

**Postdoctoral Fellowship
Opportunity – MSCA PF 2026**
**Investigate and engineer microbial interactions
within the rumen ecosystem**

Université Clermont Auvergne is looking for applications from candidates interested in submitting a project to the MSCA PF 2025 call for proposals (DL : 09/09/26).

*Candidates will also have the unique opportunity to participate in the first MSCA-PF Master Class (**apply before 13/03/2026, see below**)*

The French National Research Institute for Agriculture, Food, and the Environment (INRAE) is a public research establishment. It is a community of 12,000 people with 272 research, experimental research, and support units located in 18 regional centres throughout France. Internationally, INRAE is among the top research organisations in the agricultural and food sciences, plant and animal sciences, as well as in ecology and environmental science. It is the world's leading research organisation specialising in agriculture, food and the environment. INRAE's goal is to be a key player in the transitions necessary to address major global challenges. Faced with a growing world population, climate change, resource scarcity, and declining biodiversity, the Institute has a major role to play in building solutions and supporting the necessary acceleration of agricultural, food and environmental transitions.

WORKING ENVIRONMENT AND ACTIVITIES

■ The successful candidate will work in a highly interdisciplinary research environment, involving close collaboration between two INRAE research units, one INRIA unit in France.

The Herbivores joint research unit (UMR Herbivores) conducts research for a multi-performing herbivore breeding, mobilizing the levers of agroecology. This involves research to better understand animal functions and the impacts of breeding practices on the animal and the environment. The UMR Herbivores has 120 permanent staff, including 74 researchers and engineers, and welcomes about 60 non-permanent staff each year (including about 20 PhD students and post-doctoral positions). It is organized into 5 research teams, a support team and a management team. You will work in the Dinamic (Digestion, Nutrition, Food, Metabolism, Microbes) team, whose research includes characterising the ruminal microbial ecosystem in order to understand and manipulate methane emissions from ruminants.

MoSAR is a mixed research unit (UMR) between INRAE and AgroParisTech, located in the campus Agro Paris Saclay (Palaiseau, France). The unit has a long-standing expertise in ruminant nutritional physiology, as well as in systemic modelling of animal physiology and biology. The team has 13 scientists conducting research to understand, characterize and predict the relationships between livestock and their feeding environment to develop tools that increase the feed efficiency whilst optimising performance, adaptive capacity and wellbeing.

Pleiade is an Inria-INRAE research team located in Bordeaux (Inria Centre at the University of Bordeaux), with a strong expertise in computational microbial ecology.

The team hosts more than 15 scientists working on modelling the compositional and functional diversity of microbial communities, both at small (controlled consortia) and large (environmental microbiomes) scale.

Pleiade is particularly interested in understanding spatio-temporal dynamics and metabolic interactions in these communities. <https://team.inria.fr/pleiade/>

This postdoctoral project lies at the interface between environmental impact mitigation and sustainable livestock production. It focuses on understanding and engineering the role of ruminant microbiota in regulating greenhouse gas emissions, particularly within the rumen ecosystem.

The project integrates **microbiology, microbial ecology, and synthetic microbiology** to investigate microbial interactions and functional dynamics. **Mathematical modelling and genome-scale metabolic modelling** will be used to predict community-level metabolic functions and to design innovative strategies aimed at reducing the environmental footprint of livestock systems.

- Special conditions of activity:

TRAINING AND SKILLS REQUIRED

- A PhD in microbiology, microbial ecology, life sciences, or a related discipline
- Experience in microbiome analysis and/or synthetic microbiology
- Strong interest or experience in mathematical modelling and/or genome-scale metabolic modelling (highly desirable)
- Ability to work across disciplines and integrate experimental and computational approaches
- Excellent communication skills and strong teamwork abilities
- High level of autonomy, adaptability, and motivation for collaborative research in an international context
- Candidates must comply with MSCA Postdoctoral Fellowship mobility and eligibility rules.
- Skills sought: Curiosity, initiative, autonomy, teamwork

ELIGIBILITY

Applicants must:

- be in possession of a doctoral degree or have successfully defended their doctoral thesis at the date of the call deadline (9th September 2026)
- have a maximum of 8-year experience in research from the date of award of the doctoral degree at the date of the call deadline
- not have resided or carried out their main activity (work, studies, etc.) in France for European Fellowship or in the country hosting the outgoing phase for Global Fellowship for more than 12 months in the 3 years at the date of the call deadline
- be nationals or long-term residents of the EU Member State or Associated Country (for GF only, there is no nationality restriction for EF).

INRAE'S LIFE QUALITY

By joining our teams, you benefit from (depending on the type of contract):

- until 30 days of annual leave + 15 days "Reduction of Working Time" (for a full time);
- [parenting support](#): CESU childcare, leisure services;
- skills development systems: [training](#), [career advise](#);
- [social support](#): advice and listening, social assistance and loans;
- [holiday and leisure services](#): holiday vouchers, accommodation at preferential rates;
- [sports and cultural activities](#);
- a dedicated and free public transport service;
- collective catering.

↘ Reception modalities

- Unit: **UMR Herbivores**
- Postal code + city: **63122 St Genès Champanelle**
- Type of contract: There are 2 types of postdoctoral fellowships:
European Postdoctoral Fellowships (EF). Fellowship of 12 to 24 months taking place in an EU Member State or a HE Associated Country.

↘ How to apply

For the second time, a Master Class will be organised in Clermont-Ferrand during the week of the 8th of June 2026. The aim is to host candidates for the MSCA PF grant for 3 days so that they can visit the town, the lab and work together with their supervisors on the project proposal, with the mentoring of european support services from UCA, CNRS, INSERM and INRAE.

Global postdoctoral fellowships (GF). Fellowship of 24 to 36 months in two phases:

- o An outgoing phase of 12 to 24 months taking place in a Third Country
- o A return phase of 12 months taking place in an EU Member State or HE Associated Country

Once the candidate and their supervisor have agreed, expressions of interest must be completed and sent to cap-europe@uca.fr before the 13th of March 2026. More information on CAP Europe website [here](#).

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