



Doctoral research fellow in imaging genetics and machine learning

Job description

A 4-year PhD research position is available at the Department of Psychology, University of Oslo. The position is funded by the UiO:Life Science Convergence Environment (<https://www.uio.no/english/research/strategic-research-areas/life-science/research/convergence-environments/4ment/>), and the candidate will be integrated in a cross-disciplinary team spanning psychology, medicine, computational neuroscience, genetics and philosophy. The focus of this position is to advance methods for personalized approaches in clinical neuroscience by integrating genetic, imaging and clinical data using machine learning.

The position is affiliated with the Multimodal Imaging group (<https://www.med.uio.no/norment/english/research/groups/multimodal-imaging>; assoc. prof. Lars T. Westlye, at the Norwegian Centre for Mental Disorders Research (NORMENT) and the Center for Lifespan Changes in Brain and Cognition (<https://www.oslobrains.no/>; assoc. prof. Yunpeng Wang), University of Oslo.

NORMENT is a Norwegian Centre of Excellence aiming to identify causes and improve treatment of mental illness. The Multimodal Imaging group is funded by an ERC Starting Grant in addition to several grants from the Research council of Norway and the Norwegian Regional Health Authorities. The group is directly involved in various large-scale international collaborative efforts and consortia, to which the successful candidate is expected to contribute.

LCBC is an international and multi-disciplinary research center. It coordinates the largest EU funded project studying lifespan changes in brain and cognition, 'LifeBrain' (<https://www.oslobrains.no/>), and a number of projects funded by the ERC, the Norwegian Research Council, EU and The National Health Association. LCBC was in 2015, as one of five, appointed status as a "world leading" research group at the University of Oslo.

More about the position

The fellowship will be for a period of 4 years, including 25% compulsory work for UiO:Life Science. In addition to large-scale imaging genetics data from population-based studies (e.g ABCD, UK Biobank), our group has collected genetic (SNP, DNA methylation; proteomic), brain imaging (MRI, fMRI, and PET) and clinical (symptoms, diagnosis) data from a large number of patients with mental disorders and healthy controls.

The candidate is expected to use and/or develop machine learning models to integrate such data to expand our knowledge about risk and protective factors in relation to mental disorders. The candidate will work closely with other PhD and post doc fellows from other disciplines such as neurosciences, psychology, molecular biology and mathematics.

Qualification requirements

- Applicants must hold a Master's degree within a relevant field, with documented experience in machine learning, data mining, bioinformatics, biostatistics, or computer sciences. Previous training in brain imaging or statistical genetics will be preferred, but is not a prerequisite.
- Fluent oral and written communication skills in English.
- Experience with statistical analysis and programming in at least one of following languages: R, Python, Matlab, Julia, C++/C, Java.

Personal skills

- Candidates who are ambitious, innovative, self-motivated and organized will be preferred.
- The candidate must be qualified for admission to the PhD program at the Faculty of Social Science, University of Oslo (<https://www.uio.no/english/research/phd/>).

We offer

- Salary (NOK 449 400- 505 800per year) - depending on experience and qualifications.
- An ambitious and exciting research environment with a strong multidisciplinary profile and excellent opportunities for academic development.
- Attractive welfare benefits (<https://www.uio.no/english/for-employees/employment/welfare/>), including excellent benefits for families (kindergarten, paid paternal/maternal leave etc) and a generous pension agreement.
- In addition, Oslo offers a highly family-friendly environment with its rich opportunities for culture and outdoor activities in its immediate surroundings.

How to apply

The application must include:

- Cover letter (statement of motivation, summarizing scientific work and research interest, including a brief career plan).
- CV (summarizing education, positions, academic output [publications, software, code etc] and other qualifying activity including grant applications etc).
- Copies of educational certificates (academic transcripts only).
- A complete list of publications, if any (including preprints with valid links).
- List of 2-3 references (name, relation to candidate, e-mail and phone number)

In assessing the applications, special emphasis will be placed on the documented, academic qualifications, as well as the candidate's motivation and personal suitability. Interviews with the shortlisted candidates will be arranged.

Formal regulations

Please see the guidelines and regulations for appointments to PhD positions at the University of Oslo.

According to the Norwegian Freedom and 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.

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

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

Contact information

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Assoc prof Lars T. Westlye (l.t.westlye@psykologi.uio.no)

About the University of Oslo

The University of Oslo is Norway's oldest and highest ranked educational and research institution, with 28 000 students and 7000 employees. With its broad range of academic disciplines and internationally recognised research communities, UiO is an important contributor to society.

The Department of Psychology is one of seven units of the Faculty of Social Sciences, and has 75 permanent and 70 temporary members of scientific staff. Degrees are offered at bachelor and master level, plus a clinical training programme, and the PhD programme has 140 students.

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