UPPSALA
UNIVERSITET

PhD student in bioinformatics-focused interventional sleep & chronobiology research

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 Medical Sciences is a large clinical institution with more than 250 employees and over 900 additional coworkers connected via the Uppsala University Hospital. The Department of Medical Sciences has a broad research profile with strong research groups in a number of different areas. The research carried out at the department is performed in close connection with the clinical activities at the Uppsala University Hospital, which includes both basic studies on the causes of a variety of illnesses and the development and evaluation of improved diagnostics and new treatment methods. More information about the Department of Medical Sciences can be found at www.medsci.uu.se

A four-year fully funded position as a PhD student is now available at the department. We are seeking highly motivated candidates, preferably with bioinformatics experience, who wish to study genomic and molecular aspects of sleep & circadian medicine (chronomedicine). The goal will be to study how sleep & circadian rhythms are modulated by key lifestyle factors such as exercise and diet.

The project will involve advanced interventional trials in sleep & circadian rhythms, in which we sample across the day and night for circadian (24-h) molecular analyses. The project will also entail unique opportunities for complementary preclinical studies,

with comprehensive data collection. You will be able to learn and deploy a range of genomic and molecular techniques, ranging from preparing samples for RNA-sequencing to integration of several datasets using advanced bioinformatics tools.

As a PhD student, you will conduct cutting-edge research in an environment that is highly collaborative, interactive and works closely with clinicians. The department interacts closely with healthcare providers from the nearby hospital, hosting all the prerequisites for bench to bedside research. This also comprises access to several unique cohorts for complementary epidemiological validation in the context of sleep and circadian medicine.

At the Department of Medical Sciences, we have access to facilities for several omics techniques, sequencing as well as preclinical research setups, including in vitro-based studies. We also host several dedicated sleep rooms for interventional sleep and circadian studies, and collaborate closely with groups with expertise in diabetes, nutrition, molecular diagnostics and circadian bioinformatics. For the latter, we have lab members with extensive training, and continue to work closely with the existing bioinformatics infrastructure.

Job duties

The main tasks of the PhD candidate will be to help carry out advanced clinical research trials where participants are monitored in the field and in-lab, and relevant health parameters and data are collected. The PhD candidate will furthermore immerse themself in the doctoral studies in the relevant subject area, and learn how to aggregate and analyze the collected data, which will comprise comprehensive bioinformatics analyses on genomics and related omics-type data. The student will be guided by experienced supervisors throughout the process, from planning to study implementation, data analysis, and subsequent manuscript writing.

The PhD program comprises four years of full-time studies.

You will be supervised by one main supervisor, and at least one co-supervisor.

Requirements

Eligibility for admission to graduate level education are those who have completed a degree at an advanced level, completed course requirements of at least 240 higher

education credits, of which at least 60 higher education credits at advanced level, or otherwise acquired essentially equivalent knowledge within or outside the country. The applicant must have basic university or college-level education in medicine, bioinformatics, biomedicine, or related subjects. The applicant must be able to work independently, but also be good at teamwork. Furthermore, the applicant should be highly motivated, careful and goal-oriented. Applicants must be able to express themselves well, both orally and in writing, in English. Emphasis will especially be placed on documented experience of experimental work, statistical and bioinformatics analyses, as well as previous publications.

Additional qualifications
Prior research experience, documented experience, or interest in sleep, circadian biology, metabolism, and bioinformatics are all desirable. Of relevance is also prior experience with clinical trials or clinical medicine, processing of large datasets, and knowledge in molecular biology and biostatistics. Knowing Swedish is desirable. Particular emphasis will be placed on individual suitability, in terms of who is deemed to have the best conditions to implement the planned project.

Application procedure
The application should be written in Swedish or English, and should contain a curriculum vitae, and any prior project thesis and scientific publications. The application should also contain a personal letter, with a brief description of yourself, your motivation, skills and suitability for the position, as well as the names, e-mail addresses and telephone numbers of two reference persons.

The application should also contain (as attachments) copies of relevant diplomas and course transcripts. Applications are assessed according to eligibility, previous experience and individual suitability.

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

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: Jonathan Cedernaes, +46 708 2297 48, Jonathan.cedernaes@medsci.uu.se

Please submit your application by April 20, 2023, UFV-PA 2023/1381.

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 Medical Sciences
Type of employment: Full time , Temporary position
Pay: fast
Number of positions: 1
Working hours: 100%
Town: Uppsala
County: Uppsala län
Country: Sweden
Union representative: Seko Universitetsklubben seko@uadm.uu.se
ST/TCO tco@fackorg.uu.se
Saco-rådet saco@uadm.uu.se
Number of reference: UFV-PA 2023/1381
Last application date: 2023-04-20

Apply for position