Doctoral (PhD student) in developmental epigenetics in chickens

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Uppsala University is a comprehensive research-intensive university with a strong international standing. Our ultimate goal is to conduct education and research of the highest quality and relevance to make a long-term difference in society. Our most important assets are all the individuals whose curiosity and dedication make Uppsala University one of Sweden’s most exciting workplaces. Uppsala University has over 45,000 students, more than 7,000 employees and a turnover of around SEK 7 billion.

The Department of Organismal Biology announces a doctoral position in developmental epigenetics in chickens for the program for environmental toxicology. The researcher will be part of the 'Environmental Epigenetics' group led by Dr. Carlos Guerrero-Bosagna in the environmental toxicology program.

At the Department of Organismal Biology, we conduct teaching and research on evolution, development and function at the organism level. We also study the deepest branches of the tree of life with the help of bioinformatics and experimental molecular techniques. Research on how chemicals of anthropogenic origin interact with cell functions and give rise to long-term health effects on humans and animals is also being carried out. For more information see www.iob.uu.se.

Duties/Project description: The PhD student will drive a research project in chickens in collaboration with the University of Bern in Switzerland. The project is part of a larger project funded by the Swiss National Science Foundation and an H2020 Research Innovation action. The project investigates epigenetic and transcriptomic changes occurring in multiple regions of the brain of chickens, and other organs related to stress response, during development. The work of this PhD student will include molecular (epigenetic and gene expression) and bioinformatic
analyses of DNA/RNA samples coming from these tissues, as well as establishing and maintaining primary cell cultures. The PhD student will be involved in the DNA/RNA extraction from tissues, application of our GBS-MeDIP method to assess DNA methylation changes in reduced genomes, coordination with our collaborators and third-party services (such as sequencing facilities), bioinformatic analyses of the data, data interpretation, and writing of scientific articles. The project will contribute to the understanding of molecular mechanisms of stress response in farmed chickens to improve their animal welfare in production settings.

Within the PhD studies, the PhD student is expected to develop a PhD thesis, write scientific articles, present results at scientific meetings and conferences, teach on relevant courses, and actively contribute to the Biology Graduate School.

Requirements: The candidate will have to meet the general entry requirements for doctoral/third-cycle/PhD education. Completed university education of 240 university points (högskolepoäng, hp) out of which 60 hp on advanced level corresponding to master. The candidate shall hold a degree in biology, biomedicine, physiology, biotechnology, veterinary or related fields.

We are looking for an ambitious and motivated candidate who has a deep interest in epigenetics in general, and in understanding epigenetic dynamics during development and responses to environmental factors.

We need a candidate with good knowledge of molecular laboratory work and bioinformatic tools. The candidate should be fluent in English, both in speaking and writing. Additionally, the candidate must have a good conceptual understanding of epigenetic processes. Candidates will be ranked according to the following relevant criteria: ability to perform molecular bench work with DNA/RNA, ability to perform bioinformatic analyses (particularly in genomic samples), conceptual knowledge of epigenetic mechanisms, ability to summarize results in a concise and meaningful manner, and motivation to undertake the project. Given the amount of data that is expected to be generated, we need a person with good organizing and planning skills. Additionally, the candidate should be willing and flexible to travel abroad for coordination meetings with our collaborators, and for presentation in scientific meetings.
**Additional qualifications:** It is advantageous having experience in laboratory work with epigenetic methods and bioinformatic genomic data analyses and processing. Experience and interest in animal welfare of production animals is a merit. Good presenting skills is also a merit, as it is experience in presenting and writing scientific articles.

In filling this position, the university aims to recruit the person who, in the combined evaluation of their documented qualifications, competences, skills and prior experiences, is judged most suitable to carry out and develop the work-in-hand and to contribute to a positive development of the research group, and the program.

**Position:** The PhD student position is a 4-year appointment, and the candidate will primarily devote this time to their own research studies. Other departmental work, such as teaching or administration, may be part of the position (maximum 20%) leading to a corresponding prolongation of the PhD period up to 5 years. Salary placement is in accordance with local guidelines at Uppsala University. The applicant must be eligible for PhD studies at Uppsala University.

Information about PhD training can be found on the web site of the Faculty of Science and Technology, [http://www.teknat.uu.se/Doktorand/](http://www.teknat.uu.se/Doktorand/).

**Application:** The application must be written in English. The initial application should include 1) a letter of intent of maximum two pages describing yourself, your professional qualifications, your research interests, and the reasons why you are applying for a PhD position within this project (feel free to add references if you feel the need), 2) your CV, 3) your Master’s thesis, 4) a copy of your degree qualifications (Bachelor, Master’s) and course grades, 5) copies of any authored peer-reviewed scientific publications, 6) copies of other (non peer-reviewed) written articles (e.g., relevant blog posts, popular science articles, etc.), 7) the names and contact information of at least two reference persons (with position, address, email address, and phone number). Extra documents might be required for advanced stages of the selection process.

Rules governing PhD students are set out in the Higher Education Ordinance chapter 5, §§ 1-7 and in [Uppsala University's rules and guidelines](http://www.teknat.uu.se/Doktorand/).
**Salary:** According to local agreement for PhD students.

**Starting date:** 01-08-2021 or as otherwise agreed.

**Type of employment:** Temporary position according to the Higher Education Ordinance chapter 5 § 7.

**Scope of employment:** 100 %

**For further information about the position please contact:** Carlos Guerrero Bosagna, carlos.guerrero.bosagna@ebc.uu.se

**Please submit your application by 21 May 2021, UFV-PA 2021/1538.**

Are you considering moving to Sweden to work at Uppsala University? [Find out more about what it’s like to work and live in Sweden.](#)

Please do not send offers of recruitment or advertising services.

**Submit your application through Uppsala University's recruitment system.**

Placement: Department of Organismal Biology

Type of employment: Full time, Temporary position longer than 6 months

Pay: Fixed salary

Number of positions: 1

Working hours: 100 %

Town: Uppsala

County: Uppsala län

Country: Sweden

Union representative: ST/TCO tco@fackorg.uu.se

Seko Universitetsklubben seko@uadm.uu.se

Saco-rådet saco@uadm.uu.se

Number of reference: UFV-PA 2021/1538

Last application date: 2021-05-21
Login and apply