Dr. Goodridge Bio

Dr. Lawrence Goodridge is a food microbiologist whose research focuses on the detection, characterization, and control of foodborne pathogens to improve food safety and public health. His work integrates molecular biology, genomics, bioinformatics, and microbiome science to develop innovative approaches for the rapid identification and tracking of bacterial contaminants across the food production chain.

A key area of Dr. Goodridge's research involves the development of portable, field-deployable microbial diagnostic tools that enable rapid on-site assessment of microbial hazards in food and agricultural environments. Dr. Goodridge also applies next-generation sequencing and metagenomics to study microbial communities in food systems, with the aim of understanding how microbial ecology influences food safety, spoilage, and fermentation. His work contributes to the development of data-driven interventions that reduce the burden of foodborne illness and improve traceability in complex food supply networks.

Dr. Goodridge is also a co-lead of the Guelph Wastewater Epidemiology Lab for Public Health (G.WE.L.P.H.), which conducts wastewater surveillance to monitor the circulation of key respiratory viruses, including SARS-CoV-2, influenza, and respiratory syncytial virus (RSV). By analyzing wastewater samples collected from municipal and institutional sources, the lab provides near real-time data that is shared with public health units, and other health care providers to inform timely responses to emerging public health threats. This work supports a growing global movement toward wastewater-based epidemiology as a non-invasive, cost-effective tool for community-level disease surveillance.