



## PhD student in a project on the effect of chemicals in fertility

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### Department of Clinical Sciences

The Department of Clinical Sciences is responsible for undergraduate education, research and postgraduate education in the scientific fields of veterinary medicine, veterinary nursing and animal science. The Department's activities mainly concern our common Swedish domesticated animal species with a focus on Anaesthesiology, Diagnostic Imaging, Animal Care, Epidemiology, Laboratory Animal Science, Surgery, Clinical Chemistry, Medicine and Domestic Animal Reproduction.

Teaching and research within the cross-disciplinary subject in the field of reproductive toxicology focuses on how comparative veterinary reproductive biology can be used to understand how chemicals affect the fertility and thereby promoting both animal health and human health.

### Description:

This project is carried out in collaboration with the Department of Environmental Science at Stockholm University. The main component of the project involves identifying chemicals and their effects on embryo quality and female fertility using a so-called “effects-directed analysis” approach. This is done using an *in vitro* model, without the use of experimental animals, to study oocyte maturation and fertilization and subsequent early embryo development. In order to study the effects of chemical mixtures, follicular fluid collected from women will be extracted, fractionated and used for testing. Advanced mass spectrometry-based non-target screening techniques will be used to characterize and identify chemicals that affect the embryos. Following training, the student is expected to perform all *in vitro* testing and assist in the chemists and/ or perform the chemical analyses, along with 30 credits of coursework, in order to fulfil the requirements of a PhD. Teaching at the veterinary program may be included in the work.

### Qualifications:

We are looking for a person that is highly motivated to investigate the effects of chemicals on fertility. You should have a genuine interest in research and in learning to do research. Applicants should either a) hold a degree in Veterinary Medicine/Animal Science/Medicine/Pharmacy/Biology or a similar degree and have a very strong interest in environmental chemistry using mass spectrometry and cheminformatics, or b) hold a

degree in Analytical or Environmental Chemistry or a similar degree and have a very strong interest in reproductive biology and toxicology.

Skills in toxicology and *in vitro* embryo production (or similar experience of sterile laboratory work) is an asset. Experience in mass spectrometry-based trace analysis of organic molecules, in particular using non-target screening-based workflows would be an asset.

The applicant must be fluent in spoken and written English (required). We place great emphasis on personal qualities such as taking initiative and responsibility, and ability to plan your own work. It is important that you can take and execute instructions and have the ability to work in a team as well as independently. The selection will also be based on personal suitability for the learning and research tasks. A practical test on oocyte/embryo handling in the laboratory will also be included in the assessment of the applicants.

## Place of work:

Uppsala

## Forms for funding or employment:

Employment (4 years).

## Starting date:

2023-02-01 or according to agreement.

## Application:

We welcome your application no later than 2023-01-23, use the button below.

Your application should be written in English or Swedish and should include, in addition to your CV, maximum one A4 page where you describe why you would like to work with science in general and this project in particular, and a copy of an article or equivalent (e.g. master's thesis, working paper) showing previous research experience. Please provide names and contact information of two reference persons familiar with the applicant's qualifications

To qualify for third-cycle (Doctoral) courses and study programmes, you must have a second-cycle (Master's) qualification. Alternatively, you must have conducted a minimum of four years of full-time study, of which a minimum of one year at second-cycle level.

Applicants will be selected based on their written application and CV, degree project, copies of their degree certificate and transcript of records from previous first and second-cycle studies at a university or higher education institution, two personal references, knowledge of English, and a practical test on oocyte/embryo handling in the laboratory. More information about the English language requirements can be found here: [www.slu.se/en/education/programmes-courses/doctoral-studies/new-doctoral-students/english-language-requirements/](http://www.slu.se/en/education/programmes-courses/doctoral-studies/new-doctoral-students/english-language-requirements/)

Please note that applicants invited to interview must submit attested copies of their degree certificate, a transcript of records from previous first and second-cycle studies at a university or higher education institution. Applicants who are not Swedish citizens need to submit an attested copy of their passport's information page containing their photograph and personal details.

Read about the PhD education at SLU at [www.slu.se/en/education/programmes-courses/doctoral-studies/](http://www.slu.se/en/education/programmes-courses/doctoral-studies/)

Academic union representatives:

<https://internt.slu.se/en/my-employment/employee-associations/kontaktpersoner-vid-rekrytering/>

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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.

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

### Contact person

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