



UNIVERSITÉ DE
MONTPELLIER



IBMM
Institut des
Biomolécules
Max Mousseron

POST-DOC++ in BioOrganic Chemistry

Who we are looking for: A highly motivated organic chemist, with an experience in biomolecules and 0-3 years post-PhD experience, willing to develop his/her research interests in a vibrant academic environment. **Important criteria:** his/her motivation should be reflected in a strong desire to apply to [MSCA fellowship](#), [ERC starting Grant](#), and/or University or [CNRS permanent positions](#).

What we offer: A **funded 18-month post-doctoral position** at the [Institut des Biomolécules Max Mousseron \(IBMM\)](#), and the **support and training for submitting research grant applications**. We provide chemical fume-hoods equipped with conventional and green technologies (ball-mills) for bioorganic synthesis, as well as cutting-edge purification and analytical tools (analytic/preparative HPLC, HPLC-MS, CE-UV, CE-MS, UV-Vis and fluorescence spectrometers). Complementary access to NMR and mass spectrometry facilities is provided by the [Balard Chemistry Analysis and Characterization Platform](#) located in the same Balard building.

Salary: 35 k€ annual gross salary + 8 k€ for equipment & travelling. The project is funded through the “TALENTS” program of the PTL CARLA (“Projet Thématique Long Chimie durAble pour La sAnté”), [Pôle de Recherche Chimie](#), [Université de Montpellier](#).

Starting date: September-December 2025.

Research topic: **MecAPeps, Mechanical growth of Analogues of Peptide macrocycles.**

Project: The candidate will develop a **green synthetic technology**¹ to access **biomimetic analogues of cyclic peptides** which emerge spontaneously, upon mechano-activation (ball-milling), from complex **dynamic combinatorial libraries**² of amino acid derivatives.³

References: 1. Sustainable Mechano-synthesis of Biologically Active Molecules, O. Bento, F. Luttringer, T. M. El Dine, N. Petry, X. Bantreil, [F. Lamaty](#), *Eur. J. Org. Chem.*, **2022**, e202101516; 2. Dynamic covalent synthesis, F. B. L. Cougnon, A. R. Stefankiewicz, [S. Ulrich](#), *Chem. Sci.*, **2024**, *15*, 879; 3. Dynamic Amino Acid Side-Chains Grafting on Folded Peptide Backbone, B. Zagiél, T. Peker, R. Marquant, G. Cazals, G. Webb, E. Miclet, [C. Bich](#), E. Sachon, R. Moumné, *Chem. Eur. J.*, **2022**, *28*, e202200454.

Who we are: The [IBMM](#) (ca. 320 employees, 16 teams) focuses on the chemical synthesis, molecular and supramolecular engineering, and the pharmacological study of biomolecules (e.g. nucleosides/nucleotides/nucleic acids, peptides/proteins, glycosides, lipids), as well as their analogues, derivatives and conjugation products, for health applications. The **MecAPeps** project will gather partners from three different IBMM teams all located in the new Balard building: [Glycochimie & Reconnaissance Moléculaire](#) ([Sébastien ULRICH](#)), [Chimie Verte et Technologies Innovantes](#) ([Frédéric LAMATY](#)), and [Sciences Analytiques des Biomolécules](#) ([Claudia MURACCIOLE BICH](#)).

The environment: [Université de Montpellier](#) (UM) is a research-intensive university where education and research cover most of the Scientific and Technological fields. UM gathers around 50,000 students, including about 1800 PhD students, and 4800 staff members. UM is currently involved in several European and national projects, including H2020/HE (ERC & MSCA) and Erasmus as coordinator or partner: 8 MSCA doctoral networks/ITN, 4 MSCA Postdoctoral Fellowship, 4 ERC, 3 Erasmus Joint Master Degree.

Selection procedure: ongoing basis with a **deadline of May 31, 2025**.

Application: send cover letter and CV to sebastien.ulrich@cnrs.fr and frederic.lamaty@umontpellier.fr.