







Research Matters



Vision

To build on the Unit's past research achievements, and new opportunities, to contribute to the control of the HIV epidemic, of other infectious diseases, and of non-communicable diseases, in Uganda, the region and the world

Mission

- To conduct research to add knowledge and improve the control of infectious and non-communicable diseases in Uganda, in Africa and globally
- To contribute to the translation of research findings into policy and practice
- To build capacity for research in Africa



MRC/UVRI and LSHTM Uganda Research Unit







CORE VALUES

Our forth-coming values are the following



Act with integrity

Integrity matters. For it to really count, we need to live by what we believe in and prove it again and again, in everything we do. We hold ourselves to rigorous standards, both in our application of the scientific method and in our transparent, honest dealings with people and the world. We need to know where we've come from and stay alive to the impact of the choices we're making today, so we can keep on doing things better in the future. We lead with humility and openness and the ability to listen, learn and constantly improve.



Our community is our heart. We safeguard it, nurture it and help it grow. We reach out futher to embrace the world, seeking out and drawing in difference and diversity; different political perspectives, different cultural backgrounds, different life experiences and disciplines. To take on the challenges of the future, we will embrace all the creativity, imagination and determination our diverse community brings.





Work together

To make the most of our global community, we need to work together. Collaboration isn;t always easy but it's worth the effort. We are prepared to open our minds, to make room for new approaches, new ways of working and valuable insights that come from new places. We are respectful of one another at all times and mindful of power dynamics. If we can get the balance right and come together to work ad equals, we know we can harness the creative potential our community offers.

Create impact

We bring the transformative power of scientific insight and innovation to the day-to-day lives of people around the world, translating research into impact and educating the next generation of public health professionals. We solve difficult problems and unlock new possibilities by getting closer to root causes, working with people on the ground and by always striving to see the bigger picture. We're not afraid to challenge assumptions, to ask awkward questions or reimagine ways of work because that's how you spaerk new ideas and bring them to life.



NOTE FROM OUR DIRECTOR

Dear Colleagues and Partners

Greetings to you all, and welcome to the 1st issue of our revamped quarterly bulletin, ResearchAware, where we shall continuously update you on our key outputs as a Unit. 2022 was a year of positive change, growth, and learning for us and we are pleased to report success in our research mandate and mission in our six research programmes: HIV Epidemiology and Intervention, Pathogen Phenotype Genomics and Immunity. Immunomodulation and Vaccines, Cancer Epidemiology, Social aspects of Health Across the Life Course and the NCD Phenotype.

From unveiling a new state-of-art Clinical Research Facility (CRF) in Entebbe for research in infectious and non-communicable diseases, and enhanced knowledge exchange among researchers in Africa, to implementing key research that earned the Unit and its scientists' global recognition for contribution to the Science and policy. Our scientific capacity and infrastructure has continued to grow stronger and drawn essential local and global partnerships for more impactful intervention.

We launched a phase two photovoltaic project with support from the UK Research and Innovation/UK Medical Research Council (UKRI/MRC) Capital scheme and UKRI's Environmental Sustainability fund, which will increase our solar power generation to 70% by March 2023 in promoting both uninterrupted and enenergy efficient clinical research across our sites.



Professor Pontiano Kaleebu

Our stellar portfolio has attracted visits from high profile guests including Her Royal Highness, the Princess Royal Princess Anne, UK Minister of State of Development in the Foreign, UK Minister for Africa, Latin America and the Caribbean Vicky Ford, Her Excellency Kate Airey OBE, The British High Commissioner to Uganda, and the WHO regional Director for Africa Dr. Matshidiso Rebecca Moeti, among others, to tour our state of the art research infrastructure.

We are happy to share these and more highlights from our journey with you through this newsletter. Enjoy the read.

Professor Pontiano Kaleebu Unit Director

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HIV Epidemiology and Intervention Programme

Scientists Seek Innovative Ways to Diagnose Early HIV Test Infection



Following studies in central and south western Uganda under the KILGORIS study, epidemiologists at the MRC/UVRI and LSHTM Uganda Research Unit were able to identify acute and early HIV infected patients out of individuals with negative rapid diagnostic test results in Uganda. Read more

Increased Enrolment into PrEP Vacc Study to Improve HIV Outcomes in Africa



Our <u>PrEPVacc</u> study, reached the enrolment target of 500 volunteers between the ages of 18 to 35 years in December 2022. <u>PrEPVacc</u>, an Africa-led HIV Efficacy study, will provide critical information to move HIV vaccine information forward.Read more

Pathogen Genomics Phenotype and Immunity **Programme**

Strengthening Ebola Preparedness and Response in Uganda



The Ebola Sudan outbreak took the country by surprise, when the first case was identified in Mubende district. In support to the national response led by the Ministry of Health, the Unit Director Professor Pontiano Kaleebu and Professor Eugene Kinyanda, Head of Mental Health Section joined a WHO expert panel to address the most urgent scientific and psychosocial requirements to enhance effectiveness of the response. Read the director's statement.

COVID-19 Research at MRC/UVRI and LSHTM Uganda **Research Unit Continues**



COVID-19 Research in at the unit continued to make significant contributions that included providing data on circulating SARS-C0V-2 variants Uganda, participation in the evaluation of different COVID-19 vaccines and studying the immune profiles of those with natural infection and those vaccinated.

Immunomodulation and Vaccines Programme

Launching a Multidisciplinary Bilharzia Research Centre for Uganda



With funding from the National Institutes of Health (NIH), the Unit in partnership with the Uganda Virus Research Institute (UVRI) and other local and international partners launched the Uganda Schistosomiasis Multidisciplinary Research Center a novel platform for comprehensive research in Bilharzia, based in Entebbe. Read more

Boosting Vaccine Effectiveness Studies in Kenya and Uganda

The National Institute for Health and Care Research (NIHR) Global Health Research Group on Vaccines for vulnerable people in Africa (VAnguard) project was launched in Entebbe, Uganda and Kilifi, Kenya. The consortium project aims to strengthen collaborations between national and international stakeholders in the study of both social and biological factors that impair vaccine impact in African communities, and contribute to health equity in Africa.



Read more

Non-Communicable Disease Phenotype Programme

Contributing to a One-Stop Model of Patient Care for Non-Communicable Diseases and HIV in Uganda



Unit Study nurses who collected data for the INTE-AFRICA Study

Our NCD phenotype programme successfully tested the effectiveness of creating one-stop clinics for integrated health service provision to patients with HIV and chronic conditions such as diabetes and hypertension in health centres across central and eastern Uganda. The Ministry of Health used evidence from the study to establish a national roll-out plan. Read more

<u>Understanding Type 2 Diabetes in Lean Individuals: Findings</u> from a Ugandan Study

The Uganda Diabetes Phenotype Study, conducted in seven major hospitals in Uganda, revealed that more than a third of adult patients with a new diagnosis of diabetes were of normal body mass index (BMI), in contrast to findings in high-income countries where this condition is typically associated with obesity. This finding has huge implications on how diabetes is screened for and managed in Uganda plus other African countries. These implications were intensely



discussed in a special symposium at the <u>2022 Annnual Scientific Conference hosted by the Uganda Diabetes Association</u>. Read more about the findings <u>here.</u>



Our experts during the Annual Scientific Conference hosted by the Uganda Diabetes Association and co-funded by the Unit. Drs. Jean Claude Katte, Wisdom Nakanga, Davis Kibirige, and Anxious Niwaha four PhD fellows from our NCD's programme and Ms. Priscilla Balungi a specialist clinician from the Unit's Clinical Diagnostics and Laboratory Services platform.

Enhancing Disability Inclusion and Peer Support through Targeted Research

The Disability Research Group developed and is testing a peer-to-peer support program aimed at improving participation, inclusion, and quality of life of children with disabilities. The program manuals were developed together with the Ministry of Education and Sports and disability inclusion advocates in Uganda. The documentary about the interventions featured at the Africa Film Festival in Belgium. Read more



Research Support

Unveiling the New Clinical Research Facility to Enhance Clinical Research in Uganda

The MRC/UVRI and LSHTM Uganda Research Unit unveiled a state-of-the-art clinical research facility in Entebbe to support successful conduct of clinical studies that can make significant contributions to science, policy and practice in Uganda. The facility commissioning ceremony was presided over by the Ministry of Health represented by Hon. Dr. Jane Ruth Aceng, Her Excellency Kate Airey OBE, the British High Commissioner to Uganda and Professor Liam Smeeth, the Director of the London School of Hygiene and Tropical Medicine. Read more



New Unit Solar Project to Reduce Carbon Footprint by over 40% in 2023



The Unit received a grant of £1.350m to increase existing solar generation to 70% by 2023. This grant from the UK Research and Innovation/UK Medical Research Council (UKRI/MRC) Capital scheme and UKRI's Environmental Sustainability fund will promote uninterrupted and energy efficient clinical research across our sites and decrease our carbon footprint by over 40%. Read more

Digital Biobank to Increase Visibility for the Unit

The Frozen Specimen Archive (FSA), the Unit's storage center for bio research samples assessed all stored sample specimen in Freezer rooms to identify types of samples and the projects to which they belong to create a digital platform for all biological samples towards increasing visibility & utilization of the biospecimens. With approximately over three million bio-specimens in storage, bio repository transitioned old samples from access databases to Freezerworks, a fully configured Laboratory Information Management system (LIMs), trusted and used by many biobanks, laboratories, and biorepositories in the world. This will drastically streamline sample tracking and management while adhering to best practices and regulatory requirements by the Uganda National Council for Science and Technology. Read more



Our Clinical Research Laboratories Rank High in Africa



Two of our Unit clinical research laboratories based in Entebbe and Masaka districts were ranked among the top five in Africa by the International AIDS Vaccine Initiative (IAVI). These tech facilities, use state of the art technology such as the Beckman AutoMate 2550 sample processing system, and contributed to efforts in increasing efficiency of disease diagnosis, treatment and surveillance programmes across the country and international research projects. Read more

Enhancing Data Analysis and Management Skills for Unit Data Scientist

The Unit's statistics and data science team built researcher capacity in data efficiency through an in-house STATA training focused on programming and good practice for data management. The training was part of the Unit's ambitious transformative capacity development initiatives contributing to grooming data science professionals with expertise in the conduct of industry standard data analysis, managing datasets, representing findings, and analysis of our novel research on HIV, emerging and reemerging infections. Read more



Enhancing Effective Communication Skills for our Professionals



Communications and engagement department championed establishment of the first-ever capacity development platform aimed at enhancing effective communication skills for staff. Over 100 Unit staff have participated in these forums aimed at creating awareness about the value of effective communication and contributing to the Unit's rigorous capacity development initiatives grooming professionals communications expertise towards translating our novel research into policy and practice. Read more

News Highlights

Her Royal Highness, The Princess Royal Emphasizes the Importance of Research in Building a Healthy World

Her Royal Highness, The Princess Royal toured our state-of-the-art laboratory and research facilities in Entebbe, ahead of her four-day visit to Uganda. She visited the Unit's state-of-the-art laboratories, biobanking, and clinical research facilities that enable scientists from around the world to collaborate on cutting edge laboratory, clinical studies into the control of existing and emerging infectious diseases; such as COVID-19, drug resistance viruses, as well as non-communicable diseases such as cancer, hypertension and kidney diseases, which are growing public health concerns in Africa. Read more and see Her Royal Highness



emphasize the importance of research in building a healthy world.

The UK Minister Vicky Ford Visits the Unit



We welcomed the UK Minister for Africa, Latin America and the Caribbean- Vicky Ford. She was impressed by the Unit's commitment, dedication, community engagement approach, and state of the art infrastructure facilitating the conduct of medical research on deadly diseases like HIV/AIDS, Ebola, and Corona Virus Disease. Read more

Scientists Recognized for Achievement

Max Perutz Writing Science Award and the MRC Impact Prize 2022

Congratulations to our own scientists whose research and outstanding contributions were recognized and short-listed for prestigious awards in 2022!





Dr. Andrew Edielu', a scientist at the MRC/UVRI and LSHTM Uganda Research Unit, for his publication "Schistosomiasis in preschool aged children in Albertine Region of Uganda: a neglected tropical disease in a neglected community in a neglected population" was shortlisted to the finals for the prestigious Max Perutz 2022 Science Writing Award.

Dr Segun Fatumo, a Wellcome Intermediate Fellow, MRC/Uganda Virus Research Institute and LSHTM Uganda Research Unit, for pioneering genetic risk prediction of complex diseases in Africa and outstanding contribution to advance representation of Africans in genomics was announced a finalist for the prestigious MRC Impact Prize 2022.

Key Highlights from Knowledge **Transfer and Exchange**

Our experts at the Unit contributed to knowledge transfer and exchange through presentations at national & International scientific conferences, publications, and peer-reviewed journals. Our scientists have engaged with policy makers and the public towards translating research findings to policy and practice towards facilitating informed decision making processes in the health sector as members of technicals working groups for the Ministry of Health, Ministry of Gender, Labour and Social Development.



Dr. Femke Bannink Mbazzi presents Obuntu bulamu findings

"In 2022, I participated in the review of the Inclusive **Education Professional** Development manual for primary school teachers with the Ministry of Education & Sports. I also contributed knowledge & expertise in the review of the National Parenting Manual with Makerere University & the Ministry of Gender, Labour, and Social Development."

> Dr. Femke Bannink Mbazzi **Head Disability Research Group Associate Professor**

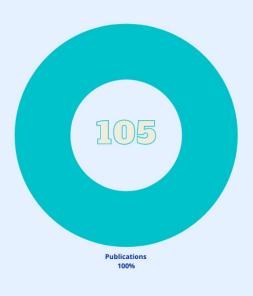


Dr. Josephine Birungi presents findings from the INTE-Africa Study to key policy makers including the Assistant Commissioner of NCDs at the Ministry of Health, Dr. Gerald Mutungi

"Learnings from our INTE-AFRICA **MOCCA** resulted studies in development of national guidelines HIV/NCD for integration in Uganda. Findings from the MOCCA study were presented to the NCD Forum Parliamentary Committee to support the lobbying for increased funding for NCD care to match up with HIV care."

Dr. Josephine Birungi Senior Research Scientist, NCD Phenotype **Programme**

Publications Authored to Influence the Health Policy Agenda in Uganda



Researchers presented the Science at national and international scientific conferences. As keynote speakers, guest lecturers and presenters, scientists engaged in a range of knowledge exchange platforms, including: Makerere University Lung Institute, National HIV and AIDs Symposium 2022, Inclusion Education Symposium Uganda, Nigeria Family Planning Conference, International Union Against Sexually Transmitted Infections, Africa Centre of Excellence for Neglected Tropical Diseases and Forensics Biotechnology, and Research Reboot of Tuberculosis the Keystone Symposia 50th Anniversary.

We published over 100 publications in peerreviewed journals including BioMed Central (BMC), Frontiers in Reproductive Health, Public Health, Journal of the International AIDs Society, Nature Communications, Pediatric Infectious Disease Journal, Wellcome Open Research, Journal of Interpersonal Violence.

Partnering with Communities in Research

integrated Our co-development mechanism of engaging communities implementation, research in our development and review through Community Advisory Boards (CABs) was successful throughout the year. The Unit has well-trained and committed CABs in our two field stations- Masaka and Kyamulibwa. A variety of community influencers constitute our membership.

Planned advisory meetings in 2022, supported the creation of links to communities for the review of key clinical and community-based at our field stations.

Father Emmanuel Katabaazi, the Chairperson of the Masaka Community Advisory Board (CAB) lauded the unit's inclusive approach to community engagement.

"We have been equipped with good participatory practices (GPP) and seen first-hand, the Unit's intentional steps towards employing a community inclusive approach."

Father Emmanuel Katabaazi Chairperson Community Advisory Board, Masaka

"The two-way information sharing system between the research teams and community stakeholders facilitated by the CAB has greatly cemented our working relationship with communities in the region and beyond."

Vincent Bassajja Community Liasion Officer,Masaka



Unit in the Media

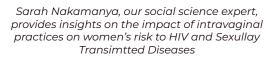
Highlights

<u>Getty Images</u> documented the journey of 10 new research participants in our PrEP Vacc HIV study at our Masaka site. Photojournalist, Luke Dray, shoot participants as they received their first vaccination and engaged in a retention meeting for existing participants.

Key events such as the launch of our Clinical Research Facility in Entebbe, our <u>genetic research</u> <u>work</u>, and <u>Her Royal Highness, The Princess Royal</u> visit to the Unit were featured in the media by <u>NTV</u> and <u>New Vision</u>.

Unit research was quoted in leading national dailies, providing vital knowledge into national and global topics of concern in the field of health. Congratulations to our scientists for contributing to knowledge transfer and exchange.







Dr. Sylvia Kusemererwa, our expert, explains the impact of the COVID-19 Lockdown on People Living with HIV.

Our Social Media Engagements

Twitter

We welcomed 1057 new followers to our <u>Twitter</u> family in 2022 and grew from 2072 to 3129 followers in one year! Thank you for the support, we will keep sharing the science!

Facebook

We are now at 4000+ followers! Thank you for your continued likes, shares and comments on our updates. We commit to even more sharing next year as the Unit continues to unveil more interesting developments!

Flickr

We also have a new photo repository because we wouldn't want you to miss out on our science in pictures. Check out the latest albums from key events and interventions through here.

LinkedIn

We now have a new <u>LinkedIn</u> page. Please visit and follow us through this link and continue to share the love!



Upcoming Events

MRC Open Communications Forum: UKRI Public Engagement Strategy Update

31st January 2023: Let your voice be heard as you shape MRC's public involvement and engagement plan in their recently published UKRI Public Engagement Strategy. Join the forum on 31 Jan, 2 - 3:30pm via Zoom as Tom Saunders, UKRI Head of Public Engagement, leads discussions about strategy goals and next steps for implementation.

MRC/UVRI Toastmasters Meetings

Join us every 3rd Thursday of the Month at the Seminar Room, 12:30 to 14:00pm. Register here for our next meeting. This platform is open to all staff.

Uganda Schistosomiasis Symposium



Funded by The Dutch Research Council(NWO) and National Institutes of Health(NIH)







"It is crucial that we address the lack of diversity in genomic data."

Segun Fatumo
Associate Professor of Genetic
Epidemiology & Bioinformatics at
the MRC/UVRI & LSHTM Uganda
Research Unit





2022 in















Pictures





















2022 in

















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12 Months of Research Excellence!

Research Matters is published by the MRC /UVRI and LSHTM Uganda Research Unit.
Our Newsletter can be downloaded as a pdf at:

www.lshtm.ac.uk/research/units/mrc-uganda/ newsletters

Research Matters is for everyone interested in our work and community. We are keen to receive feedback and suggestions via email to communications@mrcuganda.org

Editorial Team

Nancy Nandudu, Head Communications and Engagement

Joy Talemwa, Communications & Engagement Officer

Prof. Pontiano Kaleebu, Unit Director

Photo Credit

Carol Atuhura Dennis Ernest Ssesanga Esther Ssubi Rajab Lukwago

CONTACT

MRC/UVRI and LSHTM Uganda

Research Unit

Plot 51-57 Nakiwogo Road, PO Box 49, Entebbe – Uganda Office Line: +256 (0) 417 704196

: mrc@mrcuganda.org

http://www.mrcuganda.org/