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 BIOMÉRIEUX

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

SickKids | Sinai Health | Lunenfeld-Tanenbaum Research Institute | Sunnybrook Research Institute | UNITY HEALTH TORONTO | UHN Canada's Hospital

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Abstract Booklet

May 27th - 28th, 2026

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Poster 67

Fruit-Bearing Plant Ethnopharmaceuticals for the Treatment of Old World Cutaneous Leishmaniasis

Dileesha Fernando[1,2], Ruwandi Kariyawasam[3,4], Michael Klowak[2,5], Kalsoom Shahzad[2], Eunice Aluko[2,6], Ezra Bado[2], Shveta Bhasker[2,5], Jason Kwan[7], Sonia Igboanugo[6], Andrea Boggild[2,5,6,8]

1 Institute of Health Policy, Management, and Evaluation;
2 Tropical Disease Unit, Toronto General Hospital, Toronto, Canada;
3 University of Alberta, Division of Diagnostic & Applied Medicine, Department of Laboratory Medicine & Pathology, Edmonton, Canada;
4 University of Alberta, Alberta Precision Laboratories - Public Health Laboratory (ProvLab), Edmonton, Canada;
5 Institute of Medical Science, University of Toronto, Toronto, Canada;
6 Department of Medicine, University of Toronto, Toronto, Canada;
7 Faculty of Medicine, University of British Columbia, Vancouver, Canada;
8 Office of Access and Outreach, Temerty Faculty of Medicine, University of Toronto, Toronto, Canada

Background: Old World Cutaneous Leishmaniasis (OWCL), caused by Leishmania species, is endemic in regions like the Middle East, Mediterranean, and Africa. Current treatments are toxic, expensive, and inaccessible in low-income countries. Despite the high disease burden, no new drugs have been developed in over 50 years. Plant-based compounds, particularly from fruit-bearing plants, show promise as alternative treatments. This research aims to evaluate the efficacy, safety, and mechanisms of action of fruit-bearing plant ethnopharmaceuticals in treating OWCL, with a focus on their anti-leishmanial activity and potential adverse effects. Methods: This systematic review searched four electronic databases (PubMed, Medline, Embase, and Web of Science) for studies on the efficacy, safety, lesion resolution, or tolerability of ethnopharmaceuticals for OWCL. Data extraction was done using Covidence, assessing risk of bias with Joanna Briggs Critical Appraisal Tools. Two reviewers extracted data and verified data based on the GRADE system, and resolved discrepancies through discussion. Results/Discussion: This research will assess the efficacy and safety of fruit-bearing plant ethnopharmaceuticals for OWCL, aiming to develop novel, cost-effective treatments. By evaluating plant-based therapies in clinical trials, it seeks to provide safe, accessible, and sustainable alternatives to current treatments in endemic regions, addressing this neglected disease. Conclusion: Evidence supporting specific ethnopharmaceutical strategies for OWCL is limited. This review synthesizes literature on fruit-bearing plant ethnopharmaceuticals, showing promising efficacy, with some compounds like Physalis minima and Morinda citrifolia achieving cure rates comparable to current treatments. Despite biases and small sample sizes, further well-conducted RCTs are needed to explore these potential therapies.