

# 2026

## University of Toronto Microbiology & Infectious Disease Research Days

### AGENDA

## Main Programming Day, May 28

Room 3154, Medical Sciences  
Building, 1 King's College Circle

#### Presented by



UNIVERSITY OF  
TORONTO



**EPIC**

Emerging & Pandemic  
Infections Consortium

#### In collaboration with

U of T's Division of Infectious Diseases, Department of Medicine, and postgraduate medical and clinical microbiology program, the Division of Infectious Diseases at The Hospital for Sick Children and the Institute of Health Emergencies and Pandemics.

#### With support from



EPIC is a collaborative initiative between the University of Toronto and five hospital partners.



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## Abstract Booklet

May 27<sup>th</sup> - 28<sup>th</sup>, 2026

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**SickKids**



Sinai  
Health

Lunenfeld-Tanenbaum  
Research Institute



**Sunnybrook**  
HEALTH SCIENCES CENTRE



UNITY HEALTH  
TORONTO



**UHN** Canada's  
Hospital

Supported by **bioMérieux Canada**



## **A Systematic Review of Targeted Therapies for Helminthic Eosinophilic Meningitis: Implications for Refugee, Migrant, and Returning Traveller Populations**

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**Background:** Helminthic eosinophilic meningitis (HEM) is a parasitic infection of the central nervous system, mainly caused by *Angiostrongylus cantonensis*, *Gnathostoma spinigerum*, and *Baylisascaris procyonis*. Refugees, migrants, and travellers from endemic areas are at increased risk due to contaminated food and water and may experience delays in diagnosis and treatment, leading to severe complications. There is currently no standardized treatment for HEM, resulting in varying outcomes. This systematic review assesses the effectiveness of targeted therapies for HEM.

**Methodology:** Following PRISMA guidelines, we conducted a systematic search of relevant databases for studies on HEM treatment outcomes. We assessed the risk of bias and evidence quality and then performed narrative and subgroup data analyses to evaluate treatment effectiveness.

**Results:** Preliminary findings indicate that the best outcomes result from a multimodal treatment combining supportive care, corticosteroids, and anthelmintics. Essential supportive interventions include lumbar punctures, pain management, and intravenous fluids. Corticosteroids like dexamethasone reduce immune damage, while albendazole treats *A. cantonensis* infections. However, *B. procyonis* cases can cause neurological deficits. Delayed diagnoses and limited healthcare access among refugees, migrants, and travellers increase morbidity and mortality.

**Conclusions:** HEM is an emerging health concern in Canada and other developed nations, primarily due to migration and travellers returning from endemic areas. Local cases also suggest HEM might be present in non-endemic regions. Effective management relies on early detection and targeted treatment, making it essential for physicians to be knowledgeable about HEM. Future research should focus on improving refugee health policies, enhancing clinician education, and establishing standardized treatment protocols.