

# Postdoctoral position

## Molecular mechanisms of bacterial and eukaryotic immunity

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International Center for Infectiology Research (CIRI) – Lyon

Like other organisms, bacteria are exposed to viral infection : bacterial viruses, called **phages**, are the most abundant biological entities on our planet. Facing viral threat, bacteria have evolved multiple **defense mechanisms** that form natural barriers to phage infection. Some of these defense systems were recently shown to be the evolutionary ancestors of components of the eukaryotic immune system, raising exciting perspectives for the entire field of innate immunity. **At CIRI, the Microbial Molecular Genomics lab led by François Rousset explores the molecular basis of bacterial defenses against phages and their evolution across the tree of life.** Through our interdisciplinarity, we aim to foster the transfer of skills between team members and to promote a fruitful learning environment for each member to thrive.

A postdoctoral scientist position is available to decipher new molecular mechanisms in bacterial immunity and their dissemination in the eukaryotic lineage. The candidate will develop innovative projects implementing diverse experimental and bioinformatic techniques (e.g. bacteriology, phage biology, protein purification, biochemical assays, phylogenetics, NGS...). The candidate will be encouraged to train and mentor students and to develop their own ideas towards becoming an independent scientist.

### Your profile

Candidates should hold a Master's degree and a PhD degree in microbiology, biochemistry, bioinformatics or biotechnology and show a strong publication record (relative to their experience level). Deep scientific curiosity and team spirit are essential, with excellent oral and written communication skills in English. Applications from non-French scientists or any recognized minority are encouraged.

### Conditions

- Start date is flexible from November 2024 to February 2025.
- The position is funded for 2 years in the form of a renewable 1-year contract. The candidate will be encouraged to apply to independent funding.
- Salary : from 2927 € gross monthly, following Inserm guidelines according to experience.

### Contact

Candidates should send a CV and a cover letter including a brief description of research interests and contact details for 2 referees to [francois.rousset@inserm.fr](mailto:francois.rousset@inserm.fr).

### Relevant publications

- Rousset, F., et al., (2023). A conserved family of immune effectors cleaves cellular ATP upon viral infection. *Cell*.
- Rousset, F. (2023). Innate immunity: the bacterial connection. *Trends in Immunology*.
- Rousset, F. & Sorek, R. (2023). The evolutionary success of regulated cell death in bacterial immunity. *Current Opinion in Microbiology*.



### About CIRI

CIRI is a leading research institute jointly affiliated to Inserm, CNRS, ENS Lyon and Claude Bernard University. CIRI gathers 400 scientists with a diverse panel of expertise ranging from molecular microbiology to human immunology. The Microbial Molecular Genomics lab is located in the new Rosalind Franklin building on the Gerland Campus, which offers extensive biological resources and equipment in a green environment.

