

Postdoctoral position in bacteriology and molecular microbiology – Vector-borne diseases [Plague and *Yersinia pestis* team, Institut Pasteur de Lille, France](#)

The position

As part of an interdisciplinary project funded by the Priority Research Program and Equipment on Emerging Infectious Diseases (PEPR-MIE), we are seeking a motivated postdoctoral researcher to investigate the molecular mechanisms used by *Yersinia pestis* to infect fleas.

The project will combine bacterial genetics, molecular microbiology, flea infection models and omics-based approaches to identify bacterial determinants required for colonisation, survival and transmission in the flea vector.

This position is embedded within a collaborative project spanning the natural, medical and human sciences, with the broader aim of understanding the mechanisms that have shaped the spread, persistence and re-emergence of plague, one of the most historically devastating infectious diseases.

The position is expected to start in September 2026 and is funded for up to two years. Applications will be reviewed on a rolling basis until the position is filled.

The successful candidate will receive mentorship to prepare applications for permanent research positions in French national research institutions, including Inserm and CNRS.

Candidate profile

Required qualifications

- PhD in biology, with experience in bacteriology, molecular biology and omics approaches.
- Strong interest in host-vector-pathogen interactions and evolutionary microbiology.
- Ability to work independently within a collaborative interdisciplinary environment.
- Excellent communication skills and fluency in English.

Desirable qualifications

- Expertise in arthropod-pathogen interactions or vector infection models, and/or previous experience with regulated containment environments, would be a significant advantage, although specific training will be provided.
- Basic knowledge of French would be helpful but is not required.

The lab and working environment

Our team currently comprises 15 members, including researchers, engineers, technicians, postdoctoral fellows and PhD students, with complementary expertise in bacteriology, vector biology, infection models and omics approaches. Our team has developed unique expertise in Europe in studying the complete flea-mammal-flea transmission cycle of *Yersinia pestis*. We benefit from dedicated experimental models, state-of-the-art molecular biology tools and access to omics platforms

Further information about the team and its research activities is available on the team webpage (<https://www.ciil.fr/teams/sebbane-plague-yersinia-pestis>)

The postdoctoral researcher will work in close interaction with the project coordinator and collaborators involved in microbiology, vector biology, omics and evolutionary approaches.

As part of the Center of Infection and Immunity of Lille, we are located on the campus of the Institut Pasteur de Lille, which hosts 8 units and 34 teams. This dynamic scientific environment provides access to complementary expertise across a broad range of disciplines.

The successful candidate will have opportunities to:

- present their work at national and international conferences;
- contribute to high-quality publications in the field of host-vector-pathogen interactions;
- receive support for relocation and settling in Lille, particularly for international candidates.

Lille is a vibrant university city ideally located at the crossroads of Europe, with direct connections to Paris in 1 hour, Brussels in 30 minutes and London in less than 2 hours.

The employer

The Institut Pasteur de Lille is a member of the international Pasteur Network and is internationally recognised for its excellence in infectious disease research, including its historical contribution to the development of the BCG vaccine.

Contact and application

Interested candidates should submit their application to florent.sebbane@ibl.cnrs.fr, including:

- a CV;
- a cover letter describing their research interests and fit with the position;
- contact details for three references.

Please indicate **“Application – Postdoctoral position in bacteriology and molecular microbiology”** in the subject line.

Applications will be reviewed on a rolling basis. Only shortlisted candidates will be contacted.