POSTDOCTORAL RESEARCHER IN PROTEIN BIOCHEMISTRY AND CELL SIGNALING

Contract: Fixed-term postdoctoral contract (Inserm)
Duration: 36 months
Expected start date: First half of 2027
Location: Rennes, Brittany, France

Host Institutions and Research Environment

- **Inserm Research Units:** UMR_S 1236 and UMR_S 1242
- **Websites:** MOBIDIC | OSS
- **Research environment:** BIOSIT

Scientific Supervisors

Thierry Fest — Expert in plasma cell biology, B cell immunology
thierry.fest@univ-rennes.fr
Eric Chevet — Expert in endoplasmic reticulum biology, ERN1 signaling & cancer biology
eric.chevet@inserm.fr

Project Context and Research Environment

The successful candidate will join **PIMPERK** (funded by ANR), an interdisciplinary research project investigating the phosphorylation-dependent regulation of the eIF2α kinase PERK by PIM kinases and its functional consequences for protein secretion, cellular stress responses, and cell differentiation.

The project brings together two complementary areas of expertise: the biology of plasma cells and their exceptional capacity for protein synthesis and secretion, and the molecular mechanisms governing endoplasmic reticulum signaling and stress responses in cancer. By combining these perspectives, PIMPERK aims to uncover previously uncharacterized mechanisms linking kinase signaling, endoplasmic reticulum function, and cellular differentiation.

The candidate will work within a stimulating, collaborative research environment at Inserm research units UMR_S 1236 & UMR_S 1242 in Rennes, France. The laboratories benefit from access to state-of-the-art technological platforms, including advanced light and electron microscopy, flow cytometry, proteomics-related technologies, and animal facilities through the local research infrastructure.

Mission and Core Responsibilities

The postdoctoral researcher will play a central role in the experimental implementation of PIMPERK, with a particular focus on elucidating the molecular mechanisms regulating PERK activity and its interactions with PIM kinases.
The main responsibilities will include:

- Designing, optimizing, and performing experiments to investigate protein–protein interactions, kinase-dependent signaling and protein phosphorylation.
- Characterizing the functional consequences of PERK regulation in cellular models, including effects on signaling pathways, cell physiology and differentiation.
- Applying and developing protein biochemistry and cell biology approaches to dissect molecular mechanisms.
- Analyzing, interpreting, and documenting experimental data to generate robust, reproducible and high-quality scientific results.
- Contributing to scientific publications, project reports, and presentations at national and international conferences.
- Participating in collaborative activities across the two research teams and co-supervising Master's students.
- Contributing to laboratory activities and complying with relevant safety and research-integrity standards.

Required Profile and Skills

Education

- PhD in biochemistry, cell biology, molecular biology or a closely related discipline.
- Candidates with 3–4 years of postdoctoral experience are particularly encouraged to apply.

Scientific Expertise and Technical Skills

Essential qualifications:

- Strong expertise in protein biochemistry and cellular signaling, ideally involving stress-response pathways or kinase-dependent regulation.
- Hands-on experience with protein–protein interaction approaches and their analysis.
- Solid knowledge of protein phosphorylation, kinase signaling, and the molecular characterization of protein function.
- Practical experience in mammalian cell culture and cell-based functional assays.
- Demonstrated ability to independently design and lead research projects, interpret complex experimental data, and drive scientific findings towards publication.

Desirable qualifications:

- Experience in phosphoproteomics, proteomics or mass spectrometry-based approaches.
- Familiarity with endoplasmic reticulum biology, cellular stress responses or protein secretion.
- Experience with immunoprecipitation, co-immunoprecipitation or other biochemical approaches to characterize protein interactions.

Personal Qualities:

- Scientific curiosity, creativity and a strong motivation to investigate fundamental biological mechanisms.
- Excellent organizational skills, scientific rigor and the ability to take initiative.
- Strong interpersonal and communication skills, with a willingness to work in a collaborative, multidisciplinary environment.
- Professional proficiency in written and spoken English. Knowledge of French is an advantage but is not required.

Working Conditions and Remuneration

- *Contract*: 36-month fixed-term postdoctoral appointment with Inserm.
- *Salary*: Gross monthly salary according to the Inserm salary scale and the candidate's professional experience.
- *Benefits:* Partial reimbursement of public transportation costs, subsidized catering, access to French social security benefits and paid annual leave.
- *Location*: Rennes, Brittany, France.

Career Development Opportunities

This position offers an excellent opportunity to develop scientific independence, strengthen a competitive research profile and prepare for future career opportunities in academic research. In particular, the experience gained through the PIMPERK project may support the candidate's preparation for competitive applications to permanent research positions at Inserm, including positions as an Inserm Research Scientist (Chargé de recherche).

Application Procedure

Interested candidates should submit a single PDF application to both scientific supervisors:

- thierry.fest@univ-rennes.fr
- eric.chevet@inserm.fr

The application should include:

1. A detailed CV, including publications and relevant technical expertise.
2. A motivation letter describing research interests, relevant experience and suitability for the project.
3. Contact details for two to three academic referees.

Application deadline: End of March 2027.