



## Protein Biology-Biochemistry Engineer

### Scientific background - Hosting structure :

As part of the Architecture and Functions of Biological Macromolecules (AFMB) laboratory, the Marseille Screening Center (MaSC) is a 3-site screening platform specialized in the development and implementation of new technologies dedicated to :

- drug design
- discovery and characterization of new bioactive molecules
- screening of chemical libraries

Labelled IBISA in 2022 and Aix-Marseille platform in 2023, MaSC is present as a major player in the search for antiviral and anticancer compounds and inhibitors of protein-protein or protein-ligand interactions. The combination of our experience and know-how, combined with the complementary nature of our facilities, creates a dynamic interface conducive to project development and optimization.

MaSC comprises

- CRCM's high-throughput screening platform (HiTS)
- Marseille Timone viral screening platform (PCVMT)
- The Marseille Luminy screening platform (PCML), to which the recruited engineer will be attached.

As part of the PIA 4 "Excellences" call for projects, the CISAM+ project led by Aix-Marseille Université (AMU), via the Cité de l'Innovation et des Savoirs d'Aix-Marseille (CISAM) and the A\*MIDEX Foundation, has been selected. The MaSC platform is one of the winners, enabling it to recruit an engineer in Biology-Biochemistry for 24-month period.

### Tasks and activities

Working as part of the MaSC screening platform (PCML site), the engineer will have to adapt to the experimental conditions and carry out a range of specialized techniques for sample preparation, analysis, characterization and high-throughput robotized screening.

More specifically, the person recruited will be responsible for :

- Main activity: Produce and purify viral proteins required for the various projects of the screening platform, as well as proteins associated with these projects (antibodies, VHH, etc.).
- Secondary activity: Develop and/or implement tests to characterize antiviral compounds using biochemical techniques (enzymatic activity and sequencing gel analysis).
- Assist the platform's research engineer in setting up and running screening campaigns (from 500 to 20,000 compounds) and biophysical characterization tests.
- Participate in the implementation of a quality approach by validating protein stocks produced and/or assays developed
- Manage stocks of reagents and consumables and orders for protein production/purification
- Communicate results and reports to the research engineer and platform manager
- Contribution to training students and employees in the use of the platform's equipment
- Training trainees in protein production/purification
- Participate in common laboratory tasks

### Scientific skills and know-how :

- Biology/Biochemistry.
- Experience in protein production/purification (ideally E.Coli system)
- Knowledge of AKTA-type purification systems will be a significant plus
- Knowledge of biochemical techniques (enzymatic activities, gel sequencing, etc.)



- Knowledge of biophysical and structural techniques (e.g. TSA, thermopheresis, crystallography, cryo-EM...) will be a plus.
- Rigor and organization essential: precision work on robotized systems (AKTA, Mosquito, Beckman 4000, Beckman I5 systems)
- Management of parallel projects and deadlines, in particular respecting deadlines for services
- Traceability of results (archiving, reports, etc.) and quality approach
- Ability to work as part of a team on multiple projects in collaborative and cross-functional mode for both the academic and industrial sectors.
- Ability to work in good health and safety conditions.
- Ability to communicate orally and in writing in English.
- Strong appetite for experimental work, with diversified technological approaches (predominantly technical: "bench" work).

#### **Limiting conditions :**

Part of the screening platform's equipment is located in a type L2 laboratory, where radioactivity (H3, P32) is handled, and access to which is subject to restrictions (medical examination and prior authorization). The laboratory is also GMO/MOT approved. The engineer must be able to meet these clearance criteria even if he/she will not be handling radioactivity and/or MOTs.

Because of the specific equipment required to carry out the activity, teleworking is not eligible.

#### **Administrative context :**

Work location : Marseille, Campus de Luminy

Type of contract: 24-month public-sector project contract with CISAM+ and Aix-Marseille University. The recruitment will be effective after validation by the DRH of a statement of public services of the selected candidate (among other parameters).

Results targets and monitoring indicators have been established for the duration of the project. A quarterly follow-up with the various partners is planned.

Hiring date: no later than September 02, 2024

Working hours : Full time (100%)

Salary: between INM 395 (1608€ net) and INM 447 (1819€ net) euros depending on experience (AMU salary scale)

Desired level of education: Level 6

Desired experience: 2 years' experience would be a plus, but not essential.

BAP: Life, earth and environmental sciences (A)

Job type: Scientific experimentation and instrumentation engineer

**For further information on the position, you will find a detailed job description on the AFMB laboratory website:**

[AFMB – Architecture et Fonction des Macromolécules Biologiques \(univ-mrs.fr\)](https://www.univ-mrs.fr/afmb)

**To apply, please send your CV + covering letter to : [cecilia.eydoux@univ-amu.fr](mailto:cecilia.eydoux@univ-amu.fr)**

**Deadline: May 13, 2024**