

International Conference on Global Infectious Diseases and Clinical Vaccines (ICGDC-2025)

Conference Proceedings

May 08, 2025 - Florida, USA

Infectious Disease Genomic Surveillance to Limit Outbreaks

Rachel Spurbeck

Senior Genomics Research Scientist, Battelle Memorial Institute, USA

Dr. Rachel Spurbeck is a Senior Genomics Research Scientist at Battelle Memorial Institute who leads exposure health efforts in biosurveillance, diagnostics and therapeutics. She initiated the microbial metagenomic sequencing program for the National Ecological Observatory Network, which catalogues the microbial communities from soil and water from 81 sites across the United States. She led wastewater-based epidemiology efforts tracking the COVID-19 pandemic and other pathogens of significance to public health in the state of Ohio and has developed laboratory methods to accurately identify pathogens in environmental and clinical samples. Methods she has developed enable virome sequencing in vector organisms to identify vector-borne diseases in endemic and invasive mosquitoes. She is currently the genomics lead for a program identifying pathogens in permafrost samples from Alaska and comparing the organisms identified to soil, ground and surface water samples.