PhD position in Ecotoxicology

NIVA, Ecotoxicology

Application d...	**31/01/2020**	Full-time/par...	**Full-time**
Employer:	**NIVA**	Employment ...	**Temporary**
Town/city:	**Oslo**	Percentage o...	**100**
Title:	**PhD position in Ecotoxicology**	Webcruiter ID:	**4172219054**
		Positions:	**1**
		Social sharing :	

Duties and responsibilities

The Norwegian Institute for Water Research (NIVA) and the EU Marie Skłodowska-Curie Innovative Training Network (MSCA-ITN) project “Best chemical risk assessment professionals for maximum Ecosystem Services benefit (PRORISK)” offer an Early Stage Researcher (ESR - PhD Student) position with focus on “Linking chemical perturbations to developmental disorders in crustaceans”.

We are looking for a highly motivated Early Stage Researcher (PhD candidate) with an excellent academic background in ecotoxicology and environmental sciences who seeks an opportunity to conduct research in an international inspiring and collaborative network.

The duration of the PhD contract is 3 years.

PRORISK (www.prorisk-itn.eu) is a European Training Network funded by the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 859891. The consortium comprises of 18 universities, research institutions, enterprises and partner organisations in 9 European countries and Canada creating a novel platform for training a network of Early Stage Researchers (ESRs) in the field of advanced Environmental Risk Assessment (ERA). Research and training provided through PhD study, PRORISK training programme and secondments in international multidisciplinary intersectoral teams in academia, industry and regulatory bodies will enable ESRs to address exposure, ecotoxicology, ecosystem services, as well as assessment and modelling of risks and socio-economic impacts. The ESRs within PRORISK will gain synthetic skills allowing them to develop and implement innovative ERA concepts and tools to link the effects of chemicals at different levels of biological organization to ecosystem services and to determine the socio-economic values of related environmental impacts. ERA is nowadays rapidly changing from relying on simplified descriptive laboratory tests to incorporating mechanistic, ecological and socio-economic process information. This revolutionizes the risk assessment making it increasingly comprehensive, realistic and relevant, also under consideration of other modulating effects such as non-chemical stressors or impact of global change. ESRs in PRORISK will gain the abilities to address this major challenge in risk assessment paradigm shift. They will work as future experts at the interface between the key concepts of sustainable protection of ecosystems and health - i.e. Adverse Outcome Pathways (AOPs) and ecosystem services. Young researchers within PRORISK will develop and integrate mechanistic understanding, in-depth analyses of chemical-biological interactions and exposure, and functioning of ecosystems. They will be able to tackle increasingly complex data. They also will be able to critically evaluate robustness of risk predictions and assess the socio-economic costs of environmental damage. PRORISK will allow the ESRs to develop the critical capability to synthesize processes across different levels of biological organization and different mechanistic, ecosystem and socio-economical concepts. This will empower ESRs to shape future regulatory missions protecting the ecosystems services and assuring thus sustainability and prosperity of ecosystem services.

Tasks
The main tasks of the ESR (ESR-5) are to:

- Establish and evaluate AOPs related to chemical stressors causing developmental disorders and death in freshwater crustaceans
- To implement a suite of bioassays and effect based tools to characterize the AOP and establish quantitative effect relationships along the AOP continuum (qAOP) in the crustacean model Daphnia magna
- To establish computational solutions to support extrapolation of AOP and qAOP data to hazard and risk assessment

The ESR will be part of NIVA's existing Ecotoxicology and Risk Assessment research group and will closely work with researchers, post docs and master students in the group as well as with national and international collaborators within the PRORISK project consortium.

The Section of Ecotoxicology and Risk Assessment at Norwegian Institute for Water Research (https://www.niva.no/en/research/ecotoxicology_and_risk_assessment) performs research in ecotoxicology, microbiology, cell biology, biomarkers, effects-directed analysis as well as chemical and environmental risk assessment. Research into the hazard and risk assessment of harmful substances is one focus area of the section.

The candidate will work at NIVA while also participating in a 3-year full-time PhD program at Norwegian University of Life Sciences (NMBU, Ås, Norway, https://www.nmbu.no/en/studies/study-options/phd/ecology-natural-resource-management) and take part in research stays (secondments) in other PRORISK partner laboratories.

Qualifications
The qualified candidate should hold a master's degree (or equivalent) in (eco)toxicology, molecular/cell biology, biochemistry or similar fields. Proficiency in oral and written English is a prerequisite. Experience with computational approaches within bioinformatics, AOP and/or qAOP development, as well as hazard and risk assessment are considered advantageous.

Eligibility Criteria for ESR positions:

- Applicants must not have resided or carried out their main activity in Norway for more than 12 months in the 3 years immediately prior to their recruitment.
- Applicants must not have been awarded a doctoral degree and must not have more than 4 years (full time equivalent) research experience at the date of their recruitment. This is counted from the date they obtain the degree that would let them start work on a doctorate.
- Average grade on MSc degree and courses of B or better.

Experience
The candidate should have relevant experience in experimental (eco)toxicology, especially ecotoxicity testing with aquatic invertebrates. Experience and knowledge in invertebrate endocrinology, physiology and genomics, and skills such as in vivo bioassays, biostatistics and bioinformatics, and programming are considered advantageous.

Personality
The successful candidate needs to be proactive, independent, creative and cooperative, and wishes to work in a broad scientific group in an international research environment. The ability to conduct good teamwork and share resources with other researchers will be important.

NIVA also offers

- Challenging work tasks in a nationally leading research institution.
- NIVA is member of CIENS, the centre for Environmental and Social Research, which is a strategic research collaboration between independent research institutes and the Universities in Norway
- Good pension and insurance policies
- A good working environment

Location

Gaustadalléen 21, 0349 Oslo
Norway

Contacts

Knut Erik Tollefsen
Senior Reserach Scientist
+47 922 18 466

The Norwegian Institute for Water Research (NIVA) is Norway's leading research institute for the aquatic environment, working across a wide range of environmental, climate and resource issues. Our high quality research is characterised by its relevance, and its holistic and interdisciplinary approach, combining research with monitoring, assessment, problem solving and consulting. The NIVA group has approximately 400 employees and is headquartered in Oslo, with branches in Bergen, Grimstad, Hamar and Copenhagen, together with a marine research station in Drøbak, and subsidiaries in Tromsø, Chile and China