

## Post-doctoral researcher position in microbial disease ecology

We are recruiting a highly motivated and talented post-doctoral researcher to join our team (EPIA unit, INRAE-VetAgro Sup, [epia.clermont.hub.inrae.fr](http://epia.clermont.hub.inrae.fr)) and contribute to exciting research projects in the fields of microbial disease ecology, genomics, phylogenetics, and epidemiology. You will be part of Q-Net-Assess (Improved molecular surveillance and assessment of host adaptation and virulence of *Coxiella burnetii* in Europe), an ICRAD European research program on the ecology of Q fever, a zoonotic disease caused by *Coxiella burnetii* infections. Your main focus will be on the circulation of *C. burnetii* in livestock on a European scale. You will develop interdisciplinary researches to gain more insight into the host-specialization and the spatial spread of *C. burnetii* lineages among farm animals and also humans.

Your main task will be to carry out a genome-based phylogenetic study of *C. burnetii* across Europe, in collaboration with European partners. This part of the project will aim to analyze approximately 200 bacterial genomes from different host species and various countries. You will have to implement advanced genomic and phylogenetic analyses to investigate the genetic diversity and cross-species transmission patterns of *C. burnetii* in the European context. This task requires expertise and skills in genomics, molecular evolution and bioinformatics. You will also be involved in various analyses designed to supplement the information provided by the genome-based phylogenetic analysis. In particular, this involves studying the evolution of quantitative virulence traits obtained for a selected subset of strains in order to identify the environmental factors that determine the distribution of *C. burnetii* lineages on a regional scale. This task also requires experience of spatial and statistical analyses, as well as knowledge in epidemiology.

### Expected Skills and Qualities:

- PhD in disease ecology, evolution or epidemiology
- Experience in analyzing microbial genomic data, conducting phylogenetic studies and implementing spatial data analyses
- Programming skills in languages such as Python and R
- Strong statistical and analytical skills for the interpretation of complex data
- Ability to work in autonomy as well as in collaboration within an international research team
- Excellent communication skills in English, both written and verbal

### Job Offer Details:

- Position: Post-doctoral researcher
- Duration: 2 years
- Gross salary: between 2,600€ and 3,300€ depending on experience
- Location: Theix close to Clermont-Ferrand, France
- Starting Date: as soon as possible (before April 2024)

Interested candidates are invited to submit the following application materials via email to [elsa.jourdain@inrae.fr](mailto:elsa.jourdain@inrae.fr), [xavier.bailly@inrae.fr](mailto:xavier.bailly@inrae.fr) and [julien.theze@inrae.fr](mailto:julien.theze@inrae.fr).

- Cover letter detailing your research interests, relevant experience, and motivation for the position.
- Curriculum Vitae with a list of publications and contact information of two professional references

Applications expected before October 20, 2023

Please feel free to contact us for any inquiries regarding the position or the application process. We look forward to receiving applications from enthusiastic and qualified candidates who are keen on contributing to this exciting research program.