

Application procedure

Step 1: Registration on the **ODYSSEE** platform

Step 2: Submission of your complete application exclusively on the ODYSSEE platform

You must first create an account using the dedicated button, then submit your application.

Deadline for submission on the platform:

22/07/2025 - 16h (Paris Time)

Compliance with these two steps is compulsory and will determine whether your application is deemed administratively eligible.

Requirements to apply:

- Hold a PhD or equivalent degree
- Significant international post-doctoral experience

Application package:

The list of compulsory documents to be provided is defined by the "arreté" of February 6, 2023, available on the *GALAXIE* portal.

- A completed CPJ application form, available in Galaxie or on the ENS Paris-Saclay website in Word format, to be uploaded (in PDF format) in the "Establishment document" tab in ODYSSEE;
- A legible copy of both sides of a photo ID;
- Proof of possession of a doctorate, as provided for in article L. 612-7 of the French Education Code, or of a diploma, title or qualification whose equivalence is recognized in accordance with the procedure set out in the procedure laid down in 1° of article 5 of the aforementioned decree of December 17, 2021;
- An analytical presentation of the candidate's works, articles, achievements and activities, mentioning those that the candidate intends to present at the audition;
- A copy of each of the works, articles and achievements mentioned in the analytical presentation and which the candidate intends to present at the audition, without exceeding six documents.
- The diploma's defence ("viva") report, or an attestation from the awarding establishment certifying that no examination report was drawn up;

Administrative documents (your diploma or its equivalent) as well as the examination report, if written in whole or in part in a foreign language, must be accompanied by a **translation into French**, the conformity of which the candidate certifies on his or her honour. **Failing this, the application will be declared inadmissible.**

Selection and recruitment procedures:

- -A selection committee will carry out the evaluation. Its composition will be available on the ODYSSEE platform.
- -Only candidates pre-selected by the selection committee will be invited to the audition.

Important: Any application incomplete by the closing date will be declared ineligible.





Lead institution/organization: Ecole Normale Supérieure Paris-Saclay

Head of institution's name: CARRASCO Nathalie

Location concerned: Université Paris-Saclay - ENS Paris-Saclay

Entity/Teaching and Research Departement: LBPA-DER Biology et Centre Borelli-DER

Mathematics

Profile title: Biology and Mathematics Junior Professor

CNU section: 64,65,26

Project: Quantitative analysis and modeling of infections or cancer, combining experimental data at cellular and molecular levels, mathematical modeling, information processing and machine learning, software development.

Keywords: Infectious diseases/cancers; Complex signal modeling; Mathematical processing of biological data; Molecular and cellular biology; Interdisciplinarity

Duration: 3 to 5-year Junior Professor contract, with a view to tenure in a permanent position, after evaluation, as a full Professor.

Host laboratories:

- LBPA Laboratoire de Biologie et Pharmacologie Appliquée (UMR 8113 CNRS-ENS Paris-Saclay)
- Centre Borelli (UMR 9010 CNRS et ENS Paris-Saclay)

Intro

The École Normale Supérieure Paris-Saclay (ENS Paris-Saclay) is committed to recruiting teacher-researchers whose projects are fully in line with the establishment's missions, which are to train students (Normaliens and Normaliennes) for careers in higher education and research, and to develop scientific research at the highest level.

The academic staff recruited by ENS Paris-Saclay must be at the top of their field and have significant teaching and research experience. Thematic and geographic mobility, particularly abroad, is a highly valued asset. A broad knowledge of their discipline is expected to ensure that Normaliens and Normaliennes acquire a genuine scientific culture at every stage of their training.

The quality of the ENS's environment is characterized in particular by the excellence of its students, the quality of its research laboratories and the resources made available for teaching. In addition, its organization into eleven teaching and research departments (DER) facilitates the integration of academic staff into teaching and research teams. This interweaving of teaching and research is combined with a proximity between disciplines that encourages multi-disciplinary teaching and research.

As part of its interdisciplinary development strategy, ENS Paris-Saclay is inviting applications for a *Chaire de professeur Junior* (CPJ) at the interface between biology and mathematics. This prestigious position offers an early to mid-career researcher the opportunity to lead interdisciplinary projects in an environment of the highest international level. A competitive start-up package including an installation grant and support for a PhD student will be offered.



Description of reporting entities/departments

Two laboratories are involved in this recruitment, which is intended to strengthen the interdisciplinary aspects at their interface:

- (1) LBPA, a laboratory focusing on the molecular and cellular levels of biology, with microbiology (pathogenic bacteria, viruses) and oncology as its main fields of application. LBPA relies on interdisciplinary approaches combining experimental biology, biophysics, mathematical modeling and image analysis.
- (2) The Centre Borelli, an interdisciplinary research center that develops interfaces between mathematics, computer science and life sciences. The intersection of "physical" models and data-centric approaches, as well as the fine quantification of complex signals/images/video and, more generally, representation learning using machine learning techniques are among the priority research directions.

Teaching profile

The recruited person will primarily teach at the Master's level in mathematics and biology, in courses focused on quantitative analysis and the modeling of data or biological mechanisms, for example in infectious diseases, public health, or structural biology. He/ she will also teach at the third-year undergraduate level (L3), for instance by proposing a short course on mathematical tools useful for modeling complex biological phenomena (differential equations, probability, statistics, numerical analysis). He/ she may also supervise an introductory research internship on these topics, ideally carried out in pairs (between mathematics and biology students). In the medium term, courses on artificial intelligence techniques for biology—with a broad perspective on their applications (imaging, proteins, etc.)—as well as on open science and reproducible research will be highly relevant in the context of the project.

Research profile

The person recruited will propose a project structured around an interdisciplinary approach that addresses biological issues concerning the quantitative analysis of infections or cancer, combining experimental data at cellular and molecular levels, mathematical modeling, information processing and machine learning. The type of data analyzed can be very varied: massive sequencing, microscopy images (electron microscopy, superresolution microscopy or video microscopy), proteomic data, etc. The work carried out as part of the project should also pave the way for the development of software tools enabling biologists more widely to interact with the data they produce.

Contacts

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