the development of a new methodology for the quantification of DCC amplification by mass spectrometry (MS).

Skills: Candidates should have a PhD in organic chemistry or chemical biology. A strong expertise in peptide and organic synthesis as well as characterization techniques (NMR, MS, HPLC) is recommended and a clear enthusiasm to work at the interface between chemistry and biology is mandatory. Background in MALDI-MS would be a plus.

Application: Highly motivated candidates are invited to send a cover letter and a detailed CV including a publication list as well as references to R. Moumné (roba.moumne@sorbonne-universite.fr) and E. Sachon (emmanuelle.sachon@sorbonne-universite.fr).

References:

Rodrigues, A.; Rocard, L.; Moumné, R. [Peptide and Peptidomimetic Assemblies in Dynamic Combinatorial Chemistry](#). *ChemSystemsChem* **2023**, e202300011; Zagiel, B.; Peker, T.; Marquant, R.; Cazals, G.; Webb, G.; Miclet, E.; Bich, C.; Sachon, E.; Moumné, R. [Dynamic Amino Acid Side-Chains Grafting on Folded Peptide Backbone](#). *Chem. Eur. J.* **2022**, e202200454; Peker, T.; Zagiel, B.; Rocard, L.; Bich, C.; Sachon, E.; Moumné, R. [Analytical Tools for Dynamic Combinatorial Libraries of Cyclic Peptides](#). *ChemBioChem* **2023**, e202300688.