PhD Candidate in Molecular Biology/Functional Genomics

At the Department of Medicine, Haukeland University Hospital (HUS), there is a vacant position for a PhD candidate for a period of three (3) years. The position is linked to the project: "Cytokine autoantibodies reveal monogenic inheritance of endocrine autoimmunity" funded by the the Norwegian research council (NFR). The main supervisor will be researcher Anette S. B. Wolff.

General about the project: In several monogenic conditions, patients experience both frequent and extensive infections (immunodeficiency) along with various autoimmune manifestations. It is important to diagnose such conditions early, and it is desirable to identify underlying disease mechanisms. The project's hypothesis is that such conditions are often associated with cytokine autoantibodies in the patients' blood. In this project, the candidate will screen biobanks with samples from patients with endocrine and/or immunodeficiency diagnoses for autoantibodies against various types of cytokines, including interferons, using Luminex technology. Positive findings will lead to the patient's DNA being exome/genome sequenced, focusing on rare variants in immune genes. The candidate will characterize new gene variants functionally in in vitro cell systems (combined with for example CRISPR/Cas9 modification of genes) and in primary cell experiments (with spectral flow/mass cytometry, use of phospho-markers for signaling pathway analysis, cell metabolism assays, cytokine analyses, etc.). We will use several relevant biobanks, such as the "Registry and Biobank for Organ-Specific Autoimmune Diseases (ROAS)" and the new "Research Registry and Biobank for Immunodeficiency Vestland" at HUS. We also collaborate nationally and internationally with other biobanks. Parts of the project will involve exploring mice models to search for the mechanism behind the generation of cytokine autoantibodies in immune deficiencies/autoimmunity.

PhD Position: The PhD position is a fixed-term position. No one can be employed as a PhD candidate for more than one fixed-term period at the same institution. You also cannot be employed in a PhD position if you have previously held such a position at another institution in the region. We emphasize that the successful candidate must have a master degree of relevance, and it has to be acknowledged by the Norwegian NOKUT-system before start of the project.

Tasks: The PhD candidate's tasks will include "wet lab" analyses, but it is a prerequisite to be familiar will R based tools for bioinformatic and statistical analyses. Especially genomics will be beneficial to have experience with. The experiments will take place in modern laboratory facilities in the Laboratory Block on the Haukeland campus. Analysis of research mice will be part of the task portfolio. The PhD student is expected to prepare manuscripts for publication. Training in relevant methods will be provided, and the PhD candidate will have the opportunity to attend necessary courses.

The person hired will work in a growing and stimulating research environment in the research group "Endocrine Medicine" (Haukeland University Hospital/University of Bergen). The group has several focus areas, and this project will be part of the node led by Anette S. B. Wolff. There will be researchers at various levels and with different expertise in the group, and the candidate will have the opportunity to collaborate closely with various professionals in this translational project.

Research Education: After employment, the PhD candidate must apply for admission to the PhD program at the Faculty of Medicine, University of Bergen. The final plan for the completion of the research education must be approved by the Faculty of Medicine within three months after you have started in the position.

Qualifications:

The applicant should preferably have completed a master's degree before the application deadline in biomedicine, biostatistics, bioinformatics, genomics, molecular biology, immunology, medicine (Cand.Med), or equivalent. Master students who graduate in the Spring of 2025 may apply for the position, but then they must fulfil the degree with at least the grade C before 1st July 2025 and the application should include a letter from the main master supervisor to confirm their progress.

In the assessment, emphasis will be placed on interest and academic insight in functional genomics.

Laboratory experience in various molecular and immunological techniques is a demand.

Interest and some experience in using data knowledge to analyze and interpret genomic and biological data is important.

The successful candidate should preferably have experience with mouse work or/and have an approved FELASA-C (course in animal research).

Knowledge of R for bioinformatics analysis is an advantage.

Personal qualities:

Good collaboration skills

Ability to structure oneself and work independently

Ability and motivation to complete a PhD project

Good written and oral English is required

Personal and relational qualities will be emphasized.

We offer:

Salary according to Helse Vest's rates for PhD candidates (position code 1378)

Good pension scheme in KLP.

Welfare schemes in Helse Bergen

High professional level

Good opportunities to complete a PhD work

The application must include:

A short summary of relevant competence, experience, and motivation for applying for the position

Certified copies of diplomas (all higher education) and relevant certificates

Applicants with foreign education **must** attach a certified translation into English or Scandinavian if the original diploma and transcripts are not in one of these languages. The applicant must also attach

NOKUT's general approval that the education corresponds to a Norwegian master's degree. See www.nokut.no for more information on general approval of higher education

An overview of education and work experience (CV)

Contact information for two people who can be references

List of any scientific work (publication list)

Please note that applications are assessed with the information and attachments linked to the application in Webcruiter when the application deadline expires. The attachments must be in English or Norwegian, and any translations must be certified. It is the applicant's responsibility to ensure that all information is submitted within the deadline

The Helse Vest group aims to reflect the diversity of the population in our recruitment. We encourage all qualified individuals to apply for vacant positions regardless of gender, age, disability, and multicultural background. The same applies if you have had a longer break from working life. The Helse Vest group aims to facilitate inclusive recruitment.

For further information about the position, you can contact researcher Anette S. B. Wolff, email: Anette.susanne.boe.wolff@helse-bergen.no; phone +4791623378.

Apply through the Norwegian system Webcruiter (https://candidate.webcruiter.com/nb-no/Account/SpaLogin?ReturnUrl=%2F)

Application deadline: March 15th, 2025.