

## Post doc/Researcher - Development of mechanism-based bioassays for toxicological studies

Department of Biomedical Sciences and Veterinary Public Health, section of Pharmacology and Toxicology

Contamination of drinking water, food and the environment, both with single chemicals and with mixtures of chemicals, is an area of high concern. Due to an increased number and volume of chemicals used and emitted in the environment, it is a highly prioritized research area to develop novel testing strategies to assess the hazards of these chemicals. A new testing concept is focused on molecular events (e.g. ligand activating a receptor) which can lead to an adverse outcome in the organism. Our research aims to develop such mechanism-based bioassays which can be used both for mechanistic studies of individual chemicals and to perform toxicity screening of complex mixtures, such as in water samples. We collaborate with analytical chemists to develop an effect-driven program for detection of hazardous chemicals in the environment, drinking water and food.

The department of Biomedical Sciences and Veterinary Public Health is responsible for research, education at basic and advanced levels and environmental monitoring assessment within the disciplines pathology, pharmacology, toxicology, immunology, food safety, virology, bacteriology, parasitology and epizootology.

**Duties:** You will work in a food and environmental toxicology group. The work involves development of cell-based methods for studies of toxicological mechanisms, for example oxidative stress, endocrine activity and effects on nuclear receptors. Methods will be used for assessment of environmental samples and the results will be evaluated for toxicological relevance together with chemical data.

**Qualifications:** Skills are required in molecular biology techniques, cell culture, cloning, transfection, luciferase-based assays, assays for endocrine effects, metabolic activation of chemicals, toxicity testing. Experience in toxicological risk assessment is appreciated as well as previous postdoc experience. External collaboration skills and high level of ability in written and oral communication in English are required.

**Competence:** PhD degree in toxicology, molecular biology, biochemistry or similar disciplines. Documented knowledge and experience in cellular and molecular techniques, independent research and scientific publication in referee-reviewed scientific journals.

**Place of work:** Uppsala

**Form of employment:** Temporary employment for 2 years.

**Extent:** 100%

**Starting date:** By agreement

**Application:**

We welcome your application marked with **Ref no. SLU ua 280/2015**.

Please submit your application to the Registrar of SLU, P.O. Box 7070, SE-750 07 Uppsala, Sweden or [registrator@slu.se](mailto:registrator@slu.se) no later than **April 7, 2015**.

SLU is an equal opportunity employer.

*The Swedish University of Agricultural Sciences (SLU) develops the understanding and sustainable use and management of biological natural resources. The university ranks well internationally within its subject areas. SLU is a research-intensive university that also offers unique degree programmes in for example rural development and natural resource management, environmental economics, animal science and landscape architecture.*

*SLU has just over 3,000 employees, 5,000 students and a turnover of SEK 3 billion. The university has invested heavily in a modern, attractive environment on its campuses in Alnarp, Skara, Umeå and Uppsala.*

[www.slu.se](http://www.slu.se)

**Further information:**

Agneta Oskarsson  
Professor  
018-673533  
[agneta.oskarsson@slu.se](mailto:agneta.oskarsson@slu.se)

**Academic union representatives:**

Anneli Lundkvist, SACO  
+46 (0)18 67 27 12

Desiree Karlsson, SEKO  
+46 (0)18 67 10 57

Lotta Olsson, ST  
+46 (0)18 67 15 36

