



Open Post-doctoral position - IBMM - Montpellier

Synthesis of silicon-containing amino acid pre-markers for ^{18}F -radiolabeling of neurotensin NT[8-13] analogues

- **Duration** 18 months (from January 2023 to July 2024).
- **Funding** Alliance nationale pour les sciences de la vie et de la santé (Aviesan) - salary according to Montpellier University remuneration.
- **Candidate profile** PhD in Chemistry from less than 3 years.
- **Application deadline** 15th October 2022.

PROJECT DESCRIPTION

We have identified the neurotensin receptor-1 (NTS1) as an excellent target for detecting and imaging certain prostate and breast cancers in patients with poor prognosis, by Positron-Emission Tomography (PET). Based on our previous results with ^{68}Ga -neurotensin conjugates, the present project aims to design a novel series of neurotensin analogues targeting NTS1, for ^{18}F -radiolabeling, enabling wider availability of this promising class of radiopharmaceuticals. The strategy envisaged consists in developing the stereoselective synthesis of silicon-containing amino acids as pre-marker of the formation of a ^{18}F -Si bond, which can be introduced either into the sequence or as prosthetic group at the C-ter or N-ter position of the sequence.

Key words : stereoselective synthesis - modified amino acids - peptide synthesis - ^{18}F radiolabeling - PET imaging

CANDIDATE PROFILE

The candidate must have a Ph.D. in organic or medicinal chemistry and excellent skills in synthesis, purification and characterisation of products (NMR, LCMS, and semi-preparative HPLC). Experience in solid supported synthesis will be appreciated. We are looking for candidates highly motivated by scientific challenges and with a results-oriented attitude. The ability to work in a multidisciplinary research team, as well as effective communication and writing skills with a good mastery of the English language are essential for a successful selection. French knowledge is appreciated but not necessary.

CONTEXT

The recruited candidate will join **the team « Stereoselective Synthesis & Modified Amino Acids »** headed by Dr Florine Cavelier at IBMM-DAPP (Institute of biomolecules Max Mousseron, Amino Acids and Peptides Department), located in the Pôle Chimie Balard in Montpellier. The project will be carried out in collaboration with researchers specializing in radiolabeling of biomolecules (Dr. Clément Morgat, INCIA Bordeaux).

Application modalities : Candidates must submit a cover letter, CV and have two letters of reference sent by e-mail directly to emmanuelle.remond@umontpellier.fr and florine.cavelier@umontpellier.fr