Keynote

Susan Kutz, DVM, PhD

Susan Kutz is a veterinary parasitologist. She was a founding member of the new Faculty of Veterinary Medicine at the University of Calgary and is a Professor in the Department of Ecosystem and Public Health. She also is the Director of the Alberta Node of the Canadian Cooperative Wildlife Health Centre and a member of the Terrestrial Mammals Committee on COSEWIC (Committee on the Status of Endangered Wildlife in Canada). Kutz's research interests include understanding the impacts of climate and landscape change on host-parasite interactions in the Arctic. She has research programs investigating parasite biodiversity, invasion processes, and the impacts of parasites on host populations, food safety and food security. She has extensive international collaborations around the Arctic and has lead a circumarctic caribou and reindeer health assessment program. In the Arctic, Kutz works closely with aboriginal subsistence hunters to monitor wildlife health and has maintained a popular NSERC funded outreach program in the Canadian North since 2004.

Spotlight Speakers

Tiffany Fitzpatrick, PhD, MPH

Tiffany Fitzpatrick is a Scientist at Public Health Ontario, Adjunct Scientist at Institute for Clinical Evaluative Sciences, and Assistant Professor in the Division of Epidemiology and Institute for Health Policy, Management and Evaluation at U of T's Dalla Lana School of Public Health. She is also a member of U of T's Centre for Vaccine Preventable Diseases and the Canadian Immunization Research Network (CIRN), and serves as an Executive Board Member for the Canadian Association for Immunization Research, Evaluation, and Education (CAIRE). Fitzpatrick's research primarily focuses on the use of modelling and administrative data to provide policy-relevant epidemiological evidence to support the equitable prevention of pediatric respiratory syncytial virus (RSV) disease.

Sarah Haines, PhD

Sarah R. Haines is an Assistant Professor in the Department of Civil and Mineral Engineering at the University of Toronto, the Principal Investigator of the Indoor Microbiology and Environmental Exposures (IMEE) Lab and founding member of the Hub for Advancing Buildings. She is an interdisciplinary researcher working at the intersection of building science, environmental engineering, and microbiology to investigate how indoor environments shape human health. Her research focuses on maintaining healthy and sustainable indoor environments through detection, surveillance, and characterization of indoor biological exposures (bacteria, fungi, viruses, byproducts), integration of community-based participatory research and molecular techniques.

Spotlight Speakers

Alison Hill, PhD, MPH

Alison Hill is an Assistant Professor in the Department of Ecology & Evolutionary Biology at the University of Toronto. Her research group develops mathematical models and computational tools to help understand, predict, and treat infectious diseases. This includes infectious agents like HIV, SARS-CoV-2, RSV, antibiotic-resistant infections as well as bed bugs infestations and cancer-causing viruses. Hill is particularly interested in the role of pathogen evolution in disease pathogenesis and escape from therapeutics, and works to characterize anti-viral immune responses and develop novel immunotherapeutics.

Dylan Kain, MD, PhD

Dylan Kain is a clinician-scientist and infectious disease physician at Toronto Western Hospital in the University Health Network. He is also an Assistant Professor of Medicine at U of T's Temerty Faculty of Medicine. Kain's research focuses on understanding immune responses to Mycobacterium tuberculosis (TB) and applying these insights to the development of improved vaccines and immunotherapies. His laboratory studies human T cell responses to tuberculosis with a particular focus on unconventional T cell populations and early immune development with the aim of informing future vaccine development. By integrating human cohort studies, single-cell genomics and T cell receptor analysis, Kain works to understand how unconventional T cells contribute to protection from TB.

Matthew McCallum, PhD

Matthew McCallum is an assistant professor in the department of laboratory medicine and pathobiology at U of T and is a structural virologist who studies how viruses enter human cells and how this process can be blocked to prevent infection. Specifically, McCallum works on understanding herpesviruses such as Epstein-Barr virus (EBV) and herpes simplex viruses, which cause life-long infections in humans and have been implicated in cancer, autoimmune and neurodegenerative diseases. He uses cryo-electron microscopy to study the dynamic structural rearrangements of viral glycoproteins during infection of a cell to develop structure-guided vaccine designs and next-generation antiviral strategies.

University of Toronto's 2026 Microbiology & Infectious Disease Research Days are organized by the Emerging and Pandemic Infections Consortium in collaboration with the Division of Infectious Diseases at U of T's Department of Medicine, Division of Infectious Diseases at SickKids, U of T's postgraduate medical and clinical microbiology programs and the Institute of Health Emergencies & Pandemics at U of T's Dalla Lana School of Public Health.

U of T's Microbiology & Infectious Disease Research Days are generously supported by bioMérieux Inc.

UNIVERSITY OF TORONTO | EPIC Emerging & Pandemic Infections Consortium