🔬 Excellence Chair – Researcher Recruitment

Inserm Research Unit 1311 DYNAMICURE
Topic: Biostatistics and Mathematical Modeling of Biological Systems

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Unit Description

Founded in January 2022, the DYNAMICURE Inserm 1311 Research Unit (Microbial Dynamics in Urinary and Respiratory Infections) is a dual-site mixed research unit (Inserm / Universities of Caen and Rouen) directed by Prof. JC Plantier. It brings together faculty researchers and hospital-university staff from both CHUs and Universities, including microbiologists (bacteriology and virology), clinicians (infectious disease specialists, paediatricians, and general practitioners), methodologists, and epidemiologists.
The unit conducts innovative projects addressing two major public health priorities: urinary and respiratory tract infections 🌐 https://dynamicure.normandie-univ.fr.

Objective of the Recruitment

We are recruiting a researcher with expertise in data science, biostatistics, applied statistics and/or bioinformatics. The candidate will develop an ambitious personal research project within the unit's urinary tract infection axis that focuses i) on the pathophysiology of urinary infections, particularly on the dynamics of uropathogens in their reservoirs (enteric, vaginal, and urinary microbiomes), and ii) on their persistence/resistance mechanisms in recurrent urinary tract infections and on treatment optimization.
The goal is to bring a big-data dimension to this research, leveraging both clinical and para-clinical population data from health data warehouses and omics data generated by the team.
Specifically, the researcher will:

- Apply machine learning and deep learning methods to multi-scale data to identify diagnostic and predictive biomarkers and stratify patient subgroups within a precision medicine framework.
- Develop advanced statistical inference methods for analyzing complex and sparse big data such as omics datasets.
- Design and implement mechanistic and stochastic mathematical models to simulate biological processes (host-microbiome interactions, infections, microbial population dynamics).

Candidates should have experience in leading such projects from conception to execution.

Keywords: big data, health data warehouses, data science, machine learning, biostatistics, modeling

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Candidate Profile

The researcher will be recruited by the University of Caen Normandy under the Excellence Chair program funded by the Normandy Region, aimed at attracting highly qualified and experienced researchers.
The candidate must have experience leading a research team, preferably abroad, and in obtaining and managing collaborative and ambitious research projects (e.g., ANR, ERC). The candidate will have experience supervising PhD students or postdocs.

Recruitment Process

The Excellence Chair is funded by the Normandy Region for 3 years, covering the researcher's salary (100% research time) and funding for the research project.
At the end of this period, the researcher will be recruited—subject to evaluation—as Full Professor at the University of Caen Normandy.

Timeline:
- Application deadline: September 30, 2025
  → Send CV and cover letter by email to:
    - olivier.join-lambert@inserm.fr (Caen site co-director)
    - jc.plantier@chu-rouen.fr (unit director)
- Candidate interviews and selection: October 2025
- Scientific project development with unit researchers: Fall 2025
- Submission to the Region/ANR for evaluation: January 2026
- Recruitment: September 2026

If you are interested in joining the unit outside of this Excellence Chair opportunity, other recruitment options are possible. Please send your CV and cover letter to the addresses above.