



UPPSALA
UNIVERSITET

PhD position in diabetes epidemiology

Published: 2022-06-23

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 Surgical Sciences (IKV) is part of the Disciplinary Domain of Medicine and Pharmacy. IKV has about 160 employees and 200 registered doctoral (third cycle) students, the majority of which are clinically active doctors and nurses. Research is conducted at the department, as well as teaching in the first, second and third cycles. Teaching is, among other areas, conducted within the education programmes for doctors, nurses and specialty nurses. Research is conducted in research groups organised according to surgical specialties and closely aligned subject areas, such as anaesthesia and intensive care and radiology. A great deal of research is conducted in cooperation between separate research groups within IKV and other departments at Uppsala University, as well as other universities in Sweden and the rest of the world. The EpiHub is a network for epidemiology research within the Disciplinary domain of Medicine and Pharmacy at Uppsala University and IKV.

IKV hereby announces a PhD position in diabetes epidemiology, at The Epihub. The project aims to combine epidemiology with artificial intelligence to examine socioeconomic position and longitudinal risk factors trajectories in relation to *complications* of type 2 diabetes.

Project description

Type 2 diabetes is an important public health challenge, which results in considerable

morbidity and premature mortality. Despite known socioeconomic inequalities in type 2 diabetes incidence and mortality, little is known about the relationship between socioeconomic position and *complications* of type 2 diabetes. Furthermore, how high-resolution, longitudinal trajectories of lifestyle and clinical risk factors are related to complications of type 2 diabetes is unclear, and if the addition of longitudinal risk factor trajectories can enhance prediction of complications of type 2 diabetes, or explain socioeconomic inequalities in complications of type 2 diabetes is unknown.

The aim of this project is to address these gaps in knowledge using high-quality, long-term data from the Swedish National Diabetes Register, in linkage with other national registers and cutting-edge methodologies in epidemiology and artificial intelligence, including group-based trajectory modelling, causal mediation analysis, and machine learning based risk prediction modelling.

The PhD student will be based at EpiHubben - a collaborative research environment within the Disciplinary domain of Medicine and Pharmacy at Uppsala University - which aims to facilitate the development and exchange of epidemiological knowledge, expertise and ideas. The student will also be part of a research school at the Uppsala Diabetes Center - <https://uu.se/forskning/udc/> - and will have a co-supervisor from the department of IT, who has expertise in machine learning.

Duties

The work tasks will be to:

- learn and apply new skills, knowledge and methodologies
- work with an interdisciplinary approach to a broad project [HS2] area
- plan ahead in a realistic manner and prioritise your own tasks
- work well as part of a team, as well as independently
- perform efficient and proficient data-management of large-scale register-based data, with strong attention to detail
- in collaboration with supervisors and other researchers involved with the project, draft and develop statistical analysis plans including cutting-edge methodologies in epidemiology and machine learning
- conduct statistical analyses in accordance with a statistical analysis plan, with support from supervisors and other researchers involved with the project
- place new results in the context of the existing knowledge base; and

- communicate clearly and professionally in oral and written English in different situations, for example, within interdisciplinary meetings and collaborations, when drafting and revising articles to be published in peer-reviewed journals, and when presenting new insights at (inter)national conferences.

Requirements

- Must hold, or expect to receive before the intended date of employment, a Masters degree or equivalent in Epidemiology, Statistics, Biostatistics, Bioinformatics, Computer Science, Medical Research, or a similar relevant subject.
- Highly motivated to learn and apply new skills, knowledge and methodologies in epidemiology, advanced biostatistical methods, programming, computational methods and machine learning.
- Excellent scientific writing ability and very strong oral and written communication skills in English.
- A collaborative nature that is essential to work well as part of a team as well as independently.
- Strong organisational skills and the ability to prioritise his/her own tasks.
- A detail-oriented and professional nature.

Additional qualifications

- Complementary to their Masters degree, additional knowledge and experience of one or more of the subjects required (epidemiology, biostatistics, and/or machine learning)
- Documented skills in data management and/or statistical analysis
- Prior experience of research in the fields of socioeconomic, lifestyle and clinical risk factors for disease, and/or the field of type 2 diabetes
- Prior experience of working with Swedish register data, longitudinal data, trajectory analysis, survival modelling, mediation analysis and/or machine learning based prediction models

Application

The application should include:

- A CV or resume (max 2 A4 pages)

- A cover letter in which you present your research interests and experience, and explain why you are interested in and suitable for this position (max 1 A4 page)
- Contact details (name, email and phone number) for two professional references
- Copies of verified academic transcripts
- If available, a Master thesis (completed or in draft form)
- MSc certificate (or equivalent)

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 22-09-01 or as agreed. Placement: Uppsala

For further information about the position, please contact: Hannah Brooke, PhD, email: Hannah.Brooke@surgsci.uu.se

For employment related questions, please contact HR-generalist Higran Saghir, higran.saghir@uu.se or personal coordinator Karin Johansson, karin.m.johansson@uu.se.

Please submit your application by 21 July 2022, UFV-PA 2022/2417.

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 Surgical Sciences

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 2022/2417

Last application date: 2022-07-21

[Apply for position](#)