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UNIVERSITET

PhD student in Microbiology – Giardia's interaction with host cells

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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 54,000 students, more than 7,500 employees and a turnover of around SEK 8 billion.

The Department of Cell and Molecular Biology is organized into seven research programmes which all focus on different areas of cell and molecular biology: Computational Biology and Bioinformatics, Microbiology and Immunology, Molecular Biology, Molecular Biophysics, Molecular Evolution, Molecular Systems Biology and Structural Biology. The scientific basis of what we do lies in biology, but our research overlaps with other areas such as medicine, computer science, mathematics, chemistry, engineering sciences and physics. In total, we are over 200 staff and ~60 Ph.D. students. Please read more about the department's work at <https://icm.uu.se>.

The PhD position is placed in Staffan Svärd's research group at the Microbiology and Immunology program, please visit <https://www.icm.uu.se/mikrobiologi-immunologi/svard-labb/>.

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General description

Microbial communities (microbiomes) in the gut are essential parts of the human body, affecting the overall physiology at many different levels. Until now Bacteria

have been the main focus of studies of intestinal microbiomes but eukaryotic microbes are also members of the microbiomes, creating the eukaryome. Some enter transiently, causing acute infections and disease (parasitic infections, e.g. *Cryptosporidium* spp. and *Giardia*). Other members colonize the digestive tract more stably and have beneficial effects on health, most likely as immune- and microbiome modulators (e.g. *Blastocystis*).

This PhD project aims to gain a detailed understanding of how human intestinal parasites cause disease and manipulate the immune system. The main model organism in this project will be the pathogenic intestinal parasite *Giardia intestinalis*, which both causes disease and manipulates the immune system, but we will also use bacterial intestinal pathogens such as *Salmonella* for comparisons. Methods that will be used within the project include growth of human enteroids, *Giardia* parasites, CRISPR mutagenesis, large-scale sequencing of RNA, flow cytometry, and other molecular and microbiological methods.

Duties

The Ph.D. student shall primarily focus on postgraduate studies, but other duties related to teaching and administrative work may be involved, up to a maximum of 20 % of the time. Information about doctoral education, eligibility requirements and admission rules can be found at the faculty website, <http://www.teknat.uu.se/utbildning/utbildning-pa-forskarniva/>.

Requirements

The applicant must have a master's degree in microbiology, molecular biology, biotechnology, or within another subject which the employer considers to be equivalent. The applicant must have a good ability to work independently as well as in a group. A prerequisite is good written and oral knowledge of English, as the work takes place in an international environment. Strong written and oral communication skills are required. Assessment of personal suitability will be an important aspect in the selection.

Rules governing PhD students are set out in the Higher Education Ordinance chapter 5, §§ 1-7 and in [Uppsala University's rules and guidelines](#).

Application

Your application should be written in English and include:

- A personal letter where you describe yourself, your research interest, your experiences and why you are interested in the position (max. 2 pages).
- A CV containing your education and other qualifications and a copy of your diplomas and list of publications.
- Please provide contact information to reference persons and recommendation letters from prior research supervisors.

About the employment

The employment is a temporary position according to the Higher Education Ordinance chapter 5 § 7. Scope of employment 100 %. Starting date as agreed. Placement: Uppsala.

For further information about the position, please contact: Prof. Staffan Svärd, staffan.svard@icm.uu.se. For administrative questions contact Hr-generalist Sara Blom, tel. +46(0) 18471 4416, e-mail sara.blom@icm.uu.se

Please submit your application by 16 of January 2023, UFV-PA 2022/4342.

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 Cell and Molecular 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 sacco@uadm.uu.se

Number of reference: UFV-PA 2022/4342

Last application date: 2023-01-16

Apply for position