



4 PhD positions and 1 PostDoc (m/f/d)

We are searching for motivated and enthusiastic PhD students and a PostDoc to work on

Inositol phosphates and *myo*-inositol in the domestic fowl: Exploring the interface of genetics, physiology, microbiome, and nutrition

at the Institute of Animal Science, University Hohenheim (UHOH), Germany and at the Leibniz-Institute of Farm Animal Biology (FBN), Dummerstorf, Germany

Your tasks and our offers: The PhD projects will be part of the framework of the second funding period of our **Research Unit 'P-Fowl'** (<https://p-fowl.uni-hohenheim.de/en/projects2nd>) supported by the Deutsche Forschungsgemeinschaft (DFG). This provides an excellent and interdisciplinary research environment and allows interactions with various experts in animal science. The overall objective of the Research Unit is to explore and understand the genetic, epigenetic, and non-genetic variations in the formation of inositol phosphate derivatives and *myo*-inositol by endogenous phytases and their relevance for phosphorus utilisation, microbiome, and animal physiology in laying hens.

Three main animal experiments with laying hens are the core of the project framed by seven subprojects. PhD students and the postdoc are requested to work closely together with other colleagues and take joint responsibilities. Subprojects offering PhD and Postdoc positions are working on:

Project 1 (FBN): Characterization of mineral utilisation by functional genomics two contrasting high-yielding laying hen strains -> **wanted: PhD student** engaged to work in the field of animal genetics using RNA-Seq and microfluidic qRT-PCR expression analyses of various tissues to elucidate post-absorptive mechanisms of P homeostasis

Project 2 (UHOH): *Myo*-inositol and its role in metabolic regulation of two contrasting high-yielding laying hen strains -> **wanted: PhD student** engaged to work in the field of animal physiology using enzymatic measurements and metabolomic analysis.

Project 3 (UHOH): Microbial and host *myo*-inositol usage in the gastrointestinal tract of laying hens -> **wanted: PhD student** engaged to work in the field of microbiology using stable isotope probing techniques in anaerobic enrichments from the chicken gut, mass spectrometric analyses of proteins and metabolites.

Project 4 (UHOH): Microbial and host *myo*-inositol usage in the gastrointestinal tract of laying hens -> **wanted: PostDoc** engaged to handle and analyse metagenomic data while supporting other students.

Project 5 (UHOH): Effects of low dietary P and *myo*-inositol on the immune system in two contrasting high-yielding laying hen strains -> **wanted: PhD student** engaged to work in the field of immunology using flow cytometry, gene expression analyses and cell culture techniques to assess immune profiles in laying hens.

Your profile: PhD candidates should have a MSc in animal science, agricultural biology, microbiology, life sciences or related disciplines. PostDoc should hold a PhD in microbiology, bioinformatics or related disciplines. Women are explicitly encouraged to apply. Physically disabled persons will be favoured if they are equally qualified.

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Salary will be according to the appropriate civil service level EG 13 TV-L. PhD students: 65%, PostDoc 100%. Funding is available for 3 years, beginning in spring 2022. Please send your complete application documents including a CV, motivation letter, copy of certificates and contact details of referee persons in **one pdf file** to funmicanimal@uni-hohenheim.de with the project no. of interest in the subject line. Application deadline: 30.01.2022.