

## ENGINEER IN MICROBIOLOGY – BIOLOGICAL EXPERIMENTATION AND INSTRUMENTATION

### GENERAL INFORMATION

- **Contract type:** Fixed-term contract (24 months)
- **Expected start date:** October 1st, 2026
- **Salary:** €2,109 to €2,266 gross per month, depending on experience
- **Location:** Faculty of Pharmacy, Timone Campus, 27 boulevard Jean Moulin, 13005 Marseille, France

### MISSION CONTEXT

Bac-Screen is part of the certified technological platforms of Aix-Marseille University (<https://plateformes-aix-marseille.univ-amu.fr/bac-screen>). Specializing in high-content screening on bacteria, it contributes to the discovery of new antibacterial agents. The platform develops innovative phenotypic approaches for chemical library screening, functional characterization, and optimization of bioactive molecules.

Located on the Timone campus, Bac-Screen is affiliated with the Membranes and Therapeutic Targets (MCT) laboratory (<https://mct-aixmarseille.fr/>), an interdisciplinary unit at the interface of microbiology and chemistry, dedicated to the study of antibiotic resistance, particularly in Gram-negative bacteria.

As part of its development, Bac-Screen is strengthening its activities by developing, in collaboration with MCT, integrated approaches combining microbiology and the analysis of intracellular accumulation of compounds using mass spectrometry. These approaches aim to generate key data for the optimization of new antibacterial molecules, in a context of major public health challenges.

### POSITION

In close collaboration with the Bac-Screen and MCT teams, the research engineer will contribute to the development of the platform's analytical capabilities by implementing new methodological approaches combining high-content screening and intracellular quantification of small molecules using high-resolution mass spectrometry (Orbitrap-type instruments).

Main responsibilities include:

- Performing antibacterial screening on bacteria under planktonic and biofilm conditions
- Developing, optimizing, and applying detection and quantification methods using high-resolution mass spectrometry (Orbitrap-type)
- Designing and improving protocols for studying intracellular accumulation of compounds
- Analyzing, processing, and interpreting experimental data in connection with scientific projects
- Contributing to the writing of reports, technical documents, and scientific summaries
- Supporting platform users in the implementation of their projects
- Participating in equipment management, maintenance, and monitoring
- Ensuring compliance with health and safety regulations (BSL-2 laboratory) and contributing to quality processes

## CANDIDATE PROFILE

### Education and Experience

- Master's degree (or equivalent) in microbiology, biochemistry, or a related field
- Proven experience in experimental microbiology (required)
- Experience in mass spectrometry (ideally Orbitrap) would be highly appreciated
- Dual expertise in microbiology and instrumental analysis would be a strong asset

### Technical Skills

- Proficiency in standard microbiology techniques (bacterial culture, biofilms)
- Experience with analytical instrumentation (plate readers, mass spectrometry, etc.)
- Skills in data analysis and processing
- Proficiency in office software and bibliography tools

### Personal Skills

- Autonomy, rigor, and strong organizational skills
- Ability to work in a team and in an interdisciplinary environment
- Good interpersonal skills and ability to interact with platform users

## WORKING ENVIRONMENT

- MCT Laboratory, Faculty of Pharmacy, Timone Campus
- Work in a Biosafety Level 2 (BSL-2) laboratory
- Handling of Class 2 pathogenic bacteria

This position offers the opportunity to work in an interdisciplinary environment at the interface of microbiology and chemistry, within collaborative projects addressing major public health challenges related to antimicrobial resistance.

## APPLICATION

Applications will be reviewed until **June 12th, 2026**. Please submit the following documents:

- A CV
- A cover letter

Two letters of recommendation would be appreciated.

Please send your application to:

- [veronique.sinou@univ-amu.fr](mailto:veronique.sinou@univ-amu.fr)
- [julia.vergalli@univ-amu.fr](mailto:julia.vergalli@univ-amu.fr)