**Abstract ILEE Research Day**

Mahaut Beghin

Title : Do engineered nanoparticles present ecotoxicological risks for aquatic organisms?

Abstract:

The number of products containing engineered nanoparticles has grown exponentially during the last decade. Their unique properties which make them so attractive for the manufacture of industrial, medical and cosmetic products also may represent a risk for the environment. Mammalian studies have raised concerns about their fate for human health. However, information on their toxicity for freshwater organisms are still lacking. In order to fill this gap of knowledge, we will investigate the toxicity of two metal oxide nanoparticles, the ZnO and the TiO2 for a freshwater model fish species, the rainbow trout. By combining *in vitro* and *in vivo* approaches we will get a greater insight of their toxicity mechanisms at the cellular and organism levels with a specific focus on their impact on the immune system.