PhD student in pharmaceutical bioinformatics with a focus on analysis of high-content imaging with AI

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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 Pharmaceutical Biosciences has 135 employees as well as a number of guest researchers and fellows. The department has fifteen research groups / research areas with a joint administration and we conduct research and teaching in pharmaceutical cell biology and biotechnology, biochemistry, immunology, protein drug design, biological drugs / biotechnology, pharmacology, pharmaceutical and drug addiction, pharmacognosy, galenic pharmacy, bioinformatics, imaging mass spectrometry, molecular neuropharmacology, as well as toxicology and drug safety. More information about the department and its activities can be found at www.farmbio.uu.se.

Duties/Project description: We are currently looking for an ambitious, highly motivated PhD student with a solid background in data science and AI, to join the research group of Prof. Ola Spjuth (group website: https://pharmb.io). The successful candidate will join an interdisciplinary team of researchers and participate in a project to build up an intelligent, automated laboratory for cell profiling, with applications in systems medicine. The focus of the project is to develop and apply methods for analyzing images from large-scale high-content imaging experiments such as drug
screening. This includes image analysis such as cell segmentation, calculation of morphological features, unsupervised and supervised learning (AI/ML) including deep learning on image-based data. For more information, see https://pharmb.io/project/autonomous-phenomics/. The project is a collaboration with the Kallioniemi group (https://ki.se/en/onkpat/olli-kallioniemis-group) at Karolinska Institutet. The position is a 5 year position that includes 20% teaching.

Requirements: The highly motivated candidate should have a MSc in science, data science, bioinformatics, or equivalent field. Documented experience in data science, python programming, image analysis and experience from working on linux-systems is a requirement. AI/ML-modeling with methods such as deep neural networks trained on image data is a requirement. Previous experience of image analysis of cells, specifically using high-throughput and high-content microscopy imaging, is meriting.

The candidate should have excellent communication skills and be keen on actively interacting with other team members including biologists, software engineers, and researchers in AI/ML. You are able to take instructions but also work independently to carry out analysis on your own. Excellent skills in oral and written English are required.

Information about research-level education, eligibility requirements, and admission regulations can be found at http://www2.medfarm.uu.se/utbildning/forskarniva/.

Applicants will be ranked by the supervisor in consultation with the Department Research Education group. The Committee for Research Education at the Disciplinary Domain of Medicine-Pharmacy will admit the PhD student. Salaries will follow local guidelines at Uppsala University.

Rules governing PhD candidates are set out in the Higher Education Ordinance Chapter 5, §§ 1-7 and in Uppsala university's rules and guidelines http://regler.uu.se/? languageld=1

The holders of PhD student position primarily devote their time to own research-level education. Other duties at the Department involving teaching and administrative tasks maybe included in the framework of the position (max 20%). The PhD program normally lasts for 4 years research, plus maximally one year of teaching.
Salary: According to local agreement for PhD students.

Starting date: 01-03-2021 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: Professor Ola Spjuth, e-mail Ola.Spjuth@farmbio.uu.se or administrative coordinator Marina Rönngren, e-mail marina.ronngren@farmbio.uu.se.

Please submit your application by 28 January 2021, UFV-PA 2020/5036.

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: Bioinformatik
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
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