Post-doctoral Researcher

From October/November 1st, 2025 for a period of 30 months (80%) with the possibility of extension

Job Description

We are seeking a motivated computational scientist to work with team members on a project assessing individual behaviour patterns of laying hens generated from high throughput location tracking. Collected data is then related to individual records of health status, pathology, neurogenesis, spatio-temporal associations, and genetic profiles, among others. Key to the effort will be a data platform built in parallel by separate team members to facilitate exploration of the mentioned interconnected datasets. Ultimately, the goal is to provide a comprehensive representation of how animals develop, behave, and respond to stress. The scientist will conduct the basic analysis while providing feedback to the data platform team to enhance its utility and ease of use. The scientist will also closely liaise with members of an ongoing EU-COST Action focused on creating a European network devoted to livestock phenomics (https://eu-li-phe.eu/about/) of which this project will serve as a national hub.

Specific tasks will include a combination of communicating with project partners both in the development of research hypotheses and the data platform, data exploration and analysis, as well as dissemination to the wider scientific community regarding use of the platform. We are looking for someone who can apply traditional statistical methods with more novel techniques including Bayesian processes and artificial intelligence. The work is part of a larger effort using novel behavioural assessments to improve genetic selection for cage-free housing systems. There are many opportunities for collaboration and developing one's own research profile and interests. The role will also include assisting team members in other group projects. The salary is based on a standard Advanced Postdoctoral classification.

Project Background

The Center for Proper Housing of Poultry and Rabbits (ZTHZ, see here) has been investigating the occurrence of highly individualized behaviours (see here and here) and their relationship to various aspects of Animal Welfare including: bone fracture (see here), coordinated movement (see here and here), and the epigenome (see here). The project is an extension of our continuing effort to explore the source of the observed variation across and within individuals as well as the implications for animal welfare, health, and sustainable production.

Our research group

The ZTHZ is a collaboration between the University of Bern and the Swiss Federal Food Safety and Veterinary Office. We conduct studies on a wide range of topics within our focus species of poultry and rabbits ranging from fundamental research of cognitive development to more applied projects such as appropriate feeder space, causes and means to reduce bone fracture, and optimizing group housing conditions. Our research group has access to unique facilities (see here) in which we conduct highly detailed scientific investigations within a commercially relevant barn. Scientific findings can then readily be applied to actual, on-farm conditions. The group currently has two PhD students that are supported by five scientists, four technicians, and a full-time dedicated animal care staff.

Qualifications

Required:

- University degree and doctorate in biology, bioinformatics, or related disciplines
- Bioinformatics experience or associated analysis of complex and large datasets, including programming in R, Python, Bash, etc.
- Methodological knowledge and research experience in the field of behavioural science
- Willingness to perform research on poultry
- Capacity to work independently and within a team
- English language fluency
- Ability to work in our office in Zollikofen, Switzerland

Desirable

- Experience of developing research software using workflow languages on cloud-native or containerised frameworks.
- Experience of managing database architecture (DBMS) hosting phenotypic datasets
- Background and/or understanding of poultry including health, welfare, and behavior
- Ability to cooperate with scientists from different disciplines
- Successful publication activity in relevant topics
- German language fluency

To apply

We are a modern, internationally oriented research institute where the compatibility of work and family is one of our central motivations and hybrid (working from the home and office) is possible. The group is committed to increasing the representation of women, especially in management positions. Women are therefore strongly encouraged to apply. To apply, please send the following documents as a **single, combined PDF** file to Ms. Masha Marincek (masha.marincek@ unibe.ch):

- A one-page letter of motivation describing your background and interest for the position
- A two-page academic CV
- Three references who can be contacted whom are familiar with your work experience

For further information please contact Dr. Michael Toscano (michael.toscano@vetsuisse.unibe.ch)

We will begin reviewing applications on July 1st, 2025, and then conduct interviews shortly thereafter with the final selection by August 1st, 2025.