WHERE WE WORK ▶

Our clinical studies are conducted with support from the Unit's Sequencing, Immunology, Clinical Trials and Clinical Diagnostics Laboratory Services and Biobanking (CDLS) research platforms at its Entebbe campus and Masaka City.

Our community-based studies also work through organized cohorts such as the Entebbe Mother and Baby Study (EMaBS) at Entebbe Grade A hospital, the General Population Cohort in Kyamulibwa, and in districts particularly affected by the infections we are studying.

ACHIEVEMENTS ▶

- Unique Diabetes Phenotypes: Identified the "lean African" type 2 diabetes phenotype, prevalent in up to 60% of cases in Uganda, and initiated studies to improve detection and management for this unique population.
- Integrated Chronic Care: Developed a "one-stop" model integrating diabetes, hypertension, and HIV care, improving outcomes and reducing costs. The model is being scaled up nationally in Uganda and Tanzania.
- Mental Health in Epidemic Settings: Successfully integrated depression management into HIV care (HIV+D Trial) and initiated trials to address psychological distress among Ebola survivors in Uganda (Ebola+D).
- Genetics of Chronic Diseases: Advanced genomic research on chronic diseases in African populations, publishing high-impact findings in Nature Medicine and Molecular Psychiatry. Nearly 7,000 participants have been genotyped, with plans for expansion.
- Disability Inclusion: Demonstrated the effectiveness of peer-to-peer support for improving disability inclusion in schools and trained 14 youth researchers with disabilities to lead impactful research locally and internationally.

Addressing Violence Against Women and Children: Established the Gender Violence and Health Research Group to improve evidence and responses to violence. Current projects focus on sexual harassment in low-wage employment and the intersection of disease outbreaks and gender-based violence.

ABOUT THE MRC/UVRI AND LSHTM UGANDA RESEARCH UNIT ▼

The MRC/UVRI & LSHTM Uganda Research Unit is an internationally recognized centre of excellence for research and training. The Unit was established in 1988 to improve the understanding and control of the HIV epidemic in Uganda and globally, following a request from the Uganda Government to the United Kingdom (UK) Government. After wide consultations, and in response to the changing public health landscape, Unit work has broadened beyond HIV to include other infections, neglected, endemic, emerging and re-emerging infections and non-communicable diseases (NCDs).

The Unit is one of two (2) UKRI/MRC Units outside the UK, the other one in the Gambia. With strong affiliation to the Uganda Virus Research Institute (UVRI), the Unit enjoys vital representation at government level, which facilitates translation of research findings.

In 2018, the Unit was transferred to LSHTM, a major UK global health institution. This new partnership is boosting research capacity into some of the current and emerging health issues in Africa and globally.

OUR MISSION ▶

To conduct high-quality research that adds knowledge and leads to improved control of infectious and non-communicable diseases in Uganda, Africa and globally, through translation of scientific findings into policy and practice, and rigorous research capacity building

CONTACT US

For more information about the theme, visit our web page at: www.mrc-uganda

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UKRI Medical Research Council | Uganda Virus Research Institute | London School of Hygiene & Tropical Medicine

THE NON-COMMUNICABLE DISEASES RESEARCH THEME

BACKGROUND

According to the WHO Global Status Report on Non Communicable Diseases 2022, NCDs are now the leading causes of morbidity and mortality globally, accounting for 41 million deaths annually–74% of all global deaths–with the majority of these deaths occurring in low- and middle-income countries.

In sub-Saharan Africa, NCDs often manifest at younger ages and present unique characteristics compared to high-income countries. These distinctions are shaped by factors such as the region's genetic diversity, high burden of infectious diseases, and widespread undernutrition, as noted in the WHO African Region Non Communicable Diseases Progress Monitor 2022. Despite the growing burden, the region remains under-resourced in research capacity and healthcare infrastructure needed to manage these chronic conditions effectively.

ABOUT THE NCD RESEARCH THEME

The NCD Research Theme brings together a multidisciplinary team of experts in epidemiology, social science, clinical science, and basic science. Collaborating closely with communities, national, regional and global authorities, as well as other research organizations, the team conducts diverse studies to inform and advance tailored intervention strategies for the prevention and management of chronic diseases, both locally and globally.

As one of three interconnected research priority areas at the Unit, alongside Vaccines and Viral Pathogens, the NCD Research Theme focuses on uncovering the unique patterns and drivers of chronic diseases. Our ultimate goal is to develop effective prevention and management strategies that address these challenges in a meaningful and impactful way.

OUR RESEARCH FOCUS AREAS

1. Diabetes

Our research delves into the unique phenotypes (traits) of diabetes, including the "thin T2D phenotype", exploring the genetic and environmental factors that influence these conditions in Africa. This includes investigating the impact of early life undernutrition and infections such as HIV and COVID-19 on diabetes risk. We also evaluate the effectiveness of lifestyle interventions and the use of metformin in the African context.

2. Non-Communicable Disease Genomics

Our work leverages the Unit's General Population Cohort (GPC) and regional collaborations to conduct genome-wide association studies (GWAS) and identify disease associations, develop African-specific genetic risk scoring tools for more common cardio metabolic disorders, chronic kidney disease, and mental disorders. Our research also includes capacity-building activities in collaboration with like-minded institutions and through networks, both locally and globally.

3. Mental Health

Focusing on the burden of mental health, particularly among people living with HIV, our research has identified high rates of emotional mental disorders (EMD), such as anxiety and depression, among young people living with HIV in Uganda. We design and evaluate interventions to improve screening and management of these conditions and explore the role of genetic factors, inflammation, and environmental exposures in mental health.

4. Disability

Our innovative, co-creative, multi-country mixed-methods disability research aims to enhance the inclusion of children and youth with disabilities in health research across East Africa. By fostering a more inclusive approach, we strive to improve the health, development, and overall quality of life for persons with disabilities on the continent. In collaboration with local and international partners, our work focuses on identifying barriers and enablers to the participation of children and youth with disabilities in health research, co-creating practical solutions to ensure disability inclusion, and establishing a dedicated Disability Knowledge and Research Centre. This center will serve as a hub for advancing inclusive health research, promoting equity, diversity, and inclusion across research, education, and employment sectors. Our ultimate ambition is to establish a Centre of Excellence for Disability Inclusiveness in East Africa, driving transformative change in health research and beyond.

5. Violence

Research in this area focuses on adolescent health and well-being, examining the health impacts of violence and its relationship to mental health outcomes, vulnerability to sexually transmitted infections and adherence to ART. We also explore health sector responses to violence and develop interventions to address the social and structural drivers of morbidity. Our work benefits from collaborations with the London School of Hygiene & Tropical Medicine, the Gender Violence and Health Centre, and the Centre for Maternal Adolescent and Reproductive and Child Health (MARCH).

CAPACITY BUILDING

Through targeted training programs, mentorship, and collaborative strategies, early-mid career scientists have been able to successfully compete for prestigious Fellowships, including Wellcome early career awards, strengthening local expertise in epidemiology, clinical research, and health systems. Guided by the Unit's overarching capacity building strategy, our efforts are focused on building partnerships with local and global academic institutions to support early career scientists. We also engage directly with communities to co-develop innovative research studies for the prevention and management of NCDs.

PARTNERSHIP FOR IMPACT

We are committed to ensuring the impact of our research and are actively building strategic partnerships with key stakeholders in the fight against chronic diseases. Our partners include:

1. The Ministry of Health, its key agencies and regulatory bodies
2. Research community volunteers in at-risk areas of focus
3. Community Advisory Boards (CABs)
4. National and international research organisations and networks
5. Academic institutions
6. Health service providers