

Engineer position (IE) for FluidFM/Live-Seq project (F/M) (F/H)

HIRING DATE 18/01/2027 **LOCATION** 75001 PARIS, ÎLE-DE-FRANCE 75001

SCHOOL Institut Curie

WORKING ENVIRONMENT AND CONTEXT

Notre établissement fait partie de l'Université PSL. Située au cœur de Paris, celle-ci fait dialoguer tous les domaines du savoir, de l'innovation et de la création. Classée parmi les 50 premières universités mondiales, elle forme au plus près de la recherche des chercheurs, artistes, ingénieurs, entrepreneurs ou dirigeants conscients de leur responsabilité sociale, individuelle et collective.

HOSTING STRUCTURE

The Curie Institute Research Center

The Institut Curie is a major player in the research and fight against cancer. It consists of a hospital and a Research Center of more than 1000 employees with a strong international representativeness.

The objective of the Curie Institute Research Center is to develop basic research and to use the knowledge produced to improve the diagnosis, prognosis, and therapeutics of cancers as part of the continuum between basic research and innovation serving the patient.

TEACHING MISSION

Platform

The Institut Curie Single Cell Initiative is a strategic program bringing together several core facilities to advance next-generation single-cell and spatial omics approaches. Its mission is to foster technological innovation and enable cutting-edge research in fundamental, translational, and clinical oncology.

The initiative encompasses a broad range of approaches, including transcriptomics, epigenomics, multi-omics analysis, and spatial biology. It supports projects from methodological development through to data generation and analysis.

As part of this mission, the Single Cell Initiative continuously develops and evaluates emerging technologies with high scientific potential. Since 2023, it has established the Live-Seq technology at Institut Curie, which enables the extraction of a small fraction of the cytoplasm from a living cell without compromising cell viability (Chen et al., 2022). The RNA content of these cellular biopsies can subsequently be sequenced, enabling the dynamic study of cellular states and their evolution over time. This unique approach makes it possible to directly link a cell's transcriptome to its subsequent behavior.

Position

Live-Seq is based on FluidFM (Fluidic Force Microscopy), a technology that combines atomic force microscopy for precise manipulation and force measurements with microfluidics for the controlled aspiration of picoliter volumes.

The Single Cell Initiative is seeking a highly motivated research engineer with strong expertise in atomic force microscopy and/or microfluidics to further develop and expand this technology at Institut Curie.

The successful candidate will be responsible for developing and optimizing FluidFM protocols for Live-Seq applications, as well as training and supporting internal and external users in the implementation of their own Live-Seq projects.

The candidate will also explore the broader capabilities of FluidFM for single-cell manipulation, including applications such as cell injection, micromanipulation, and related approaches.

This project is a collaboration between the Single Cell Initiative and the Physics of Cells and Cancer Laboratory (UMR 168). Within the Single Cell Initiative, the successful candidate will interact closely with the engineers of the Custom Single Cell Omics (CSCO) platform, who provide expertise in biomolecular single-cell workflows involving low-input samples. The UMR 168 lab contributes specialized technical expertise in FluidFM technology.

RESEARCH MISSION

SKILLS

Experience level / degrees required

- Master's degree (MSc, Engineering Degree, or equivalent) in Physics, Biophysics, Engineering, or a related field.
- Previous experience in a research laboratory (approximately 2 years) would be an asset.

Candidate profile

- Hands-on experience with Atomic Force Microscopy (AFM) and/or microfluidics.
- Experience in optical microscopy and image analysis would be advantageous.
- Prior experience in molecular biology is not required. However, a strong willingness to interact closely with the engineers of the Custom Single Cell Omics (CSCO) platform and to bridge FluidFM-related challenges with molecular biology applications will be essential.
- Good command of English, both written and spoken.
- Proficiency with standard software tools, including the Microsoft Office suite (Excel, Word, etc.) and laboratory software such as GraphPad, Serial Cloner, or equivalent applications.
- Excellent communication and teamwork skills.
- Integrity, rigor, and strong attention to detail are essential qualities, together with a genuine interest in the development and implementation of emerging technologies.

All our opportunities are open to people with disabilities

Contract information

Type of contrat : Fixed Term Contract

Start date : early 2027

Duration : 18 months

Working time : full time

Salary: from de 29240€ à 31735€ /year according to current salary scales

Advantage : Collective catering, reimbursement of transportation fees up to 70%, supplementary health insurance

Localization: Paris 5e arr.

Contact

Please send your CV (max 2 pages), cover letter and 2 references

Publication date : 07/10/2026

Deadline for application: Once filled

Bibliography

Chen W, Guillaume-Gentil O, Rainer PY, Gäbelein CG, Saelens W, Gardeux V, Klaeger A, Dainese R, Zachara M, Zambelli T, Vorholt JA, Deplancke B (2022) Live-seq enables temporal transcriptomic recording of single cells. Nature 608:733–740. <https://doi.org/10.1038/s41586-022-05046-9>

Faithful to the legacy of its founder, the Institut Curie is deeply committed to promoting equal opportunities, diversity, and inclusion. Convinced that diversity of backgrounds and experiences contributes to collective performance, we strive to provide everyone with a respectful and equitable working environment and encourage all candidates to apply for our job opportunities.

NON DISCRIMINATION, OUVERTURE ET TRANSPARENCE

Notre établissement, comme l'ensemble de l'Université PSL, s'engage à soutenir et promouvoir l'égalité, la diversité et l'inclusion au sein de ses communautés. Nous encourageons les candidatures issues de profils variés, que nous veillerons à sélectionner via un processus de recrutement ouvert et transparent.

CONTACT

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OTHER INFORMATION

Recherche principal : **Sciences biologiques** Recherche secondaire : **Biologie**

Wage : **De 29240.0 à 31735.0 € (Euros) par an**

Durée du contrat 18 mois

Experience years

1 à 4 années d'expérience (R2) an

Reference

etkrjgsbe

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