



JOB VACANCY

Ghent University, Belgium

PhD Fellowship (4 years)

Bioavailability of silver for freshwater organisms (Ag-BLM project)

Silver (Ag) is a widely used **antimicrobial compound** with substantial releases to surface water, that can be toxic to aquatic organisms in the nanogram per liter range. For this reason, the European Commission has recently listed Ag as a **priority pollutant** under the Water Framework Directive, and proposed an environmental quality standard (EQS) of 10 ng/L. As for other metals, it is known that certain water quality variables such as pH, and dissolved organic carbon (DOC) concentration, can affect **bioavailability** and toxicity by more than 100-fold. However, there is a lack of experimental data and models to predict chronic silver toxicity.

In this project you will combine **experimental work** (ecotoxicity tests, metal speciation measurements) with the **development of bioavailability models** (e.g., biotic ligand model, BLM). The ultimate aim is to have a toolbox with validated models that can **predict chronic toxicity of silver** to algae, invertebrates and fish, and which can be used to derive bioavailability-based EQS values.

The project is funded by the European Precious Metals Federation (EPMF). The project is in collaboration with Arche-consulting (BE, Dr. Charlotte Nys) and the Centre of Ecology and Hydrology (UK, Dr. Steve Lofts).

This is a **4-year PhD project for a doctoral candidate**.

Application requirements and further details can be found here:

<https://www.ugent.be/en/work/scientific/phd-student-32>

More details can be requested by contacting the project-leader, prof. Karel De Schampelaere (Karel.Deschampelaere@UGent.be).