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Inserm
La science pour la santé
From science to health

JOB OFFER

FRANCE 2030

Postdoctoral researcher - RNA-Therapeutic *in vivo* Efficiency

Founded in 1964, Inserm is a public scientific and technological institute dedicated to biomedical research and human health. It is involved in the entire range of activities from laboratory research to the patient care. Inserm brings together 15,000 researchers, engineers, technicians and administrative staff, all with one shared objective: improve health by advancing knowledge of living organisms and diseases and developing innovative treatments.

A new project, ReNAissance led by Bruno Pitard, has been selected by an international jury as a high-risk health research program with the potential to generate strategic conceptual and technological breakthroughs in the coming decades. The goal of ReNAissance is to advance medical research by developing a breakthrough therapeutic approach for treating infectious diseases through *in vivo* mRNA expression encoding therapeutic antibodies.

The Pitard laboratory, in the Immunology and New Concepts in Immunotherapy department of Inserm and CNRS (Nantes University, France) **is seeking an innovative and highly motivated postdoctoral researcher to design mRNA molecules encoding various antibodies and antibody formats to support the discovery of the next generation of *in vivo* antibody therapies and improve efficacy in clinically relevant animal models.**

KEY RESPONSABILITIES

- **Design and conduct *in vivo* experiments** in multiple species via collaborative partnerships to evaluate novel mRNA designs and supramolecular formulations
- **Select and design mRNA-encoded antibodies** to support high *in vivo* therapeutic antibody secretion
- **Lead multistep experimental designs** including planning and execution to assess safety and mRNA expression after *in vivo* injection
- **Perform cell based** neutralizing antibody assay, innate/adaptive immune profiling and pharmacodynamics assays using technologies such as ELISA, MSD
- **Investigate structural and biochemical modifications** that enhance mRNA expression while reducing immune processing of mRNA.
- **Prepare figures and authors manuscripts** for submission to high-impact journals

BASIC QUALIFICATIONS

- **Ph.D in Cell Biology, Immunology, nucleic acids-based vaccines or therapy or related field with 2-4 years of experience, demonstrated by a strong track record of peer-reviewed publications and project achievements**
- Certification in animal experimentation-Project designer
- Previous experience with small animal models relevant to RNA delivery
- Experience with single and multiplex assays including MSD platform

PREFERRED QUALIFICATIONS

- Ability to work independently, collaborate across disciplines and lead interdisciplinary activities to guide the selection of new mRNA formulations with unprecedented *in vivo* biological activities and deliver project milestones
- Background in infectious diseases with experience handling laboratory pathogens at containment level 3 is an advantage

APPLICATION PROCESS

Candidates should submit a motivation letter, a Curriculum Vitae (including publication list) and contact details of three professional references (including the PhD advisor) to bruno.pitard@univ-nantes.fr

The position is based in Nantes, France, near the Atlantic Ocean.
Learn more: https://www.levoyageanantes.fr/
The successful candidate will work at the Health Research Institute 2 (IRS2) within the New Concepts in Immunotherapy (INCIT) department: https://incit.fr/

Start date: June 1, 2025
Contract type: Fixed-term (18 months, renewable)