

## Bioinformatics Engineer (F/M) (Fixed-term contract)

The **Immunomonitoring Platform** is recruiting a **bioinformatics engineer** for an ambitious research project on **immune biomarkers with high clinical impact**, predictive of response to immunotherapies and immuno-induced toxicity.


### **Responsibilities**

- Develop and implement **single-cell analysis tools** adapted to the platform's projects
- Analyze data (**scRNA-seq , mass cytometry, and Olink**) from clinical cohorts
- Participate in **scientific valorization** and **skills transfer**

### **Profile**

- Master's degree in bioinformatics/statistics
- Experience with **high-dimensional single-cell analysis** (pretreatment, quality control, integration, dimensionality reduction, clustering, annotation, etc.)
- Strong foundation in **applied statistics** (linear/GLM models, multiple testing and correction, validation)
- Proficiency in **R/Python** (Seurat, Scanpy, or equivalent)
- Experience with **reproducible documentation** (Quarto, R Markdown, Jupyter)
- Enjoy **teamwork** and collaboration
- Background in **immunology** is a plus

 Immunomonitoring Platform – Paoli Calmettes Institute – Marseille Cancer Research Center

 Start date: April 2026 – Fixed-term contract of 10 to 15 months

To apply, please send your resume to:

**anne-sophie.chretien@inserm.fr** and **aude.le-roy@inserm.fr**

## **JOB DETAILS**

**Category:** Engineer (F/M)

**Position:** Research Engineer or Study Engineer

**Service/Component:** Immunomonitoring Platform

**Job location:** Immunomonitoring Platform, Marseille Cancer Research Center, Paoli Calmettes Institute, 27 boulevard Leï Roure, 13009 Marseille, France

**BAP :** BAP A

**Job type:** A1A41 (Biological engineer in data analysis) or A2A41 (Biological engineer in data processing)

**Job hours:** 100%

**Type of recruitment:** Fixed-term contract with Aix-Marseille University, 10 to 15 months

**Recruitment date:** April 2026

## **WORK ENVIRONMENT AND CONTEXT:**

The Cancer Immunomonitoring Platform, located on the campus of the Paoli- Calmettes Institute is part of the Marseille Cancer Research Center and is affiliated with the Paoli-Calmettes Institute (IPC), Inserm, CNRS, and Aix-Marseille University. The platform is certified with IBISA label since 2008 and certified ISO 9001 (2015) and NF X50-900 (2016). It is open to the academic and industrial scientific community for collaborations and/or project services related to oncology and immunology (learn more:

<https://crcm-marseille.fr/nos-plateformes-technologiques/immunomonitoring/>).

The Marseille Cancer Research Center (CRCM) is a large Joint Research Unit (UMR) bringing together 450 people across 23 research teams, 14 scientific platforms, and several shared services. Coming from diverse disciplines, CRCM researchers work collaboratively to contribute to advances in cancer research. The CRCM benefits from the support of its major partners: Inserm, CNRS, Aix-Marseille University, and the Paoli-Calmettes Institute (learn more: <https://crcm-marseille.fr>).

Aix-Marseille University (AMU) is a multidisciplinary institution structured around five main disciplinary sectors (Arts, Humanities, Languages and Social Sciences; Law and Political Science; Economics and Management; Health; Science and Technology; and a multidisciplinary studies). AMU educates 80,000 students across 18 faculties, schools, and institutes, spread across four departments (04, 05, 13, and 84) and 10 cities (learn more at [www.univ-amu.fr](http://www.univ-amu.fr)).

## **PROJECT CONTRACT**

**1. Description of the project expected within the framework of the contract:**  
immuno-induced toxicity in non-small cell lung cancer.

**2. Description of expected results at the end of the project contract**  
Biomarkers identification.  
Development of applied tools adapted for data analysis (mass cytometry, scRNAseq, Olink).

### **3. Method for evaluating objective achievement at the end of the project contract**

Presentation of work (methods, tools, scientific thinking and results) in a team meeting.

Participation in scientific valorization (publication, communication, etc.) with project managers.

## **MAIN MISSIONS AND ACTIVITIES**

### **1. Hierarchical positioning**

The recruited person will be supervised by the project manager and work under the direction of the project leader.

### **2. Missions**

The candidate's mission will be to develop data analysis tools adapted to the search for biomarkers and immune signatures that predict the response to immune checkpoints and immuno-induced toxicity.

The candidate will work on data from mass cytometry, scRNAseq and Olink from IPC clinical cohorts, and will participate in the reporting of results and the scientific valorization of the results.

### **3. Main activities:**

- Development and implementation of tools for the analysis of high-dimensional single-cell data adapted to the needs of the platform (scRNAseq , mass cytometry , and Olink ).
- Data analysis
- Transfer of knowledge and skills to other team members
- Updated documentation for developed methods and tools

## **REQUIRED SKILLS:**

### **1. Professional and/or technical skills:**

- Cell analysis : preprocessing, quality control, integration, dimensionality reduction, clustering, annotation. Ideally, include trajectory inference/pseudotime
- Knowledge of applied statistics: linear/GLM models, multiple testing and correction, validation (CV/ bootstrapping )
- Proficiency in Python and R for single-cell programming : Scanpy / AnnData and Seurat (or equivalents)
- Reproducible documentation: Quarto/R Markdown / Jupyter ; ability to deliver traceable and re-runnable reports

### **2. "Transferable" skills:**

Desired knowledge of immunology, specifically the tumor microenvironment and immune populations.

Enjoy working in a team and interacting with experimenters.

Be organized and enthusiastic.

Ability to work in a team

Autonomy

### **3. Work environment and context**

The candidate will work on the immunomonitoring platform under the supervision of Professor Anne-Sophie Chrétien and Dr. Aude Le Roy, and in close collaboration with the experimental engineers.

#### **4. Diploma required**

Master's degree (bioinformatics , computer science, statistics).

To apply, please send your resume to:

**[anne-sophie.chretien@inserm.fr](mailto:anne-sophie.chretien@inserm.fr) and [aude.le-roy@inserm.fr](mailto:aude.le-roy@inserm.fr)**