

Canadian researchers set to study impact of nanomaterials on aquatic ecosystems

July 6 2009

A team of Canadian scientists and engineers, led by the University of Alberta and the National Research Council of Canada, will collaborate on a \$3.39 million, three-year study to assess the potential effects of nanoparticles in specific water environments.

"Nanotechnology is a very new and quickly developing field. Governments and regulating agencies around the world are seeking solid scientific data upon which to base their regulatory standards," said Greg Goss, project co-leader and professor of biological sciences, University of Alberta. "This research will allow the nanotechnology industry to proceed with confidence [in the knowledge] that the environmental safety of their products can be properly assessed. In addition, the companies can use the knowledge gained to properly engineer their products with reduced environmental impact."

The research resulting from this study will help regulators understand the interaction of new molecules within our ecosystem, and inform and facilitate the development of sound regulatory policies in this area. The goal is to expedite the safe use of nanotechnology in the future by understanding how to mitigate its impact on the environment.

"NRC brings its extensive expertise in the development of tools and impact assessment methods to the collaboration," said Geoffrey Sunahara, leader of the Applied Ecotoxicology Group at the NRC Biotechnology Research Institute and project co-leader. "This expertise complements the wide-ranging research experience of our academic and

private-sector collaborators."

The research team will also develop new testing techniques specifically designed for assessing the impact of new [nanomaterials](#) because classic [toxicity](#) tests may not be appropriate for some of them. The toxicological data derived from this project will provide an important foundation for a science-based policy on environmental risk assessment of nanoparticles.

The multi-disciplinary team will bring together 19 researchers from the public and private sectors, including leading biologists, chemists, lawyers and engineers from seven universities, three National Research Council institutes, the National Institute for Nanotechnology, Environment Canada, the Government of Alberta, VIVE Nano, Golder Associates and HydroQual Laboratories.

Funding for the project comes from the Natural Sciences and Engineering Research Council of Canada, the National Research Council of Canada, the National Institute for [Nanotechnology](#), Environment Canada and the University of Alberta, and includes in-kind contributions from VIVE Nano, Golder Associates and HydroQual Laboratories.

Source: University of Alberta ([news](#) : [web](#))

Citation: Canadian researchers set to study impact of nanomaterials on aquatic ecosystems (2009, July 6) retrieved 25 April 2024 from <https://phys.org/news/2009-07-canadian-impact-nanomaterials-aquatic-ecosystems.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.