UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

School of Life Sciences, Pietermaritzburg
UKZN Transdisciplinary Flagship: APACHE
Afrocentric Precision Approach to Control Health Epidemics

Establishment of Zebrafish Models for Human Disease and Toxicology

Postdoctoral scholarships (2 years; R200 000/year)
PhD studentships (3 years; R100 000/year)
available for 2019

Project 1: The prevalence of Type 2 Diabetes is higher in HIV-positive individuals; antiretroviral therapy (ART) may contribute directly to the development of this non-communicable disease (NCD). The project aims to establish a Zebrafish model for Type 2 Diabetes Mellitus (Zang *et al*., 2017) and utilize it to understand the molecular and cellular changes associated with this pathological state and the role that ARTs play in the development of this NCD.

Project 2: Contaminants in aquatic environments pose significant threats to human health and wildlife. Effective environmental management requires monitoring of known pollutants and the detection and impact assessment of contaminants of emerging concern (CEC). In this project, we seek to develop and validate Zebrafish models to a) detect selected CECs, b) determine toxicity and biological effect and c) establish protective levels.

Requirements:

Postdoctoral Scholarship: PhD in Biochemistry / Chemistry (or a closely-related field). Current research activity as evidenced by publications in peer-reviewed journals. Practical expertise in cellular and molecular biology and/or analytical techniques. Prior Zebrafish research experience will be an added advantage

PhD studentship: MSc in Biochemistry / Chemistry (or a closely-related field)

Interested applicants should send their CV and a letter of motivation (max. 500 words) **by 28 February 2019** to Prof Carola Niesler (email: niesler@ukzn.ac.za) and Dr Ray Hewer (hewerr@ukzn.ac.za).

THE PREMIER UNIVERSITY OF AFRICAN SCHOLARSHIP