

# ECOTOX

*Ecotoxicology of chemical contaminants in inland waters in the context of global change*



## **Financial contribution:**

Academic and institutional consortium: 48%

Partners: 38%

ANR (French National Research Agency) 24%

## **Partners:**

Total E&P Research and development SAS

RIO Tinto

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Séverine Le Faucheur is an aquatic biogeochemist and ecotoxicologist specialized in metal-microorganisms. She received her PhD from ETH Zurich (Switzerland) in 2005 and was a postdoctoral fellow at INRS-ETE (Canada) between 2006-2011. Before arriving in September 2019 at UPPA, she was a senior researcher and teaching assistant at the University of Geneva (Switzerland). Besides being the Ecotox Chair holder, she currently also is an adjunct professor at INRS-ETE. With her positions as European Co-chair of the SETAC Global Mercury Working Group, as committee member of the SETAC Metals Interest Group



and as editor for Environmental Science and Pollution Research journal (Springer), Séverine is very active within the scientific community.

***Presentation:***

The planet is currently experiencing significant global changes related to human activities which leads to the deterioration of the quality of continental waters. Temporal hydrological variability, the presence of complex mixtures of contaminants in water or the impact of contaminants on the global ecosystem functioning are examples of problematics that have been poorly addressed in environmental risk assessment. The present research partnership Chair, in collaboration with Total and Rio Tinto, focuses on filling these gaps with the development of fundamental knowledge and practical tools to assess water quality. That research is based on the use of artificial rivers located in PERL at Lacq and state-of-the art analytical techniques available at IPREM. Three main themes are examined, i.e., the bioavailability and impacts of contaminant mixture towards aquatic organisms, the use of biominerals as bioindicators of contaminant exposure and the assessment of ecogenomics as biomonitoring tool.