

JOB POSITION

Research Engineer in Microbiology and/or Microbial Physiology (M/F)

The French National Research Institute for Agriculture, Food, and the Environment (INRAE) is a public research establishment. It is a community of 12,000 people with more than 200 research units and 42 experimental units located throughout France. The institute is among the world leaders in agricultural and food sciences, in plant and animal sciences, and is 11th in the world in ecology and environment. INRAE's main goal is to be a key player in the transitions necessary to address major global challenges. In the face of the increase in population, climate change, scarcity of resources and decline in biodiversity, the institute develops solutions for multiperformance agriculture, high quality food and sustainable management of resources and ecosystems.

WORKING ENVIRONMENT AND ACTIVITIES

■ You will be welcomed in the You will join the Institute of Genetics, Environment and Plant Protection (IGEPP) within the team Ecology and Genetics of Plant–Microbiota–Pests Interactions (PMB), located at the INRAE Bretagne-Normandie Research Centre in Le Rheu (Rennes Metropolitan Area).

The team specializes in microbial ecology and studies plant–microbiota and insect–microbiota interactions. You will be recruited within the framework of the EXPLORAE TARGET project (“Towards the cultivation and genomic engineering of non-cultivated pathogenic bacteria”). TARGET develops a strongly transdisciplinary research strategy, integrating experimental microbiology, systems-level metabolic network modelling, and multi-omics approaches to overcome the long-standing challenge of phytoplasma cultivation. WP3 plays a pivotal role in this integration by translating model-based predictions into experimentally testable protocols and feeding experimental results back into model refinement in an iterative optimization loop.

This position is intended for a Scientific Research Engineer eager to work at the interface between experimental and computational biology, within a collaborative environment that actively promotes methodological cross-fertilization and interdisciplinary co-construction.

■ You will be in charge of:

- Implementing and optimizing experimental microbiology approaches to cultivate and study fastidious Mollicutes and phytoplasmas.
- Defining, testing, and optimizing culture conditions (media and nutrients, temperature, oxygen pressure, etc.) using high-throughput phenotyping tools and gas control systems.
- Developing and applying bacterial growth monitoring methods, including approaches targeting specific metabolic or physiological activities.
- Translating predictions from metabolic network modelling into experimental protocols in order to iteratively refine defined or quasi-defined media formulations, in close collaboration with the modelling teams involved in the project.
- Producing and testing culture media based on plant, insect, or microbial extracts.
- Contributing to the scientific dissemination of results, including the preparation of publications and conference presentations.
- Ensuring the capitalization, traceability, and sustainability of protocols, methods, and datasets developed within WP3 of the project.
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■ Special conditions of activity: Work in a regulated-access microbiology laboratory.

Regular professional travel to the Mollicutes team of the BFP unit (Fruit Biology and Pathology) at the INRAE research centre in Villenave-d’Ornon (Bordeaux), partner and coordinating unit of the project.

TRAINING AND SKILLS REQUIRED

- Recommended training: Engineering degree or PhD in microbiology, systems biology, bioengineering, or a related discipline.
- Knowledge required: Experimental microbiology. Bacterial physiology and biochemistry. Interest in complex experimental systems and miniaturized approaches.
- Appreciated experience: Experience in an interdisciplinary research environment. Experience or strong interest in high-throughput approaches and complex experimental designs.
Experience or interest in statistics applied to microbiology.
- Skills sought: Ability to work in a collaborative and interdisciplinary environment.
Scientific rigor, methodological autonomy, and strong organizational skills.
Interest in collective scientific production and methodological support to research projects.

INRAE'S LIFE QUALITY

By joining our teams, you benefit from (depending on the type of contract):

- until 30 days of annual leave + 15 days "Reduction of Working Time" (for a full time);
- [parenting support](#): CESU childcare, leisure services;
- skills development systems: [training](#), [career advise](#);
- [social support](#): advice and listening, social assistance and loans;
- [holiday and leisure services](#): holiday vouchers, accommodation at preferential rates;
- [sports and cultural activities](#);
- collective catering.

↘ Reception modalities

- Unit: UMR IGEPP
- Postal code + city: 35650 Le Rheu, France
- Type of contract: Fixed-term contract (renewable once)
- Duration of the contract: 16 months + 24 months
- Starting date: April 1st, 2026
- Remuneration: €4,800 gross/month (approx. €2,600 net/month)

↘ How to apply

Send a motivation letter and a CV to : Christophe Mougel and Nathan Vannier

- By e-mail: christophe.mougel@inrae.fr and nathan.vannier@inrae.fr

✘ Deadline for applications: March 2nd, 2026