

JOB POSITION

PhD position: Monotony vs. diversity of experiences; the role of both positive and negative emotions on the welfare of the animals

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

■ You will work in the Herbivores joint research unit (UMR Herbivores). This unit 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 team CARAIBE (Comportement animal, Adaptation, Robustesse et Approche Intégrée du Bien-Être / *Animal Behaviour, Adaptation, Robustness and Integrated Approach of Welfare*) that focuses on the understanding of psychological needs, perceptions (emotion and cognition), and behavioural responses of animals to their environment. It notably pays attention to constrained environments related to grass-based systems valuing grazing (climatic, feeding, social, predation constraints, etc.).

■ Context and scientific questions:

Animal welfare is still an increasing subject of concern, emerging in science since 1965 but with a rise during the last three decades and in the society in the last decade. Although the early objectives were to limit suffering and stress, today we aim to promote positive welfare. The EU project COST LIFT “Lifting farm animal lives – laying the foundations for positive animal welfare” (2022-2026) illustrates this new orientation of research on animal welfare, working on positive emotions and their assessment. Emotions are short-lasting, whereas the state of welfare is considered a more general background affective condition, resulting from a succession of positive and negative emotions. However, to understand fundamentally the role of emotions in animal welfare, more knowledge is needed on how positive and negative emotions collaborate to create a more general affective background condition. For example, in humans, positive and negative emotions may co-occur during various situations and negative emotions may have a positive function, for instance by favouring adaptive skills. Many recent studies explore environmental improvement/enrichment to stimulate positive emotions. However, if moderate negative emotions do not occur, the resulting lack of emotional variation and contrasts may lead to boredom as observed in monotonous environments, and the improved welfare aimed for may not, or only partly, be achieved.

In this thesis, we propose to investigate how variability over time, accumulating positive and negative emotions, may be beneficial in the long term in terms of animal welfare, and thus may constitute an enrichment, especially in comparison with a monotonous life.

Two hypotheses based on possible inter-related mechanisms of the 'positive' impact on welfare (long term) of negative emotions (transient) will be tested:

- Hypothesis 1: An animal enjoys positive events more when it also experiences moderately negative events
- Hypothesis 2: A negative event, that the animal has managed to overcome, produces positive experience because of the animal's success in overcoming it.

■ You will be in charge of:

- Comprehensive literature review
- Experiment design and implementation
- Data analysis
- Valorization (scientific publications and participation to congresses)

■ Special conditions of activity:

This PhD research will be conducted in close collaboration with Dr. Laura Webb, Wageningen University, Netherlands. The candidate must be willing to travel to Wageningen, Netherlands in order to work with Dr. Laura Webb at the University of Wageningen.

■ Selection process:

Clermont Auvergne University, Clermont-Ferrand, France and its Clermont Auvergne Project Graduate School (CAP GS) programme offer a PhD opportunity that will be conducted in partnership between Clermont Auvergne University and a foreign research Institution. The associated Changing Environments Graduate Track presents three PhD proposals published on EURAXESS, **of which one only will be funded**. The selection process will take all applications into consideration. The best fitting candidate will be invited to an audition between end of June and mid-July. The laureate will do her/his research on the selected topic at the PhD supervisor's research laboratory at Clermont Auvergne University in Clermont-Ferrand.

Applicants who have earned their higher educational qualifications outside Europe or in Greece must attach to their application a certificate of equivalence of the diploma (Master degree). The certificate can be obtained following the procedure indicated here: <https://phoenix.ciep.fr/inscriptions/>

Application deadline: Friday 10 May, 5 pm Paris time, 2024. Applications arriving after the application deadline will not be taken into consideration.

TRAINING AND SKILLS REQUIRED

- Recommended training: Master degree or equivalent. The successful candidate is expected to have a Master in Agricultural or Biological Sciences and has received training in Animal Behaviour/Ethology.
- Knowledge required: Background in ethology and data analysis, basic knowledge on farming systems.
- Appreciated experience: Training in a research laboratory.
- Skills sought: Autonomy, Oral and written communication in English, Enthusiasm and team player attitude. Fluency in French is not required, but appreciated.

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;
- [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: **Doctoral position**
- Duration of the contract: **36 months**
- Starting date: **04/11/2024**
- Remuneration: **2 044€ gross salary**

↘ How to apply

Send a motivation letter and a CV by e-mail to:

Claudia TERLOUW - claudia.terlouw@inrae.fr

AND

Raphaëlle BOTREAU - raphaelle.botreau@inrae.fr

✗ Deadline for applications: **10/05/2024**