

Jobbnorge ID: 245172
Deadline: 6/30/2023
Website: <http://www.uis.no/>
Scope: Fulltime
Duration: Fixed Term

PhD Fellowship in Intestinal Microbiome Analysis and Parasites as Health and Disease Biomarkers

Job description

The University of Stavanger invites applicants for a PhD Fellowship in Intestinal Microbiome Analysis and Parasites as Health and Disease Biomarkers at the Faculty of Science and Technology, Department of Chemistry, Bioscience and Environmental Engineering. The position is vacant from 1st of September 2023.

This is a trainee position that will give promising researchers an opportunity for academic development through a PhD education leading to a doctoral degree.

The hired candidate will be admitted to the PhD program in Science and Technology. The education includes relevant courses amounting to about six months of study, a dissertation based on independent research, participation in national and international research environments, relevant academic communication, a trial lecture and public defence. Read more about the PhD education at UiS on [our website](#).

The appointment is for three years with research duties exclusively.

The position will be affiliated with the following project: The role of Blastocystis in inflammatory bowel disease, funded by The Research Council of Norway.

This is a large interdisciplinary project with collaborators at the Stavanger University Hospital, the Staten Serum Institute (SSI) in Copenhagen, Denmark, and the Institute of Parasitology in České Budějovice, Czech Republic. See [here](#) for more details.

The PhD student will be part of a team including one Postdoctoral Fellow, a total of four PhD students and a study nurse.

The project will be carried out mainly at the Staten Serum Institute in Copenhagen in the Laboratory of Parasitology under the supervision of Dr Christen Rune Stensvold, and co-supervised by Dr Thomas Dantoft (DanFunD cohort; see below) and Prof Allan Linneberg (Department of Public Health, Section for Epidemiology, University of Copenhagen) as part as the ongoing collaboration with Professor Mark van der Giezen at the University of Stavanger.

About the project

In the clinic, non-fungal microbial eukaryotes are usually treated as parasites. However, recent data suggest a possible beneficial and/or commensal role for intestinal eukaryotes such as Blastocystis. Given the widespread distribution of Blastocystis in the general population and our preliminary data, we hypothesise that this intestinal microbe plays a beneficial role in human intestinal health and inflammatory bowel disease (IBD) in particular.

Our hypothesis is that the common microbial eukaryote Blastocystis is part of the healthy gut microbiome. We will test our subhypothesis using the 7,500-subject baseline cohort of the large Danish epidemiological study of Functional Disorders (DanFunD), for which 2,500 faecal samples are available. This cohort includes healthy individuals as well as individuals with functional and organic diseases and thus serves as an ideal background population. Participants completed questionnaires on health-related quality of life, physical activity, and general health and lifestyle information and submitted stool samples for analysis. Participants had completed a general health examination, and we have data on standard blood biochemistry measures; i.e., cholesterol, lipids, fasting glucose, insulin, etc. This study has the potential to provide robust data on the distribution of Blastocystis in the general population.

Aim: What characterises Blastocystis carriers and who has Blastocystis?

You will:

- investigate whether the prevalence of Blastocystis is lower in individuals with functional disorders compared with healthy controls
- test whether those colonised with Blastocystis have lower BMI than those who are not colonised
- investigate whether this is reflected in other physiological measures related to BMI
- examine the relationship between Blastocystis and bacteria with known effects on glucose metabolism and insulin resistance
- examine whether a change in diagnosis or physiological measurements over 5 years, including BMI, is reflected in an altered distribution of Blastocystis at baseline.
- test whether individuals colonised with Blastocystis have different dietary preferences than individuals who are not colonised.
- identify differences in microbial diversity (richness, alpha and beta diversity, log2fold changes/differences in gut bacterial taxa, etc.) between individuals colonised with Blastocystis and those who are not and determine whether a core microbiome can be associated with Blastocystis colonisation based on analysis of diversity and the most abundant bacterial genera. If clear associations between Blastocystis and bacteria can be identified, we will investigate whether Blastocystis actively modulates the gut microbiota or whether it is merely an indicator of specific gut microbial communities.

Qualification requirements

We are looking for applicants with a strong academic background who have completed a five-year master degree (3+2) within bioinformatics, epidemiology/public health, or another relevant field, preferably acquired recently; or who possess corresponding qualifications that could provide a basis for successfully completing a doctorate.

To be eligible for admission to the doctoral programmes at the University of Stavanger both the grade for your master's thesis and the weighted average grade of your master's degree must individually be equivalent to or better than a B grade. If you finish your education (masters degree) in the spring of 2023 you are also welcome to apply.

Applicants with an education from an institution with a different grade scale than A-F, and/or with other types of credits than sp/ECTS, must attach a confirmed conversion scale that shows how the grades can be compared with the Norwegian A-F scale and a Diploma Supplement or similar that explains the scope of the subjects that are included in the education. [You can use these conversion scales to calculate your points for admission.](#)

You must also:

- have strong skills and vast interest in bioinformatics and/or epidemiological methods
- have skills in extracting data from registers
- have strong interest in unravelling the role of common intestinal micro-eukaryotes in human health and disease
- attach cover letter showing your motivation and interest in the project, and the relevance of your background and experience. The cover letter will be included in the application assessment.

Emphasis is also placed on you:

- experience in complex data analyses using R or other software, and experience in epidemiological analysis and methods
- experience or knowledge on gut microbiota diversity analyses
- knowledge in intestinal microbiology, preferably with Blastocystis
- knowledge in molecular biology techniques and about next-generation sequencing
- motivation and potential for research within the field
- professional and personal skills for completing the doctoral degree within the timeframe
- ability to work independently and in a team, be innovative and creative
- ability to work structured and handle a heavy workload
- good command of both oral and written English

Requirements for competence in English

A good proficiency in English is required for anyone attending the PhD program. International applicants must document this with a valid test certificate from one of the following tests:

- TOEFL - Test of English as a Foreign Language, Internet-Based Test (IBT). Minimum result: 90
- IELTS - International English Language Testing Service. Minimum result: 6.5
- Certificate in Advanced English (CAE) or Certificate of Proficiency in English (CPE) from the University of Cambridge
- PTE Academic - Pearson Test of English Academic. Minimum result: 62

The following applicants are exempt from the above requirements:

- Applicants with one year of completed university studies in Australia, Canada, Ireland, New Zealand, United Kingdom, USA
- Applicants with an International Baccalaureate (IB) diploma
- Applicants with a completed bachelor's and / or master's degrees taught in English in a EU/EEA country
- Applicants who are exempt based on NOKUT's [GSU list](#)

We offer

- a PhD education in a large, exciting and societally important organisation
- an ambitious work community which is developing rapidly. We strive to include employees at all levels in strategic decisions and promote an informal atmosphere with a flat organisational structure.
- salary in accordance with the State Salary Scale, l.pl 17.515, code 1017, NOK 532 200 gross per year with salary development according to seniority in the position. From the salary, 2% is deducted as a contribution to the Norwegian Public Service Pension Fund.
- automatic membership in the [Norwegian Public Service Pension Fund](#), which provides favourable insurance- and retirement benefits
- favourable membership terms at a gym and at the [SIS sports club](#) at campus
- employment with an Inclusive Workplace organisation which is committed to reducing sick leave, increasing the proportion of employees with reduced working capacity, and increasing the number of professionally active seniors
- ["Hjem-jobb-hjem"](#) discounted public transport to and from work
- as an employee in Norway, you will have access to an optimal health service, as well as good pensions, generous maternity/paternity leave, and a competitive salary. Nursery places are guaranteed and reasonably priced
- relocation programme
- [language courses](#): On this page you can see which language courses you may be entitled to (look up "language courses" under employment conditions)

Diversity

University of Stavanger values independence, involvement and innovation. Diversity is respected and considered a resource in our work and learning environment. Universal design characterises physical and digital learning environments, and we strive to provide reasonable

adjustments for employees with disabilities.

You are encouraged to apply regardless of gender, disability or cultural background.

The university aims to recruit more women within the subject area. If several applicants are considered to have equal qualifications, female applicants will be given priority.

Contact information

More information on the position can be obtained from Professor Mark van der Giezen, tel.: +47 5183 4493, e-mail: mark.vandergiezen@uis.no or Dr Rune Stensvold, tel.: +45 3268 8224, e-mail: run@ssi.dk.

Information about the appointment procedure can be obtained from HR advisor Rosa Andrade, tel: +47 5183 1191, e-mail: rekruttering@uis.no.

Application

To apply for this position please follow the link "Apply for this job". Your application letter, relevant education and work experience as well as language skills must be registered here.

The following documents must be uploaded as attachments to your application:

- cover letter showing your motivation and interest in the project, and the relevance of your background and experience. The cover letter will be included in the application assessment.
- CV with a full summary of your education and experience
- References, certificates/diplomas and other documentation that you consider relevant
- Diploma Supplement or similar and a confirmed conversion scale if this is required
- Documentation on competence in the English language if this is required
- List of publications or other relevant research work

Applications are evaluated based on the information available in Jobbnorge at the application deadline. You should ensure that your application shows clearly how your skills and experience meet the criteria which are set out above and that you have attached the necessary documentation.

The documentation must be available in either a Scandinavian language or in English. If the total size of the attachments exceeds 30 MB, they must be compressed before upload.

Please note that information on applicants may be published even if the applicant has requested not to be included in the official list of applicants - see [Section 25 of the Freedom of Information Act](#). If your request is not granted, you will be notified.

UiS only considers applications and attachments registered in Jobbnorge.

General information

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Control of the Export of Strategic Goods, Services and Technology. If your application is considered to be in conflict with the criteria in the latter legislation, it will be rejected without further assessment.

Employment as PhD Fellow is regulated in "[Regulations concerning terms and conditions of employment for the posts of post-doctoral research fellow and research fellow, research assistant and resident](#)".

Your qualifications for the position, based on documentation registered in Jobbnorge, will be assessed by an internal expert committee. Based on the committee's statement, relevant applicants will be invited to an interview before any recommendations are made. References will also be obtained for relevant candidates. [More about the hiring process on our website.](#)

The appointee will be based at the University of Stavanger, with the exception of a stay abroad at a relevant centre of research.

It is a prerequisite that you have a residence which enables you to be present at/available to the academic community during ordinary working hours.

The position has been announced in both Norwegian and English. In the case of differences of meaning between the texts, the English text takes precedence.

UiS - challenge the well-known and explore the unknown

The University of Stavanger (UiS) has about 12 000 students and 2 000 employees. The university has high ambitions. We strive to have an innovative and international profile, and be a driving force in knowledge development and in the process of societal change. Our common direction is driven by consideration for green and sustainable change and equitable social development, through new ways of managing natural resources and facilitating better cities and local communities. Energy, health and welfare, learning for life are our focus areas.

In constant collaboration and dialogue with our surroundings, regionally, nationally and internationally, we enjoy an open and creative climate for education, research, innovation, dissemination and museum activities. Academic life at the University of Stavanger is organised into six faculties comprising various departments/schools and National Research Centres, as well as the Museum of Archaeology. We are a member of the European Consortium of Innovative Universities. The university is located in the most attractive region in the country with more than 300,000 inhabitants. The Stavanger region has a dynamic labour market and exciting cultural and leisure activities.

Together with our staff and students we will challenge the well-known and explore the unknown.

The Faculty of Science and Technology offers study programs at bachelor, master and doctoral level. The faculty has established close cooperation on research with NORCE (Norwegian Research Centre AS) and the regional industry. A number of master's and doctoral theses are made in collaboration with the industry. The faculty has established research collaborations with universities in the US and Europe, and has developed several academic environments that are at the forefront internationally. The faculty has about 2,800 students and approximately 500 employees at the Department of Electrical Engineering and Computer Science, Department of Structural Engineering and Materials Science, Department of Mathematics and Physics, Department of Energy and Petroleum Engineering, Department of Energy Resources and the Department of Safety, Economics and Planning.

The Department of Chemistry, Bioscience and Environmental Technology offers study programs at all levels within the areas Biological Chemistry, Chemistry and Environment. The department is responsible for basic tuition in chemistry at the faculty. There are currently about 60 employees including doctoral and postdoctoral fellows, and 230 students at the department.

Additional information

Place of service:

Ullandhaug 4021 Stavanger (Stavanger Municipality)