

Post-doctoral position in Medicinal Chemistry

Institut des Biomolécules Max Mousseron, Montpellier, France

Keywords: Organic chemistry, Synthesis, PROTAC.

We are looking for highly motivated and creative post-doc to join the Department of Amino Acids, Peptides and Proteins, Montpellier (France) in the Peptide team (www.ibmmpeptide.com). The IBMM-Peptide research group belongs to the Institute of Biomolécules Max Mousseron (IBMM, Université de Montpellier, CNRS, ENSCM), an international research institution belonging to Pôle Chimie Balard (600 researchers in chemistry, 80 post-doc and 50 PhD/year). The research activities of the IBMM are positioned at the chemistry/biology interface, aiming to study and understand the mechanisms of action of biomolécules for the treatment of various pathologies. IBMM already designed two marketed drugs and is interested in the design, synthesis and biological studies of bioactive compounds and materials.

Missions and project

The post-doctoral research assistant will be in charge of the development of proteolysis targeted chimera (**PROTAC**) molécules with potential applications in **diffuse intrinsic pontine glioma (DIPG)**. DIPG is an incurable pediatric cancer characterized by **epigenetic alterations** and abnormal activation of several **kinase receptors**. Small molécule inhibitors targeting these mutations were developed but did not show sufficient efficacy in DIPG. Thus, the objective of this project is to develop PROTAC derivatives with enhanced properties exploiting these targets.

Synthesis of inhibitors, optimization of the **linker part** of the PROTACs and study of different **recruiting elements** will allow to constitute several **libraries of PROTAC**. We have partnered with a biology team interested in the development of innovative therapies in DIPG in order to test these PROTAC compounds and validate their efficacy *in vitro* (alone or in combination). Their ability to cross the blood-brain barrier and their ability to eliminate DIPG cells *in vivo* will also be explored.

Starting: May 2022.

Profile

The post-doc fellowship is granted by the French National Institute of Cancer (INCa) for **12 months** (2100 €/months without taxes). The contract could be possibly extended. Candidates should have a PhD and strong skills in Organic Chemistry. An experience in Medicinal Chemistry is not required but would be appreciated.

Candidates should send a **cover letter**, a **CV** and **2 letters of recommendation** or **2 references** to cyril.fersing@umontpellier and nicolas.masurier@umontpellier.fr