Department of Aquatic Sciences and Assessment in Uppsala

1 PhD student in the research education subject: Environmental Chemistry

Pharmaceuticals and antibiotic resistance genes in source separated waste fractions

Besides their valuable nutrient content, source separated waste fractions, such as human manure and urine, may contain high levels of pharmaceutical residues and antibiotic resistance genes (ARGs). Re-use of such fractions are already being implemented at pilot scale and in agricultural practice. However, there is a limited knowledge about environmental and human risks associated with application as well as on the treatment efficiency of pharmaceutical residues and ARGs during sanitation steps. The main objectives of the project is to assess risks associated with re-use of blackwater and urine, and more specifically (i) examine levels of pharmaceuticals and ARGs in source separated waste fractions, (ii) assess reduction of pharmaceuticals and ARGs using state-of-the-art treatment and post-treatment techniques, (iii) conduct field studies to study occurrence, transport and fate at fertilized (amended) sites.

The successful applicant would be a member of a research group led by Karin Wiberg and Lutz Ahrens (https://www.slu.se/en/cv/karin-wiberg/). The project is a collaboration with the Environmental Engineering group at the Department of Energy and Technology at SLU (Associated Professor Björn Vinnerås) and with scientists at the Catalan Institute for Water Research (ICRA) in Spain (Dr. Meritxell Gros).

Qualifications

Applicants shall hold a MSc in chemistry, environmental science, chemical engineering, or equivalent. Specialization towards environmental analytical chemistry and experience with mass spectrometry are valuable merits. Previous experience of field and analytical laboratory work is desirable. Emphasis is placed on personal characteristics such as interpersonal skills, analytical and problem-solving skills and the ability to work independently. Proficiency in English (both spoken and written) is required.

The application should include a i) CV, ii) a short description of experience indicating your suitability for the position, iii) copies of degree certificates from higher education, iv) contact information of at least two reference persons, and v) ideally a written reference letter from at least one referee.

The position is full-time and will be granted for a period of four years, starting as soon as possible.

Forms for funding or employment
Employment as PhD student

SLU is an Equal Opportunity Employer.

A person has basic eligibility for third cycle education if he or she has taken a second cycle qualification or has completed course requirements of at least 240 higher education credits, including at least 60 higher education credits at second cycle education. Upper secondary school grades equivalent to English B/English 6 are a basic requirement.

Selection among applicants meeting the requirements is made with reference to written application including curriculum vitae, copies of degrees and transcripts of academic records, one copy of the dissertation for masters or undergraduate degree, a list of at least two references familiar with the applicant's qualifications, certified knowledge of the English language and an interview.

Read about the PhD education at SLU at www.slu.se/en/phd

Use this APPLICATION FORM

Further information:
Docent Lutz Ahrens, lutz.ahrens@slu.se, +46(0)70-2972245

Applications, marked with **ref no 861/2017**, must have arrived at the Registrar of SLU, P.O. Box 7070, SE-750 07 Uppsala or registrator@slu.se no later than **2017-05-02**.