



Oluwafikemi IJI

Home Country
Nigeria

Degree
PhD in Paraclinical Sciences

Expertise
Environmental toxicology

Research Focus
Acid Mine Drainage Contaminants

Host University
University of Pretoria, South Africa

Fellowship Awarded
2012

Oluwafikemi Iji was born in Lagos, Nigeria and was the first in her family to pursue a PhD degree. Her father first stimulated her curiosity and desire to pursue a career in science. She also grew up with a love and admiration for nature.

Oluwafikemi attended the University of Ibadan, located in southwestern Nigeria and the third largest metropolitan area in the country. Here she gained the degree of Doctor of Veterinary Medicine followed by a Master's in Veterinary Pharmacology. Her passion lies in ecosystem health research, which is the use of scientific tools to understand the complex interactions between humans, animals and their natural environments as well as promoting the health, integrity and sustainability of the shared ecosystem.

The current PhD research relates to acid mine drainage (AMD), which is the outflow of acidic water from metal mines, coal mines, and some other areas where the earth has been disturbed. In particular, Oluwafikemi is focusing on efforts to develop cultured cell models for AMD toxicity screening and environmental bio-monitoring, investigating the use of fish gill cell cultures in sensitive in-vitro models that link the bioavailability of pollutants and intrinsic toxicity in target organs. This method aims to provide a new approach to risk assessment for regulatory tests, and an easy and inexpensive approach to allow more environmentally realistic site-specific assessments of water quality. This would be an important component in the management and remediation of AMD-impacted watersheds.

Oluwafikemi hopes to become an international expert in environmental toxicology, environmental cleanup, chemical regulation, and product stewardship. She expects her work to promote the "one health" concept, which encompasses the health and wellbeing of people, animals and the environment.