Ghent University is offering a Ph D fellowship to join our team in a new 4-year environmental transcriptomics project:

*Towards biology-based lab-to-field extrapolation in ecotoxicology: developing a mechanistic understanding of the combined impact of chemical pollution and climate change across different organisms and habitats*

Research groups and researchers involved:

Environmental Toxicology unit (GhEnToxLab), [www.ecotox.ugent.be](http://www.ecotox.ugent.be)

(prof. Karel De Schamphelaere, prof. Colin Janssen & Dr. Jana Asselman)

Marine Biology Research Group (MarBiol), [www.marinebiology.ugent.be](http://www.marinebiology.ugent.be)

(prof. Marleen De Troch)

Laboratory of Pharmaceutical Biotechnology, <http://www.ugent.be/fw/pharmaceutics/en/research/pharmbiotech> (prof. Filip Van Nieuwerburg)

Short project description:

Within this project, we seek to understand combined effects of chemical pollution and climate change in aquatic ecosystems. The central aim of this project is to develop adverse outcome pathway frameworks that can contribute to mechanistic understanding and biology-based extrapolation across species and habitats. The project focuses on a holistic approach and will involve next generation mRNA sequencing and network modeling to develop adverse outcome pathways. More specifically, the research will, for instance, investigate combined effects of the priority pollutant nickel (as a model chemical stressor) and hypoxia (low oxygen stress, as a model climate-change related stressor) in aquatic ecosystems as a model system of study. In order to enable drawing more generalized conclusions from our work, we will work with both marine (copepods) and freshwater (*Daphnia* and *Hyalella*) species and also with pelagic and benthic species. Ultimately, this research will contribute to a system that will allow biology-based extrapolation of ecotoxicity data to an ecological reality context and to identify species that are vulnerable to combined stressor effects, allowing appropriate measures to be taken before adverse effects on ecosystems actually occur.

The project offers a unique multidisciplinary perspective by combining research expertise in environmental science, marine and freshwater ecosystems and next generation sequencing available within the three research groups. The PhD Student will be involved in lab experiments and computational analysis. He or she will also actively participate in research seminars, workshops and conferences to present the research to a broad audience. Short or long-term research visits to international collaborating research groups are also planned in the project.

Your profile:

We are looking for a highly motivated researcher with lots of scientific curiosity, a passion for science and an analytical mind.

Candidates should have received at least four years of university education in a discipline relevant to the project (B. Sc. or M. Sc. degree obtained before 1 October 2015). A strong educational record in molecular biology, genome biology, biotechnology or bioinformatics is an asset. Strong skills in programming and a high interest in ‘big data analysis’ are prerequisites.

Candidates should also have a good command of English.

How to apply:

Please send all of the following information via e-mail to Karel.Deschamphelaere@ugent.be and Jana.asselman@ugent.be:

- a brief (maximum 1-page) application letter in which you explain your motivation and in which you try to convince us of your suitability for this project (e.g., by self-evaluating your educational background and skills against the requested profile and the project description).

- curriculum vitae

- copy of relevant university diploma’s and proof of study results (e.g. score sheets) if (already) available

When to apply:

Candidates need to apply before August 3th, 2015. Candidates with an interesting profile and a convincing application letter will be invited for an interview (face to face or video call). Interviews will be held between August 10th and 21st August. A final decision on the selected candidate will be made by August 28th. The project can start as soon as October 1st, 2015.