



UNIVERSITETET
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Jobbnorge ID: 234939
Deadline: 11/23/2022
Website: <http://www.uio.no/>
Scope: Fulltime
Duration: Engagement

Postdoctoral Research Fellow in bioinformatics/statistics

Job description

Applications are invited for a 2-year full time Postdoctoral Research Fellow position in bioinformatics/statistics at the Centre for Bioinformatics, University of Oslo.

No one can be appointed for more than one Postdoctoral Research Fellowship at the University of Oslo.

The researcher will be a main contributor to an EU-funded project on locally advanced laryngeal and hypopharyngeal squamous cell cancer. Treatment for such cancers may be treatment with certain forms of chemotherapy followed by radiotherapy for larynx preservation as an alternative to total laryngectomy. As not all patients benefit from this strategy, there is a strong need to define biomarkers for patient selection and treatment optimization. The project aims to develop a multimodal signature predictive of response to therapy and to define alternative pathways to be tackled in patients not responding to the current treatment. The project will collect and integrate a large series of clinically annotated data from cancer patients after treatment, to assess a multi-omic signature of response to treatment and to define alternative pathways. Transcriptomic analysis, molecular data on cell lines and radiomic evaluation will be main components of the signature development. Model predictions of response for individual/groups of patients allowing in-silico simulations of treatment response by means of patient-based inference of tumor biology, in particular for response to therapy, by exploiting combined genomics and radiomics; and a new multifactorial AI algorithms informing personalized treatment based on patient's profiles will be employed. Validation will take the form of a phase II pilot trial using the developed models and signatures.

Centre for Bioinformatics constitutes the hub of bioinformatics and computational biology at the University of Oslo, (<https://www.mn.uio.no/sbi/english/>).

Our competence spans from precision medicine through all aspects of genomics, regardless of species and populations, through to protein structure. The centre consists of five research groups addressing various topics using state of the art algorithmic approaches, including machine learning, modelling and sequence-oriented analysis. The centre also comprises the Oslo node of ELIXIR Norway, which is the national bioinformatics infrastructure platform.

The centre is led by Professor Eivind Hovig. He has pioneered network approaches to study genetic information in cancer by text mining, and his current research includes precision oncology, synergistic drug prediction, and heritable cancer genetics. There is also tight collaboration with Oslo Centre for biostatistics and epidemiology (OCBE), headed by Arnoldo Frigessi. The current project will benefit from this collaboration, which also includes dr. Marissa LeBlanc, dr. Mauricio Moreira Soares, and Erlend Ignacio Fleck, working on highly related projects.

More about the position

The project requires competence in several directions, but we do not expect that candidates have all competences already. Although being mostly active in one area, the candidate should have a clear interest in the three areas:

- bioinformatics
- experience with working with data from human subjects, with understanding of anonymization issues, clinical epidemiology, randomized clinical trials, observational studies
- statistics

The main purpose of the fellowship is to qualify researchers for work in higher academic positions within their disciplines.

Development plan:

The main purpose of a postdoctoral fellowship is to provide the candidates with enhanced skills to pursue a scientific top position within or beyond academia. To promote a strategic career path, all postdoctoral research fellows are required to submit a [professional development plan](#) no later than one month after commencement of the postdoctoral period.

Qualification requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition to be among Europe's leading communities for research, education and innovation. 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.

Required qualifications:

- Applicants must hold a PhD degree in bioinformatics, statistics, computer science or biostatistics, or other disciplines with documented experience in bioinformatics or statistics. A doctoral dissertation must have been submitted for evaluation by the application deadline. Appointment is dependent on the public defense of the doctoral thesis being approved.
- Experience with genomic data sets is a strong advantage, but not necessary.
- Experience with machine learning algorithms is an advantage, but not necessary.
- Documented programming skills in R, python, MatLab, C, C++ or equivalent are necessary.
- Fluent oral and written communication skills in English, which is the working language in the project.

Desirable qualifications:

- Experience in cancer research

Personal skills

- The candidate must express genuine interest in developing and applying statistical, bioinformatics and/or machine learning, methodology to outstanding medical research questions
- The candidate is used to work in interdisciplinary teams and has excellent communication skills
- The candidate has shown the ability to work independently and efficiently

We offer

- Salary NOK 544 400 - 626 300 per year depending on qualifications in position as Postdoctoral Research Fellowship (position code 1352)
- Access to unique data and competence
- A friendly, professional and stimulating international working environment.
- Access to a network of top level national and international collaborators.
- [Postdoctoral development programmes](#)

How to apply

The application must include:

- A personal cover letter, stating motivations for this position and research interests
- A CV with full education, positions, academic experiences, details on PhD thesis, detailed computational skills and a list of publications
- Copies of educational certificates (academic transcripts only)
- List of reference persons: 2-3 references (name, relation to candidate, e-mail and phone 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).

In assessing the applications, special emphasis will be placed on the documented, academic qualifications, the project description (whenever this is required in the call for applicants), and the quality of the project as well as the candidates motivation and personal suitability.

Interviews with the best qualified candidates will be arranged. It is expected that the successful candidate will be able to complete the project in the course of the period of employment.

Formal regulations

Please see the [guidelines and regulations](#) for appointments to Postdoctoral fellowships at the University of Oslo.

No one can be appointed for more than one Postdoctoral Fellow period at the University of Oslo.

If an applicant has applied for and been granted funding for a fulltime research stay abroad while being employed as a Postdoctoral Research Fellow, the employment will be prolonged with the equivalent time as the research stay, but for no longer than of twelve months (thus extending the employment to a maximum of four years).

According to the Norwegian Freedom of Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

Inclusion and diversity are a strength. The University of Oslo has a personnel policy objective of achieving a balanced gender composition. Furthermore, we want employees with diverse professional expertise, life experience and perspectives.

If there are qualified applicants with disabilities, employment gaps or immigrant background, we will invite at least one applicant from each of these categories to an interview.

Contact information

Professor Eivind Hovig, e-mail: ehovig@ifi.uio.no, mob +47 93069881 or Professor Arnoldo Frigessi, e-mail: frigessi@medisin.uio.no, mob +47 95735574.

For questions regarding the recruitment system, please contact HR Adviser Therese Ringvold, phone: +47 22856106, e-mail: therese.ringvold@mn.uio.no

About the University of Oslo

The University of Oslo is Norway's oldest and highest rated institution of research and education with 28 000 students and 7500 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

The Department of Informatics (IFI) is one of nine departments belonging to the Faculty of Mathematics and Natural Sciences. IFI is Norway's largest university department for general education and research in Computer Science and related topics.

The Department has more than 1800 students on bachelor level, 600 master students, and over 240 PhDs and postdocs. The overall staff of the Department is close to 370 employees, about 280 of these in full time positions. The full time tenured academic staff is 75, mostly Full/Associate Professors.

Additional information

Place of service:

Gaustadalléen 23 B 0373 Oslo (Oslo Municipality)