



PhD student in biomedical science

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PhD student in Toxicology – new methods to detect hazardous pollutants in water

Department of Biomedical Sciences and Veterinary Public Health (BVF) at the Swedish University of Agricultural Sciences. BVF is part of the Faculty of Veterinary Medicine and Animal Sciences and is responsible for undergraduate training, research and post-graduate training in the areas of bacteriology, immunology, parasitology, pathology, pharmacology, toxicology, veterinary public health and virology.

Department of Biomedicine and Veterinary Public Health, Swedish University of Agricultural Sciences, is looking for a PhD student in the subject field biomedical sciences, with a special focus on molecular toxicology.

Both humans and the environment at large is constantly exposed to complex, and ever-changing, mixtures or both synthetic chemicals and naturally occurring compounds. Some of these compounds, or combinations of compounds, are hazardous to humans or the environment. There is an urgent societal need for new methods and strategies to detect such hazardous compounds or mixtures, aiming to protect humans and the environment from exposure.

The aim of this research project is to develop and use analytical methods, based on cultured cells, to detect hazardous compounds and mixtures in the environment, especially in water. Additionally, to investigate how such effect-based methods can be used in *early warning systems*, for example in drinking water utilities or wastewater treatment plants, for continuous monitoring and rapid detection of hazardous pollutants.

Tasks: Studies and research aiming towards a PhD degree in the field of molecular toxicology, with a special focus on the development of cell based *in vitro* assays for studies of toxicity. Additionally, application of the developed methods in the context of *early warning systems* for chemical hazards in water. It is also included in the tasks to participate in courses need for a PhD degree, laboratory work and supervision of master students.

The PhD student will work in the research group *Molecular Toxicology*. We are also working closely together with research groups in the fields of ecotoxicology and food toxicology.

More information about the research group can be found here: <https://www.slu.se/institutioner/biomedicin-veterinar-folkhalsvetenskap/forskning-bvf-ingangssida/toxikologi/molecular-toxicology/>

Qualifications: The applicant must meet the formal requirements to be admitted to PhD education at SLU. Adequate educational background could for example be a degree on master's level in the fields of molecular biology, biochemistry, toxicology, or pharmacology. Previous experience of molecular biology-methods and cell culturing is desirable, but not a requirement. It is further desirable if the candidate has an expressed interest in the development of new technologies, innovation and utilization of research findings.

Type of position: Four year, full time, employment as PhD student

Last day for application: September 20, 2022

Contact person

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