



Uganda Virus Research Institute



RESEARCH MATTERS

ISSUE 4 JULY - DECEMBER 2024

MESSAGE FROM THE UNIT DIRECTOR

Dear Readers,

As we approach the close of another remarkable year, I am filled with immense pride and gratitude for the strides we have made together. The achievements highlighted in this newsletter are a testament to the unwavering dedication and innovative spirit that define the MRC/UVRI and LSHTM Uganda Research Unit.

From new approaches to prevent HIV and non-communicable diseases to advances in vaccine research, our collective efforts continue to seek solutions to some of the world's most pressing health challenges. Equally inspiring is our commitment to mentorship, community engagement, and fostering inclusivity in science, ensuring that our work leaves a lasting impact on the communities we serve, and beyond.

Even with the challenging funding landscape, the Unit has demonstrated resilience and creativity, which has enabled us to achieve our milestones achieved, including in translating our research findings into policy and practice. This has been possible not only due to the hard work of our teams, but also the strong partnerships that the Unit enjoys, for which we are most grateful.

As we look ahead to 2025, I encourage us all to carry forward this momentum, embracing opportunities to innovate, grow, and lead with purpose. Together, let us join forces to continue making a difference, paving the way for a healthier and more equitable future.

Thank you for your dedication and contributions to our mission. Wishing you all a joyful holiday season and a prosperous new year!

Professor Moffat J. Nyirenda

UNIT NEWS HIGHLIGHTS



GROWING LEADERSHIP

The Vaccine Research Theme appointed its first honorary Deputy Theme Lead, <u>Dr. Sheila Nina Balinda</u>, to foster mentorship in leadership. Meanwhile, the NCD Theme welcomed <u>Dr. Etheldreda Nakimuli</u> <u>Mpungu</u> as Associate Professor, bringing her expertise in psychiatric epidemiology and psychotherapy to the team. Promotions for Drs. <u>Andrew Ssentoogo Ssemata</u>, <u>Nicholas Bbosa</u>, and <u>Yunia Mayanja</u> also highlight our commitment to nurturing mid-career scientists.

INNOVATING VACCINES FOR GLOBAL HEALTH

A locally designed adenovector backbone is driving efforts to develop a vaccine for Crimean Congo Hemorrhagic Fever. This milestone was celebrated with a launch event that brought together policymakers, scientists, and community representatives, marking the start of preclinical development. <u>Read more</u>





COMMUNITY CONVERSATIONS ON POPULATION DYNAMICS

In honor of World Population Day, a lively science café at the GPC spotlighted how population dynamics shape public health. Engaging researchers, advisory boards, and the Kyamulibwa community, the event reinforced the importance of collaboration in addressing public health challenges. <u>Read more.</u>

UNIT NEWS HIGHLIGHTS



TECH-DRIVEN HEALTH SOLUTIONS FOR AFRICA

The DIDIDA project is revolutionizing diagnostics with mobile phone-connected, low-cost tests for infectious diseases. Our collaborative research review meeting highlighted the innovative strides made in this Europe-Africa partnership. <u>Read more</u>

BUILDING A GLOBAL TRIALS COMMUNITY

The 2nd LSHTM Trials Day in Entebbe united researchers from Africa and the UK to share insights and strengthen best practices in clinical trials. The hybrid event exemplified cross-continental collaboration for advancing high impact research. <u>Read more</u>





ADVANCING HIV TREATMENT

At a Nairobi investigators' meeting, progress updates for the IMPALA Long-Acting Antiretrovirals trial showed promising advancements toward transforming HIV care in Africa. <u>Read more</u>

NEW RESEARCH



EXPANDING HIV PREVENTION FOR MOBILE WORKERS

The MOBILE MEN trial launches in Uganda to evaluate the effectiveness of long-acting injectable cabotegravir and oral Tenofovir/Emtricitabine in HIV prevention among mobile workers. <u>Read more</u>



UNRAVELING HIV RESERVOIR DYNAMICS

A new four-year fellowship, part of the CRICK Africa Network, is investigating unique HIV-1 subtypes in sub-Saharan Africa, paving the way for new strategies in tackling latent reservoirs. <u>Read more</u>



LINKING EARLY-LIFE EXPOSURE TO CARDIOVASCULAR RISKS

A study at the Entebbe Mother and Baby Study (EmaBS) cohort will use data from a long-standing cohort of over 20 years to uncover how infections and undernutrition during childhood contribute to adult cardiovascular risk factors. <u>Read more</u>.

TRANSFORMING DIABETES CARE IN AFRICA

A collaborative study on type 2 diabetes in sub-Saharan Africa aims to enhance diagnosis and management for lean patients, addressing an often-overlooked population. <u>Read more</u>



RESEARCH HIGHLIGHTS

UNPACKING HIV VACCINE EFFICACY

The results of the PrEPVacc HIV vaccine trial, conducted across Eastern and Southern Africa from 2020 to 2024, concluded that neither of the two experimental vaccine regimens reduced HIV infections. Vaccinations were stopped in November 2023 when independent experts determined the vaccines had little chance of demonstrating efficacy. <u>Read more</u>



REVOLUTIONIZING VACCINE EQUITY: INSIGHTS FROM THE POPVAC TRIAL

The landmark Population Differences in Vaccine Response (POPVAC) trials, published in *The Lancet Global Health*, unlock critical insights into why vaccine effectiveness varies in different settings. These studies explored how environmental factors and chronic infections shape immune responses among adolescents, creating opportunities for more equitable vaccine strategies worldwide. <u>Read more</u>

UNCOVERING ASTHMA TRIGGERS IN UGANDA'S URBAN AREAS

A Unit-led study funded by Wellcome has spotlighted a concerning link - children raised in Uganda's rapidly growing urban areas face significantly higher asthma risks than their counterparts in rural settings . Findings from this comprehensive study call for targeted interventions to address this growing urban health challenge. <u>Read more</u>



RESEARCH HIGHLIGHTS

MAPPING HIV MIGRATION IN LAKE VICTORIA COMMUNITIES

Unit researchers are untangling the web of HIV transmission in Lake Victoria's fishing communities. Their work sheds light on migration patterns and low treatment adherence, setting the stage for improved and community-focused interventions. <u>Read more</u>

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SOCIAL INSIGHTS INTO RESEARCH ACCEPTANCE

A Social Science Day held at the Unit featured discussions from researchers, health practitioners, and Community Advisory Board (CAB) members on the role of social science in understanding and improving vaccination programs. <u>Read more</u>

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TECH-BASED MENTAL HEALTH INTERVENTIONS

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At a recent stakeholders meeting, Unit scientists called for greater investment in the Tele-Support Psychotherapy (TSP) model, a mobile-based, Aldriven solution, to expand mental health care access in Uganda. Early trials show promise. <u>Read more</u>

KNOWLEDGE EXCHANGE



SHARING INSIGHTS ON HIV STUDIES AT IAS 2024

At the 2024 AIDS Conference in Munich, Unit researchers shared results from key HIV studies, emphasizing our leadership in this critical area. <u>Read more</u>.



CHAMPIONING DISABILITY

Our Disability Research Group presented six studies at the 7th CBR/CBID Africa Conference, advocating for the inclusion of persons with disabilities in research and policy. <u>Read more</u>

Contributing to health policy and practice - A Publications Update

In the last six months, our research themes have delivered insights in diverse fields of study, contributing to scientific excellence and a stronger public health sector.

- Viral Pathogens: With 12 impactful papers, our findings are shaping local vaccination strategies and influencing global health policies.
- Vaccine Research: From Schistosomiasis to Ebola and HIV, our 18 publications in leading journals like *The Lancet and BMJ Open* are paving the way for life-saving interventions.
- Non-Communicable Diseases (NCDs): Tackling challenges in cardiovascular health and beyond, our 13 studies highlight innovative treatments and prevention strategies.
- Collaborative Science: Five joint papers have emerged from the synergy between our viral pathogens and vaccine research teams, advancing vaccine effectiveness and understanding viral transmission.
- Global Partnerships: Through collaborations with universities across Uganda, Africa, and worldwide, we co-authored nine publications, broadening our research impact.

Explore the full publications list here

RESEARCH EXPERIENCES



FROM CHALLENGES TO GROWTH

Naume Tukasingular Adong, a youth researcher with a hearing impairment, shares how the *Disabled Youth Investigates* project transformed her perspective as a peer researcher. <u>Read more</u>

DEBUNKING MYTHS ABOUT MENTAL HEALTH

Dr. Allan Kalungi, a research fellow at the Unit explores how genetics could revolutionise our understanding of mental health disorders in Africa. <u>Read more</u>



OPERATIONAL HIGHLIGHTS



ENHANCING RISK MANAGEMENT FOR RESEARCH EXCELLENCE

We are excited to introduce our new Risk Policy, a significant step toward a secure, resilient and responsible research environment. This policy integrates risk management practices across all research themes, empowering program managers to take the lead as dedicated risk managers. By establishing consistent, Unit-wide procedures, we are ensuring a comprehensive approach to safeguarding the integrity, quality, and impact of every project.

IN THE NEWS

Catch the latest buzz around the Unit in the media from the second half of 2024!

<u>Uganda faces rising burden of non-communicable diseases.</u> <u>High blood pressure rises in the North, East and drops in the West</u> <u>MRC/UVRI and LSHTM Uganda Research Unit launches initiative to develop Crimean Congo</u> <u>Haemorrhagic Fever vaccine</u> <u>Kyamulibwa station, a resilient public health research hub</u> <u>Wakiso study shows benefits of integrated chronic illness care</u>

UPCOMING EVENTS

The 15th African Society of Human Genetics Conference – 3rd to 7th February 2025 Get ready for an exciting gathering of global leaders in genetics! This landmark conference will explore cutting-edge research and innovations in human genetics across Africa.

MRC/UVRI Inaugural Dissemination Conference – 11th to 13th March 2025 Join us for the first-ever MRC/UVRI Dissemination Conference, where we'll showcase our latest research and engage with global experts in science, health, and innovation.

World Immunisation Week Commemoration – 24th to 30th April 2025 Celebrate global efforts to improve vaccination coverage and public health! Join us for a week of impactful events highlighting the importance of immunisation in advancing global health.

Marburg Study Launch – 15th April 2025 Join us for the launch of a new collaborative study focused on prevention, treatment, and public health responses to this deadly virus.

CONTACT US

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