MILK STUDY NEWSLETTER

Issue 11



Digital Health Africa 2025

We are delighted to announce the Second Digital Health Africa Conference, DHA-2025 on 3-4 September 2025. DHA2025 will use an innovative conference design to enable networking in a sustainable manner, with physical venues in Berlin, Pretoria and Kampala virtually networked together.

The Conference will provide further practical insights into the potential applications of digital technologies, using maternal and neonatal health, a major unique challenges of medicine in Africa. Topics of interest will include patient registries, safety signals of special interest, vaccine use in pregnancy and breastfeeding, vaccines labelling in pregnancy, emerging infections and antibiotic resistance, pharmacometric modelling, precision medicine, medicines regulation, telemedicine, ethical and legal aspects, and capability enhancement.

Scan this QR code to register

DHA Mission and Goals

We are committed to advancing the digital health landscape in Africa by bringing together visionaries, thought leaders, and practitioners at the intersection of technology and healthcare. Our mission is to facilitate meaningful conversations, foster collaboration, and showcase transformative innovations that address the unique health challenges faced by the diverse communities across the continent.

Organizers and sponsors



MILK Study and Attaining Equity of Access to Research (At The EQUATOR) team

Goals Set

The MILK study team has embarked on a process of documenting the study and other public engagement projects impact which is crucial for demonstrating the value and effectiveness of our research. We will involve systematically capturing evidence of how our study and projects have contributed to knowledge, practice, policy, or community well-being.

Monitoring, Evaluation, Learning and Impact

MILK Study Launches Quarterly Meetings to Strengthen Research Collaboration

The Maternal Infant Lactation Pharmacokinetics (MILK) Study, a groundbreaking project led by the Infectious Diseases Institute (IDI), has officially launched its series of quarterly research meetings. These regular sessions are designed to foster collaboration, monitor progress, and drive scientific excellence in understanding drug transfer from mothers to infants through breastfeeding.

The MILK Study focuses on generating critical data on how medications used to treat infectious diseases are excreted into breast milk and absorbed by breastfeeding infants. This research is urgently needed to inform safe and effective treatment guidelines for lactating mothers, particularly in low-resource settings where breastfeeding is vital for infant nutrition and survival.

The quarterly meetings bring together a dynamic team of investigators, pharmacokinetic experts, clinicians, study coordinators, laboratory scientists, data managers, communications and public engagement specialists, peer mothers, and grants management professionals. Key objectives of these sessions include:

- Progress Updates: Reviewing recruitment, enrollment, and sample collection milestones.
- Data Quality Assurance: Discussing preliminary data trends and reinforcing adherence to protocols.
- Problem-Solving: Addressing logistical, ethical, or methodological challenges in real-time.
- Capacity Building: Offering short training updates on lactation PK modeling, infant sampling techniques, and emerging best practices.
- Strategic Planning: Aligning study timelines with upcoming analyses, manuscripts, and dissemination activities.





The MILK programme began with a study of antiretrovirals in breastfeeding from 2015 to 2020, and was formally 'christened' in 2021. We now move into a new phase of maturity, with a growing team and strong cross-disciplinary engagement. For this reason, it is important to take extended time to strategise, establish clear shared priorities and workflows, and also enjoy some team-building activities. We met under challenging circumstances, having received news of the sudden and unexpected death of our pharmacokinetic nurse, Jovia Mirembe Tabwenda. But the away day gave us time to reflect on her life, her priorities, and how she had influenced us all in different ways. As the team moves into the next phase, we know we could not have reached this milestone without Jovia's unique input, and we honour her memory as we move forward. The solemn moment reminded us that people are at the heart of every project, and we should never become so busy that we neglect to take care of one another.

Prof. Catriona Waitt

The MILK study quarterly meetings are designed to foster a structured platform where the research team can jointly review progress, address challenges, and co-develop solutions in real time.



Ritah Nakijoba

> *The MILK study team is a diverse and multidisciplinary group led by Catriona Waitt, a Professor of Pharmacology and Global Health, and includes postdoctoral researchers, public health professionals, pharmacists, a communications and public engagement specialist, research nurses, a peer mother, and home visitors, among others. This diversity brings a wealth of experience, skills, and perspectives, allowing the team to harness individual strengths while offering support where needed. Under strong leadership, the team has successfully secured multiple public engagement grants, which have expanded our outreach beyond urban Kampala to other regions in Uganda. These opportunities have not only strengthened our relevance but also deepened our impact within communities. Importantly, the active involvement of Community Advisory Board (CAB) members continues to foster inclusive participation, promote a shared sense of purpose, and enhance team ownership in our research activities.*

The MILK study postdoctoral fellow, Dr. Aida Kawuma notes that the strategizing meetings allow the MILK research team to evaluate progress, identify areas for improvement, and adjust strategies. This, in addition to providing a platform to discuss challenges, brainstorm solutions, and allocate resources.

We conducted a SWOT analysis in a relaxed and laid-back environment. The process was very insightful for the team. It helped us to think critically about the external challenges we face currently but also about our internal team and institutional dynamics and how these have impacted where we find ourselves to date. What stood out for me most was how it encouraged honest reflection on our weaknesses, which can often be uncomfortable, yet necessary for growth and improvement. At the same time, it was encouraging to recognize our strengths, how much we have achieved (continue to achieve) and explore how we can build on them to reach even higher. In conclusion, the balanced nature of a SWOT analysis makes it a valuable tool for team development, and I would encourage any team to walk through this sort of analysis together.



Dr. Aida Kawuma

MILK Study Scholars Attend Prestigious Florida Winter School



In a significant stride toward capacity building and scientific excellence, two scholars from the MILK Study's Physiologically Based Pharmacokinetic (PBPK) modeling team recently participated in the internationally renowned Florida Winter School on PBPK Modeling and Simulation. Held in February 2025, the intensive program attracted participants from leading academic institutions, regulatory bodies, and pharmaceutical industries across the globe.

The MILK Study which focuses on maternal and infant health particularly the transfer of medications through breast milk—has embedded PBPK modeling as a key component of its research. The participation of its scholars in the Florida Winter School reflects the study's commitment to advancing technical expertise and leveraging cutting-edge tools to inform safer, evidence-based guidelines for lactating mothers.

During the week-long program, the MILK PBPK scholars engaged in advanced sessions on model development, verification, and application, with a strong focus on translational science. Their participation has already started yielding dividends, as they bring back refined techniques and new ideas to strengthen the MILK Study's analytical framework.

The Florida Winter School 2025 was an amazing learning experience, and a critical opportunity to network with fellow scholars and leading scientists in the field of PBPK modeling. Travelling with fellow MILK scholars continues to make a difference, with the collective experience continuing to influence the scholar environment at the Infectious Diseases Institute



Joshua Kiptoo

This experience marks an important investment in local research talent and contributes to the long-term goal of building sustainable, context-relevant pharmacological research capacity in sub-Saharan Africa.



Attending the Florida Winter School was a transformative experience for me as an emerging modeler and PhD scholar. It not only deepened my technical expertise through immersive workshops and cutting-edge discussions, but also built my research capacity by connecting me to inspiring mentors and peers. Technical aspects of modelling were demystified, spurring me to push the boundaries of translational science in my early career.

Davies Otieno

As the MILK Study continues to generate high-quality data on maternal medication use and infant health, the application of PBPK models will be instrumental in shaping safer clinical and public health practices.

This was an extremely important collaborative activity for our PhD scholars to participate in, and we are extremely grateful to the support offered by Stephan Schmidt and the team from the Center for Pharmacometrics and Systems Pharmacology at University of Florida. The whole team has benefitted from this opportunity: the returning scholars have already presented their key learning to the wider team, and are bringing the new perspectives to our lab meeting.



Catriona Waitt

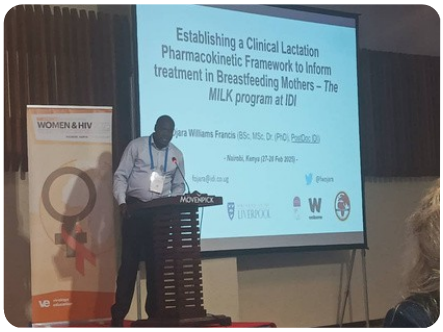
The 2nd African Workshop on HIV and Women



Members of the MILK Study team comprising a postdoctoral fellow Dr. Francis Williams Ojara, and Jacqueline Kyeyune a peer mother, participated in the 2nd African Workshop on HIV and Women, held in Nairobi, Kenya. The workshop brought together researchers, clinicians, advocates, and community leaders from across the continent to explore critical intersections between HIV, gender, and women's health in Africa.

Representing the MILK Study, which investigates the safe use of medications during breastfeeding in HIV-affected populations, the team shared key insights on maternal experiences, community engagement strategies, and the role of peer support in strengthening health outcomes for women living with HIV.

The MILK postdoctoral fellow, Dr. Francis Williams Ojara, presented on ***Establishing a Clinical Lactation Pharmacokinetic Framework to Inform Treatment in Breastfeeding - The MILK Study Program at IDI***. His presentation received positive feedback and sparked conversations about integrating pharmacological modeling into maternal-child HIV, TB and Malaria research across the continent.





Dr. Francis Ojara

The workshop emphasized the importance of community engagement, evidence-based interventions, and the inclusion of women's voices in shaping HIV policies and programs. Uniquely, it provided an opportunity to present the gains made by the Maternal and Infant Lactation pharmacokinetic (MILK) program at IDI in establishing a lactation pharmacokinetic analysis platform, and further emphasis on the preparedness to conduct complex clinical pharmacokinetic studies at the IDI

The MILK Study team's participation highlighted the value of multidisciplinary and community-led approaches in tackling complex health challenges. It also reinforced the importance of cross-border collaboration in advancing women-centered HIV research and care.

It was a milestone for our Peer Mother, Jacqueline to be invited to participate in a panel discussion at the conference in Nairobi. I had the opportunity to join the session virtually, and hear her bring a clear and challenging perspective through the eyes of somebody with lived experience of being a pregnant adolescent with HIV. She reminded all delegates that there is a unique individual at the centre of all our work. In the Scientific Programme, postdoctoral pharmacokinetic modeller Francis Williams Ojara gave a strong overview of the whole MILK programme, exemplified by the example of the antiretroviral drug lamivudine. Together, Jackie and Francis demonstrated the unique multidisciplinary team enabling the whole process, from communities through to complex mathematical analysis, is captured.



Catriona Waitt

The workshop also offered rich networking opportunities, panel discussions on reproductive justice and treatment equity, and skills-building sessions focused on translating research into policy and practice.









Jacqueline Kyeyune

This was my first time to attend a workshop of such a magnitude, not to mention being part of a panel discussion that involved distinguished advocates. It was a great opportunity for networking and with the various delegates like Angelina Namiba one of the founders of 4MNet CIC Mothers in Africa who has vast experience in facilitating, promoting and advocating for the involvement of women living with HIV in local and national strategy and policy.. Appreciation goes to our MILK Team lead Professor Catriona Waitt and MILK Team for the opportunity, support. I gained useful knowledge on addressing challenges faced by women living with HIV in Africa.

MILK Staff Represent at ISSX Africa 2025

The MILK Study team was well represented at the ISSX Africa Meeting held in Cape Town, South Africa, in April 2025. The conference, a premier gathering for scientists in pharmacokinetics, drug metabolism, and xenobiotic research, provided a dynamic platform for the MILK team to share their work and engage with leading researchers across the continent. The MILK team included Prof. Catriona Waitt, Dr. Aida Kawuma, and Henry Enzama. This workshop included a Pharmacometrics Africa short course, where Dr. Aida, the MILK postdoctoral modeller, was among the faculty.







Dr. Aida Kawuma

> *"I was honoured to be invited to speak at the ISSX Africa workshop in Johannesburg in March 2025. For me, this invitation was a testament to the growth of the pharmacometrics discipline on the African continent and its acceptability as a unique tool to help address the many unanswered questions we have in a bid to improve treatment outcomes. Having been trained in Africa and continuing to work from here, I believe my journey highlights the continent's capacity not only to train but also to retain scientific talent. It was a privilege to share insights into the field of pharmacometrics and discuss its relevance and use in Africa, a region that continues to bear the highest burden of infectious diseases."*







A standout moment came when Davies Otieno, a research scientist on the MILK Study team, was awarded Best Poster Presentation for his work titled "Modeling Antiretroviral Drug Transfer into Breast Milk Using PBPK Approaches in African Populations." His presentation demonstrated how physiologically based pharmacokinetic (PBPK) modeling can be tailored to African maternal-infant contexts to inform safer medication guidelines for breastfeeding mothers living with HIV.





Davies Otieno

> *"The first ISSX Africa conference was an unforgettable experience. I was honored to receive an award for the abstract of my MMed thesis on tacrolimus metabolism in Kenya, a recognition that not only validated the years of mentorship and hard work, but also inspired me to further explore innovative approaches in our field. This recognition has been a significant milestone in my journey, fueling my passion to advance clinical research and contribute meaningfully to our discipline through multidisciplinary collaboration."*

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