INVITATION FOR APPLICATIONS

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 the leading genetics and genomics research unit in Finland. We are managing petabytes of human genetic and health data and these datasets will increase tenfold in the forthcoming years. We’re daily collaborating with top researchers and research institutes in the world and international health-care companies to improve health and well-being on a global scale.

FIMM is currently seeking a

Bioinformatician / data analyst

We are looking for a bioinformatician / data analyst with experience on functional genomics data and analyses, RNA sequencing in particular. The data analyst would be working in one of the largest genetic projects in the world, FinnGen.

Job description:

We are looking for a bioinformatician / data analyst having experience with functional genomics data and analyses, RNA sequencing in particular. The data analyst would be working in one of the largest genetic projects in the world, FinnGen. Launched in 2017, FinnGen is a unique research project that combines genomic information with healthcare data from national registries in search of the next breakthroughs in disease prevention, diagnosis, and treatment. The aim is to get 500,000 Finns to participate in the study through donation of a sample to a biobank. FinnGen brings together academic partners, the nation-wide network of Finnish biobanks & nine pharmaceutical companies.

The candidate will work in as part of a research team based at FIMM, yet will also integrate and work closely with the other FinnGen data analysis teams based both at FIMM and at the Broad Institute of Harvard and MIT in Boston, US. The candidate will report to Dr. Mark Daly (Director of FIMM, one of the most cited scientists in genetics https://hcr.clarivate.com ) and Dr. Taru Tukiainen (group leader at FIMM). The successful candidate will join an interdisciplinary team of computational biologists, computer scientists, bioinformaticians, analysts, epidemiologists and clinicians who are developing the FinnGen dataset. Additionally, the candidate will work as a member of the Tukiainen group which uses RNA sequencing in diverse types of settings to infer the biology of sex differences in human health and disease, including the analysis of male-female differences in various tissue types and developmental time points, and the use of single cell sequencing to understand detailed molecular-level phenomena.

The main responsibility will be to lead the integration of transcriptomics and other omics data to the genetic discoveries emerging from FinnGen to facilitate the biological interpretation of the findings. This will include processing and quality control of RNA sequencing (RNA-seq) data from diverse sources, integration of transcriptomics information with genotype data via, e.g., eQTL and allele specific expression analyses, application and evaluation of published methods for transcriptome analyses including differential expression and cell type decomposition, interpretation and troubleshooting of analyses, and result visualization and reporting. The candidate will also take part in designing the experiments and analyses, including writing research proposals, and in reporting the results to the FinnGen community.

Suitable backgrounds for the candidate would include a degree in bioinformatics, genetics, computational biology, computer sciences or other relevant field.

In close partnership with:
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The ideal candidate should have experience in handling next generation sequencing data, and specifically familiarity with RNA-seq technology and use cases of transcriptomics data is required. This includes the knowledge of commonly used formats and tools for transcriptomic data processing and analysis. Experience with statistical programming in R is highly valued, as is good Linux/Unix user skills and skills in genetic data analysis, and willingness to learn more. Other programming skills (e.g. Python) and knowledge of applied statistics are an asset. Interest in biology is valued. Good command of English is essential as we are an international research team.

The primary responsibilities of the position include:

- Aggregation, processing, and quality control of transcriptomic data from public repositories, biobanks, as well as data sets being generated within the project
- Analyses of transcriptomic data using analysis methods such as allele specific expression, eQTL, differential expression, cell type decomposition, as well as the interpretation of results
- Comparison and integration of international and Finnish transcriptomic resources
- Integration and joint analysis of transcriptomic data with genotype and phenotype information
- Scientific writing and communication
- Participate in designing experiments and analyses

Qualifications and experience:

- Master’s/Bachelor’s degree (or soon graduating) in bioinformatics, genetics, computational biology, molecular biology (with strong computational skills), computer sciences, or other relevant quantitative field. Ph.D. is an asset.
- Previous experience with handling and analysis of RNA sequencing data is highly valued – yet ability to learn new is essential
- Capability to work effortlessly in Linux/Unix environment, experience with R/Bioconductor, programming skills
- Solution-seeking, proactive, and responsible way of working and keeping deadlines under pressure
- Proficiency in oral and written English, our team is international

Salary and contract:
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 initially be offered until August 2023, and may be extended.

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

Please apply no later than 30th November 2019. The employment may begin as soon as possible or as agreed.

For further information please visit our website at http://www.fimm.fi and/or contact FIMM group leader Taru Tukiainen (taru.tukiainen@fimm.fi), FIMM director Mark Daly (mark.daly@fimm.fi) or project coordinator Risto Kajanne, (risto.kajanne(at)helsinki.fi) (+358 50 556 0316).