



HEILSUFRØÐILIGA
STARVSSTOVAN

Faroese Food and Veterinary Authority

PhD fellowship in RASOPTA at the Faroese Food and Veterinary Authority

A 3-year PhD fellowship is available at the National Reference Laboratory for Fish and Animal Diseases (NRL) at the Faroese Food and Veterinary Authority (FFVA), Tórshavn, Faroe Islands, with an expected start January 1st 2022.

The fellowship is funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 956481.

About the RASOPTA consortium

The RASOPTA consortium consists of enthusiastic academic researchers and innovative non-academic partners, which together will train a new generation of scientists with expertise in sustainable and healthy fish production with minimum water consumption. Production of fish in recirculated aquaculture systems (RAS) requires experiences from several scientific disciplines, but there is need to bridge existing knowledge gaps between these disciplines to ensure a high water quality, healthy and non-stressed fish, and a supreme consumer quality of the fish. Therefore, in RASOPTA state-of-the-art training in important disciplines within RAS technology will be provided by 10 universities and research institutes and 8 non-academic partners in 8 countries. Primary goals of the training are to improve microbial processes to maintain a high water quality, to identify flavour compounds that may affect consumer preference for fish from RAS, and to ensure an optimum health and welfare of the fish. The research also aims at developing a DNA-based chip for early warning of quality and health of the fish. To reach the interdisciplinary goals in RASOPTA, the consortium will train 12 Early Stage Researchers (ESRs) in disciplines ranging from chemistry, microbiology, and molecular biology, to physiology and pathology of fish.

About the PhD project – Biosecurity considerations in Atlantic salmon RAS

Together with four other Early Stage Researchers (to be recruited by Universitat Autònoma de Barcelona, UAB; University of Copenhagen, UCPH; Veterinary Medical Research Institute in Hungary, ATK; and the Technical University of Denmark, DTU), the candidate will contribute to the implementation of RASOPTA's work package three which focuses on controlling the abundance of pathogens in RAS. The candidate will identify major pathogen entry points in salmon RAS by molecular screening of air, water and biological material. NGS methods will be developed to identify transmission pathways and evaluate the risk of introduced pathogens evolving from low to highly pathogenic strains. By conducting longitudinal studies and screening archived material at FFVA the candidate will evaluate existing approaches for controlling pathogens and, ultimately, contribute knowledge to optimized biosecurity protocols for salmon RAS production.

Together with results from the other projects in work package three (UAB will use omics technologies as well as stress and behavioural indicators to evaluate the influence of RAS features on fish welfare, UCPH will use molecular tools to identify pathogenic microorganisms and evaluate the risk of disease development in rainbow trout and zebrafish RAS and ATK will characterize external pathogenic and commensal parasites in RAS), findings from FFVA will contribute to a novel, rapid and cost-effective state-of-the-art Fluidigm PCR chip (developed by DTU) for fast profiling of vira, microbes, protozoa and welfare indicators in RAS.

Mobility within the RASOPTA European Training Network is of high importance and the candidate is expected to spend one month at SMJ Consulting Engineers, one month at Hiddenfjord, two weeks at UCPH and two weeks at DTU.

Enrolment is expected at the University of Copenhagen where the graduate program requires the student to obtain 30 ECTS points during the three-year period in order to graduate.

Eligibility criteria

- The researcher must not have resided or carried out his/her main activity (work, studies, etc.) in the country of his/her host organization for more than 12 months in the 3 years immediately prior to his/her recruitment - unless as part of a procedure for obtaining refugee status under the Geneva Convention¹.
- The researcher must be Early Stage Researcher (ESR): at time of recruitment he/she must be in the first 4 years (full-time equivalent research experience)² of his/her research careers and must not have been awarded a doctoral degree.

Further requirements

We are looking for a dedicated and skilled individual that fits the following criteria:

Qualifications: Master's degree, preferably within the field of molecular biology, bioinformatics, biotechnology or similar. To be considered for the position, it is a condition that your Master's degree is considered equivalent to a Danish Master's degree.

Experience: The candidate should be experienced in the molecular biology techniques applied by FFVA, as stated below. Bioinformatic programming skills are meriting but not a requirement.

Knowledge and skills: Dedicated and able to organise research within the project timetable. In addition, the right candidate is flexible, co-operative, willing to learn new skills and to travel and go on secondments. Lastly, the candidate should hold a driver's license and be fluent in spoken and written English.

¹ 1951 Refugee Convention and the 1967 Protocol

² This is measured from the date when a researcher obtained the degree which would formally entitle him or her to embark on a doctorate, either in the country in which the degree was obtained or in the country in which the researcher is recruited, irrespective of whether or not a doctorate is or was ever envisaged.

About the Faroese Food and Veterinary Authority (FFVA)

The Faroese Food and Veterinary Authority (FFVA) is established under the Ministry of Foreign Affairs and Trade to carry out statutory control and laboratory checks within the food and veterinary fields and to undertake research and development relevant to the statutory tasks. FFVA consists of 55 employees and is organized into supervision departments, research and development and a laboratory consisting of the NRL as well as a chemical and a microbiological department. The laboratory is accredited according to the DS/EN ISO 17025 standard (www.danak.dk).

At the NRL, we make use of state-of-the-art molecular biology techniques such as PCR, real-time PCR, Sanger sequencing, Next Generation Sequencing (Illumina and Nanopore platforms) and bioinformatics for diagnostic and research purposes, traditionally in the area of fish and animal diseases, but lately also as part of the National COVID-19 testing scheme. In addition to collaboration with many national and international research institutes the NRL has a close cooperation with all Atlantic salmon producers in the Faroe Islands.

FFVA wishes our staff to reflect the diversity of society and thus welcomes applications from all qualified candidates regardless of gender and personal background.

Terms of employment

Employment will start January 1st 2022.

The terms of employment and salary are in accordance with National Rules and Regulations and stated in an authorised Employment Contract and according to the rules and regulations laid down by the European Union's Horizon 2020 Marie Skłodowska-Curie Action European Training Network.

More information

More information about FFVA can be found at www.hfs.fo. For further information about the position, applicants may contact Debes Hammershaimb Christiansen (phone: +298-556486; email: debesc@hfs.fo) or Petra Elisabeth Petersen (phone +298-556485; email: pep@hfs.fo).

Application

The application must include a cover letter, a curriculum vitae, diplomas, and possible letters of recommendation.

The closing date for application is September 15th 2021. Candidates must submit their application via email to hfs@hfs.fo, subject line marked "RASOPTA".