

NTDs Core-to-Core Project Kick-off Symposium Program

Oct9, 2025 (Thur) @WHO CC room, International Institute for Zoonosis Control

13:00- General Introduction by Kyoko Hayashida

13:10-13:40 Prof. Janelisa Musaya

Malawi-Liverpool-Wellcome (MLW) Programme, Kamuzu University of Health Science, Malawi

"From bench to communities: Evolving Insights into Trypanosomiasis in Malawi"

13:40-14:10 Dr. Mable Mutengo

Institute of Basic and Biomedical Sciences, Levy Mwanawasa Medical University, Zambia

"Schistosomiasis in Zambia: Opportunities for One Health Research collaborations to Enhance Control"

14:10-14:40 Dr. Elisha Chatanga

Faculty of Veterinary Science, Lilongwe University of Agriculture and Natural Resources, Malawi

"Tick-borne rickettsioses: a neglected public health threat in Malawi"

14:40-15:10 Dr. Walter Muleya

School of Veterinary Medicine, University of Zambia, University of Zambia, Zambia

"Shared Responsibility: The Current Status of NTDs in Zambia Focus on Leishmaniasis, African Trypanosomiasis and Rabies"

-----15:10- 15:30 Coffee Break -----

15:30-15:50 Dr. Kyoko Hayashida

International Institute for Zoonosis Control, Hokkaido University

"Trypanosome infection rates, host preference, and genetic structure of tsetse flies in the African trypanosomiasis endemic foci in Zambia and Malawi"

15:50- 16:10 Dr. Chizu Sanjoba

Graduate School of Agriculture and Life Sciences, University of Tokyo

"Who's the Vector? Leishmaniasis in Zambia Under the Microscope"

16:10- 16:30 Prof. Junya Yamagishi

International Institute for Zoonosis Control, Hokkaido University, Hokkaido University

"Development of diverse mNGS approaches for clinical diagnostics"

16:30- 16:50 Prof. Yasuyuki Goto

Graduate School of Agriculture and Life Science, University of Tokyo

"Zoonotic leishmaniasis in Sub-Saharan Africa"

16:50- 17:10 Dr. Naoki Hayashi

Faculty of Veterinary Medicine, Hokkaido University

"Helminthic Neglected Tropical Diseases in Japan"

17:10- 17:30 Dr. Mackenzie L. Kwak

Faculty of Veterinary Medicine, Hokkaido University

"Diversity and disease ecology of Zambian ticks"

17:30- 17:50 Dr. Takako Ikeda

Communication in Science and Technology Education and Research Program: CoSTEP, Hokkaido University

"Living with Urban Foxes in Sapporo:

Risk Communication on Echinococcosis, Feeding, and Human–Nature Relationships'

18:00- Closing and Welcome dinner @IIZC 3rd building, 3F Lounge

From bench to communities: Evolving Insights into Trypanosomiasis in Malawi

Prof. Janelisa Musaya

Malawi-Liverpool-Wellcome (MLW) Programme, Kamuzu University of Health Science, Malawi

African trypanosomiasis, transmitted by tsetse flies, remains a health and economic concern in Malawi where both AAT and rHAT persist. Over the past decade, we have conducted xenomonitoring, human surveillance, hospital record reviews, and molecular studies in Rumphu, Nkhosakota, Kasungu, and Liwonde. Seven *Trypanosoma* species were detected in tsetse flies, including *T. b. rhodesiense*, confirmed through PCR and sequencing. Human data showed rising rHAT cases between 2012 and 2019, peaking at 90, with 70% in men, before declining after the 2019–2020 outbreak. Asymptomatic infections were identified in Liwonde, while clusters of rHAT cases were concentrated within 10 km of nature reserves in Rumphu and Nkhosakota. Parasites in Khotakota and Rumphu has shown differences in gene expression profile for early and late stage individuals. Our findings confirm ongoing transmission and highlight the value of combining molecular epidemiology with field surveillance to inform targeted, cost-effective interventions.

Shared Responsibility: The Current Status of NTDs in Zambia. Focus on Leishmaniasis, African Trypanosomiasis and Rabies

Walter Muleya

School of Veterinary Medicine, University of Zambia, University of Zambia, Zambia

Neglected Tropical Diseases (NTDs) remain a significant public health and socio-economic challenge in Zambia, particularly those with zoonotic and vector-borne transmission cycles. This review highlights the current status of three key diseases: Leishmaniasis, Human African Trypanosomiasis (HAT) and Rabies.

Leishmaniasis is rarely reported in Zambia, with sporadic cases suggesting underdiagnosis and limited surveillance. The lack of routine screening and vector monitoring raises concerns about a hidden burden, especially in rural communities.

Human African Trypanosomiasis (HAT), historically a major threat in tsetse-infested regions, is believed to have declined significantly due to sustained vector control and case management or is just heavily misdiagnosed for diseases such as malaria. However, persistent ecological risk in rural areas necessitates vigilance to prevent re-emergence.

Rabies remains endemic, posing the most immediate zoonotic threat. Dog-mediated rabies accounts for nearly all human cases, with high fatality rates due to delayed treatment, vaccine stock-outs and inadequate post-exposure prophylaxis coverage.

These diseases exemplify the One Health challenge at the human–animal–environment interface. Their persistence reflects systemic issues such as inadequate diagnostics, weak surveillance, limited intersectoral collaboration and insufficient public awareness.

In order to effectively control these diseases, key priorities must include:

1. Strengthening integrated surveillance and diagnostics
2. Enhancing rabies vaccination campaigns and cross-border cooperation
3. Expanding vector control and monitoring for leishmaniasis and HAT
4. Embedding One Health strategies in national policy to ensure coordinated action

By recognizing these diseases as a shared responsibility, Zambia can reduce the hidden burden of neglected zoonoses and move closer to the WHO 2030 NTD Roadmap goals.