

PhD student position in Experimental and Clinical Oncology

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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 45,000 students, more than 7,000 employees and a turnover of around SEK 7 billion.

The Department of Immunology, Genetics and Pathology at Uppsala University (www.igp.uu.se) has a broad research profile with strong research groups focused on cancer, autoimmune and genetic diseases. A fundamental idea at the department is to stimulate translational research and thereby closer interactions between medical research and health care. Research is presently conducted in the following areas: medical and clinical genetics, clinical immunology, pathology, neuro-oncology, vascular biology, radiation science and molecular tools. Department activities are also integrated with the units for Oncology, Clinical Genetics, Clinical Immunology, Clinical Pathology, and Hospital Physics at Akademiska sjukhuset, Uppsala. The department has teaching assignments in several education programmes, including Master Programmes, at the Faculty of Medicine, and in a number of educations at the Disciplinary Domain of Science and Technology. The department has a yearly turnover of around SEK 400 million, out of which more than half is made up of external funding. The staff amounts to approximately 340 employees, out of which 100 are PhD-students, and there are in total more than 700 affiliated people.

Project description: We are looking for a doctoral student with an special interest in the area of tumor biology with a focus on hematological tumors and epigenetic regulation of gene expression. The candidate will devote most of the time towards his/her research level education. Within this research level education the candidate

will mainly focus on studies on epigenetic mechanism and the impact of these for tumor transformation and progression of the tumor clone in two hematopoietic tumors, multiple myeloma and acute leukemia in infants. Mapping of tumor specific genes and areas regulated by modifications on DNA and histons will be identified, validated and functionally tested in patient material as well as in cell lines. The research project includes bioinformatic analysis and mapping by sequencing of DNA and RNA also at a single cell level will be performed for the identification of tumor specific epigenetic signatures. Furthermore functional validation including studies using selective and clinically relevant inhibitors to candidate target genes in vitro och in vivo will be part of the work.

Methods applied in the research project are for the analyses of growth, apoptosis and survival in in vitro and in vivo models of multiple myeloma and iALL including and primary patient material, established molecular- and cellbiological strategies (ChIPseq, DNA metylering, RNAseq och ATACseq) to map epigenetic signatures as a result of aberrant modifications on histon and DNA levels and gene expression at a population- and single cell level.

The successful candidate will devote most of the time towards his/her research level education. Other service activities within the department, e.g. education and administrative work can be included within the framework of the employment (maximum 20%). The position will be extended with the time devoted to teaching to allow four years of full time graduate studies.

Requirements: We are looking for applications from highly motivated candidates with a background and exams in natural science on advanced level/master level. Previous experience in experimental research within the area and methods is highly warranted. A requirement is that the candidate manage well the English language both in written and spoken form.

The application should include CV, copies of the exam and grades, master thesis including publications and a short description of your research interest.

Additional qualifications: An advantage will be previous experience in bioinformatics analysis in combination with practical experience in cell- and molecular biological methods in the research area.

Information about education at the postgraduate level, admission requirements and admission decisions can be found

at <https://mp.uu.se/web/info/forska/forskarutbildning/medicin-och-farmaci/>.

Selection of applicants will be done by the future tutor for the selected student in consultation with the postgraduate study group of the Department. The Postgraduate Programmes Committee at the Disciplinary Domain of Medicine will formally approve the student's admission.

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

Salary: According to local agreement for PhD students.

Starting date: 22-04-01 or as otherwise agreed.

Type of employment: Temporary position according to the Higher Education Ordinance chapter 5 § 7.

Scope of employment: 100 %

For further information about the position please contact: Helena Jernberg Wiklund, helena.jernberg_wiklund@igp.uu.se, 018-471 4812.

Please submit your application by 15 February 2022, UFV-PA 2021/4956.

Are you considering moving to Sweden to work at Uppsala University? If so, you will find a lot of information about working and living in Sweden at www.uu.se/joinus. You are also welcome to contact International Faculty and Staff Services at ifss@uadm.uu.se.

Please do not send offers of recruitment or advertising services.

Submit your application through Uppsala University's recruitment system.

Placement: Department of Immunology, Genetics and Pathology

Type of employment: Full time , Temporary position longer than 6 months

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 sacco@uadm.uu.se

Number of reference: UFV-PA 2021/4956

Last application date: 2022-02-15

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