



Chemical & Physical Sciences

UNIVERSITY OF TORONTO

MISSISSAUGA

Colloquium Seminar Series

Wednesday, November 27, 2024

3:15PM in CC3150

## RECENT ADVANCEMENT IN EXPOSURE ASSESSMENT USING WEARABLE SAMPLERS AND MULTIPLE ANALYTICAL PLATFORMS



featuring

**Joseph Okeme, PhD**

Assistant Professor, Chemistry

**McMaster University**

Environmental pollution is a major risk factor for 1-in-6 deaths worldwide, including 150,000 Canadian deaths and chronic disease burden per year. An urgent barrier to pollution prevention is that we lack easy-to-use tools to characterize exposure to environmental chemicals at the population level. This talk will focus on our innovative contributions to addressing this critical research gap. I will share early results obtained in our lab from using wearable and multiple analytical platforms to comprehensively characterize diverse compounds in personal air and biological samples. These tools can be used to identify key chemicals of concern and susceptible populations to prioritize for exposure prevention, reducing exposure-associated mortality and burden of chronic diseases.

Bio

Joseph Okeme is an Assistant Professor in Chemistry and Chemical Biology and a Scientist at the Occupational Cancer Research Centre, Cancer Care Ontario-Ontario Health (OCRC-OH). He has a BSc in Environmental Toxicology (Abeokuta, Nigeria), an MSc in Instrumental Analytical Sciences (Robert Gordon University, Aberdeen) and a PhD in Physical and Environmental Sciences (University of Toronto). Before moving to this role, he worked as a Postdoctoral Research Associate at Cancer Care Ontario-Ontario Health and a Banting Fellow at the Yale School of Public Health.