UNIVERSITETET I OSLO

Jobbnorge-ID: 139939
Søknadsfrist: Avsluttet
Nettside:
Omfang:
Varighet:

Postdoctoral Research Fellow in Genomics and Bioinformatics

A three year position as Postdoctoral Research Fellow available at CEES, Department of Biosciences.

The fellowship is for a period of 3 years, with 10 % compulsory work (teaching responsibilities at the Department) provided that the successful candidate has good knowledge of one of the Scandinavian languages (Norwegian, Swedish, Danish). Starting date will be no later than 01.10.2017. Note that no one can be appointed for more than one fixed-term period (post doc period) at the same institution.

The Postdoctoral fellow will be connected to a collaborative project between CEES - Centre for Ecological and Evolutionary Synthesis and EVOGENE - the Section for Genetics and Evolutionary Biology. The project is associated with an ongoing project entitled “Evolutionary and functional importance of simple repeats in the genome” which is funded by the Research council of Norway through the FRIPRO program as a selected frontier research project. As such, the candidate will be working in one of the leading research groups in Norway headed by professor Kjetill S. Jakobsen.

Project description

The project focuses on the functional modulation of regulatory mechanisms affecting the phenotype by variations in simple repeats (STRs) including tri-nucleotide repeats (TNRs) residing inside (coding) and in the vicinity (or in introns) of genes. Specifically, we will test the hypothesis that hypervariable coding/regulatory repeats are promoting the ability of a species or population to adapt to a changing environment. To address this, we will use Arabidopsis and Atlantic cod as model systems. In addition, we will also investigate other organisms representing diverse branches of the tree of life. The project is cross-disciplinary and will utilize genomics, bioinformatics, statistics and experimental approaches. The appointed postdoctoral fellow will work in a team consisting of several professors, researchers and 4 doctoral and postdoctoral candidates.

The postdoctoral fellow will investigate the genomic architecture of repeats and repeat-length variation in individuals of Atlantic cod and other fish species (including the model zebrafish). Data from the Aqua Genome Project will be central to the investigation. However, genome assemblies generated with the PacBio long read technology will also be analyzed. Highly sophisticated statistical and bioinformatical methods will be used and if necessary, developed. A goal will be to obtain a number of candidate genes containing repeat length variation as a response to selection regimes and understand how this variation affects the phenotype. The post doc will also take part in (through supervision) the investigations of simple repeats in Arabidopsis.

The project as a whole consists of three interconnected work packages. The successful candidate will work on the two work packages entitled “Genomic repeat architecture in Arabidopsis and Atlantic cod and length variation in simple repeats” and “Survey of genome architecture and simple repeats in wide selection of genomes”. The project has international collaborators and research visits to collaborating partners will be encouraged.

Requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition of being a leading research faculty. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

Applicants must hold a PhD-degree (or other corresponding education equivalent to a Norwegian doctoral degree).

We are seeking a highly motivated, enthusiastic and hard-working postdoctoral candidate with the ambition to gain new insights in evolutionary genomics and publish papers in leading, international journals. The applicant must have documented experience with de novo large eukaryote genome assembly and annotation including experience with PacBio and combined PacBio and Illumina assemblies. It is expected that the candidate has experience with the Celera and Canu assemblers, and tools for annotation of genome assemblies, such as MAKER. Experience with statistical and bioinformatics analyses of STRs and TNRs knowledge about their dynamics and evolution is an advantage. Further, it will be highly advantageous that the candidate has experience with teleost genome biology and evolution. Good programming skills in Python and ability to perform statistics with either Python or R, are required.

Applicants must show good interpersonal skills and be willing to work in close collaboration with the project PI and other members of the project team, as well as have the ability to work independently. Applicants should have a good publication record for their career stage.

The main purpose of post-doctoral research fellowships is to qualify researchers to work in top academic positions within their disciplines.

Please also refer to the regulations pertaining to the conditions of employment for post-doctoral fellowship positions: https://www.uio.no/english/about/regulations/index.html

A good command of English is required.

We offer:

- Salary NOK 490 900 - 569 000 per annum depending on qualifications in position as Postdoctoral Research Fellowship (position code 1352)

- A professionally stimulating working environment
- Attractive welfare benefits and a generous pension agreement, in addition to Oslo’s family-friendly environment with its rich opportunities for culture and outdoor activities

The application must include:

- Application letter including a statement of interest, briefly summarizing your scientific work and interests and describing how you fit the description of the person we seek
- CV (summarizing education, positions, administrative experience and other qualifying activity)
- Copies of educational certificates
- A complete list of publications and unpublished work, and up to 5 academic papers that the applicant wishes to be considered by the evaluation committee
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

The application with attachments must be delivered in our electronic recruiting system, please follow the link “apply for this job”. Foreign applicants are advised to attach an explanation of their University's grading system. Please note that all documents should be in English (or a Scandinavian language).

The University of Oslo has an agreement for all employees, aiming to secure rights to research results a.o.

The University of Oslo aims to achieve a balanced gender composition in the workforce and to recruit people with ethnic minority backgrounds.

Contact persons:

Prof. Kjetill S Jakobsen (k.s.jakobsen@ibv.uio.no)

Dr Sissel Jentoft (sissel.jentoft@ibv.uio.no)

Assoc. Prof. Melinka A Butenko (m.a.butenko@ibv.uio.no)

For questions regarding the recruitment system, please contact HR Adviser Torunnn Standal Guttormsen, phone +47 22854272 - email: t.s.guttormsen@mn.uio.no

Tilleggsinformasjon

Arbeidssted: