

## **PhD Student in Machine Learning and Computational Biology, University of Helsinki, Finland.**

The Institute for Molecular Medicine Finland (FIMM) is an international research unit focusing on human genomics and personalised medicine at the Helsinki Institute of Life Science (HiLIFE) of the University of Helsinki - a leading Nordic university with a strong commitment to life science research. As part of Academic Medical Center Helsinki in Meilahti campus FIMM collaborates locally with the Faculty of Medicine, Helsinki University Hospital and National Institute for Health and Welfare. FIMM is part of the Nordic EMBL Partnership for Molecular Medicine, composed of the European Molecular Biology Laboratory (EMBL) and the centres for molecular medicine in Norway, Sweden and Denmark, and the EU-LIFE Community.

FIMM is currently seeking a

PhD student in machine learning and computational biology

A PhD student position is available in the research group of FIMM-EMBL Group Leader Dr. Esa Pitkänen at the Institute of Molecular Medicine Finland (FIMM), University of Helsinki. The research group will start at FIMM in July 2019, and will address data integration, analysis and interpretation challenges stemming from massive-scale data generated in clinical and research settings. We will work closely with interdisciplinary collaborators at University of Helsinki, Helsinki University Hospital, EMBL and German Cancer Research Center. Specific application areas include hematological diseases, and diseases where somatic mutagenesis has a central role, such as cancer. The PhD student will work on projects such as multimodal joint learning from clinical sequencing and imaging data utilizing techniques of deep learning, aiming to create methods useful in clinical practice.

Selected publications:

Katainen, ..., Pitkänen. Discovery of potential causative mutations in human coding and noncoding genome with the interactive software BasePlayer. *Nature Protocols* (2018)

Palin, Pitkänen et al. Contribution of allelic imbalance to colorectal cancer. *Nature Communications* (2018)

Waszak et al. Germline determinants of the somatic mutation landscape in 2,642 cancer genomes. *bioRxiv* (2017)

Kondelin, ..., Pitkänen. Comprehensive evaluation of protein coding mononucleotide microsatellites in microsatellite-unstable colorectal cancer. *Cancer Research* (2017)

Katainen, Dave, Pitkänen, Palin et al. CTCF/cohesin-binding sites are frequently mutated in cancer. *Nature Genetics* (2015)

Qualifications:

A recent MSc degree (or close to completion) in bioinformatics, computational biology, computer science, statistics or mathematics, or a related field

Proficiency in programming

Excellent oral and written communication skills in English

Ability to work as a part of an interdisciplinary team

The salary will be commensurate with qualifications based on the Finnish university salary (YPJ) system on previous qualifications, experience and performance in the position. The contract will be offered initially for two years. A six-month trial period will be applied.

To apply, please submit the application together with your CV, two letters of reference, and a cover letter through the University of Helsinki electronic recruitment system by clicking on Apply for job. Internal applicants (i.e., current employees of the University of Helsinki) please submit your applications through the SAP HR portal.

Applications are welcomed as soon as possible - the call will be open until a hiring decision is made and can therefore be terminated even before the end of June. The earliest start date is in July 2019.

For further information please visit our website at [fimm.fi](http://fimm.fi) or contact [esa.pitkanen@helsinki.fi](mailto:esa.pitkanen@helsinki.fi).

For technical support with the recruitment system, please contact [rekrytointi@helsinki.fi](mailto:rekrytointi@helsinki.fi).

Due date

30.06.2019 23:59 EEST