Network for Cross-disciplinary assessment of Endocrine Disrupting compounds
https://www.nexed.eu

Doctoral candidate 2:

Improved NAM-Based Testing of ED-Mediated Reproductive Toxicity

Host Institution	Technical University of Denmark, Denmark
PhD enrolment	National Food Institute, Technical University of Denmark
Lead Supervisor	Prof. Terje Svingen, Molecular & Reproductive Toxicology
Subject area	risk assessment, AOP, reproduction, mammalian, human health

About this vacancy

NeXED is a Marie Skłodowska-Curie Actions (MSCA) Doctoral Network, funded by the European Union. NeXED will in total recruit 15 enthusiastic, talented and driven Doctoral Candidates (DCs) who are highly motivated to be part of a new generation of cross-disciplinary toxicologists specialised in using harmonised approaches in a One Health framework to develop and support the implementation of innovations in the field of endocrine disruptor assessment. This vacancy is one of those 15 opportunities. Make sure to also read the general eligibility and selection criteria!

Host institution and research group

The DTU National Food Institute: DTU Food conducts research into and disseminates - through advice, innovation and teaching - sustainable and value-creating solutions in the area of food and health for the benefit of society. The institute's vision is to make a difference by generating future prosperity through research into food and health. The institute prevents disease and promotes health, develops new and better food products for a growing population and creates sustainable technological solutions. The institute's tasks are carried out in a unique interdisciplinary cooperation in e.g. nutrition, chemistry, toxicology, microbiology, epidemiology, modelling and technology.

This DC position will be hosted by the **Research Group for Molecular & Reproductive Toxicology** (https://www.food.dtu.dk/english/research/molecular-and-reproductive-toxicology). The research group, headed by Prof. Svingen, studies how environmental chemicals can disrupt normal development and cause disease. The group has a particular focus on endocrine disruptors and how exposure to these can cause reproductive or cognitive disorders. The overarching goal is to safeguard human health by improving chemical safety testing and risk assessment.

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The research project

We are seeking a talented and motivated PhD student to join an exciting research project aimed at improving the predictability of testing frameworks for endocrine disruptors (EDs). This interdisciplinary project focuses on advancing our understanding of ED-mediated adverse effects by also addressing cross-axis activity and enhancing cross-species extrapolation to better identify and assess EDs. Anchored in the Adverse Outcome Pathway (AOP) framework, the project will contribute to advancing chemical safety assessment within a one-health context.

The successful candidate will work on expanding AOP networks for endocrine-mediated reproductive toxicity, identifying key events and key event relationships with a focus on cross-species linking. The research will involve laboratory experiments using mammalian (e.g. rat) and non-mammalian models (e.g. zebrafish) to investigate mechanisms of endocrine disruption, including cross-axis interactions such as thyroid and retinoic acid signalling. Additionally, the project includes applying read-across approaches to fill critical data gaps, building on mechanistic insights and enhancing grouping strategies for EDs.

This position provides an outstanding opportunity to conduct cutting-edge research with real-world applications in regulatory toxicology. The project includes close collaboration with leading institutions, offering a unique platform for interdisciplinary training, international research exchanges, and hands-on experience in experimental and computational methods. It is designed to train the next generation of risk assessors, with planned activities focusing heavily on learning and applying regulatory principles, from hazard identification to regulatory decision-making.

Your tasks

You will

- Enrol in **DTU Food's doctoral School** and comply with its doctoral training requirements
- Write **project reports** on a regular basis and **publish** high-quality research results related to the research project in international conference proceedings and peer-reviewed scientific journals
- **Participate actively** in the NeXED training, dissemination, communication and exploitation activities
- Work actively on the preparation and defence of a **doctoral thesis** in the field of reproductive toxicology

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- Engage with and further support a limited number of teaching/departmental activities for the research group of Molecular & Reproductive Toxicology and/or DTU

Secondments

The following research stays are planned:

- Interdisciplinary secondment: Anna Beronius (~2 months) at Karolinska Institute (KI, Sweden)
- Interdisciplinary secondment: Elvis Genbo Xu (~1 month) at University of Southern Denmark (SDU, Denmark)
- Interdisciplinary secondment: Lisa Baumann (~1 month) at Vrije University (VU, The Netherlands)
- Intersectoral secondment: Knud L. Pedersen (~2 months) at The Danish Environmental Protection Agency (DK-EPA, Denmark)

What we offer

- The selected candidate will be employed full-time by DTU Food on the MSCA-Doctoral Network project for a period of **36 months**
- The Doctoral candidate appointment will be based on the collective agreement with the Danish Confederation of Professional Associations, with a **competitive remuneration** based on the MSCA allowances in line with the MSCA WP 2023-2025
- The gross monthly amount at DTU are based on national, collective agreements
- Funding is available for technical and personal skills training and participation in international research events
- The **expected start date** is between August-October 2025. Last-year master students expected to graduate by this time are encouraged to already apply
- Read more about working at DTU Food here

Specific requirements

In addition to the general eligibility and selection criteria of the NeXED Doctoral Network,

- The scholarship is subject to academic approval according to DTU's enrolment policy. For information about DTU's enrolment requirements and the general planning of the Ph.D. study programme, please see DTU's rules for the Ph.D. education, https://www.dtu.dk/english/education/phd/rules

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Application procedure

Applications must be submitted through the NeXED job application platform (https://www.uantwerpen.be/en/projects/nexed/job-openings/apply/).

Deadline for applications: April 21, 2025, 23:59 CET. More information about the application procedure for NeXED PhD positions can be found here.

Contact

For additional information about this vacancy, please contact Terje Svingen, tesv@food.dtu.dk

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