



ANNUAL REPORT

July 2022 June 2023



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This annual report was prepared by Makerere University Lung Institute
Makerere University College of Health Sciences, Upper Mulago Hill
P. O. Box 7749, Kampala, Uganda
Email: mli@chs.mak.ac.ug
Office: +256 414699134

Report development team:

Dr. Simon Walusimbi
Dr. Winters Muttamba
Ms. Zahra Namuli Ssentongo
Ms. Jackline Nakabira

Acknowledgements

The Institute has continued to deliver on its mission and set objectives during the quarter despite the prevailing challenges. To address current and potential future challenges, the Board's guidance is required. We acknowledge our partners for the immense support to Makerere University Lung Institute.

LAYOUT & DESIGN

Jacob Nansinguza
Editorial Design, Scientific & Medical Illustration

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Mission Statement and Values



To conduct high-quality lung health research that integrates disease prevention, clinical care and training in Sub-Saharan Africa.

MLI Core Values



Excellence



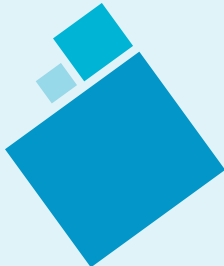
Innovation



Care



Integrity



Effort Norm



Science for healthy lungs.

Word from the MLI Board Chair

Prof. Charles Ibingira

**FORMER PRINCIPAL MakCHS AND
CHAIRPERSON - MLI**

*Dear Esteemed Colleagues,
Partners, and Stakeholders,*

It is my distinct honor to address you as the Chairperson of the Board of Directors for the Makerere University Lung Institute in this annual report covering the period from July 2022 to June 2023. As we navigate the complexities of our mission to conduct high-quality lung health research that seamlessly integrates disease prevention, clinical care, and training in Sub-Saharan Africa, I am pleased to share the progress and achievements that have defined this transformative year.

Our commitment to excellence in lung health research is evident in the groundbreaking work undertaken by our dedicated team. Through a multidisciplinary approach, we have continued to explore innovative avenues that contribute not only to the scientific community but, more importantly, to the well-being of individuals across Sub-Saharan Africa. Our efforts aim not just at understanding and treating lung diseases but at proactively preventing them, recognizing the invaluable intersection of disease prevention, clinical care, and training.

Collaboration has been a cornerstone of our success. The Makerere University Lung Institute has actively engaged with local and international partners, fostering relationships that amplify the impact of our research and initiatives. Together, we have created a collaborative ecosystem that transcends borders, enriching our understanding of lung health and bolstering our collective ability to make a meaningful difference.

In Sub-Saharan Africa, where the need for comprehensive lung health strategies is particularly pronounced, our training programs have played a pivotal role. Empowering the next generation of researchers and healthcare professionals is integral to our mission. The Institute's commitment to providing cutting-edge training opportunities ensures that our

impact extends far beyond the confines of our immediate activities, leaving a lasting legacy in the development of lung health expertise.

Despite the challenges we faced, our resilience has been unwavering. We have embraced change with adaptability, turning obstacles into stepping stones for progress. The dedication of our team, the support of our partners, and the resilience of the communities we serve have been instrumental in overcoming challenges and moving forward with determination.

Looking ahead, the Makerere University Lung Institute is poised for even greater achievements. We envision a future where our research continues to break new ground, our clinical care models set benchmarks for excellence, and our training programs inspire a new cadre of leaders in lung health across Sub-Saharan Africa.

I extend my deepest appreciation to everyone who has contributed to the success of the Makerere University Lung Institute during this transformative year. Your commitment to our mission is the driving force behind our accomplishments, and I look forward to the continued collaboration and progress that lie ahead.



Word from the Managing Director

PROF. BRUCE J. KIRENGA

*Dear Esteemed Colleagues,
Partners, and Friends,*

It is with great pleasure that I present the annual report for the Makerere University Lung Institute, covering the period from July 2022 to June 2023. This year has been marked by significant accomplishments and unwavering dedication from our team in pursuit of our mission to advance lung health in Sub-Saharan Africa.

Research and Grants: I am pleased to share that during this period, we submitted a total of 12 grants, reflecting our commitment to expanding our research endeavors. These grants are instrumental in fueling the innovative work undertaken by our researchers, driving progress in understanding and addressing critical challenges in lung health.

Despite the challenges posed, our Joint Research Committee (JRC) conducted 39 meetings out of the planned 44. This demonstrates the diligence and commitment of our team to ensure the seamless progression of our research initiatives and collaborations.

In the spirit of knowledge dissemination, we are proud to report that 38 publications were produced between April and June 2023, surpassing our annual target of 25. These publications contribute valuable insights to the scientific community, further establishing our institute as a key player in the field of lung health research.

Our ongoing projects showcase the diversity and impact of our work. The Clinical Trials on Natural Therapeutics (CONAT) project exemplifies our dedication to exploring innovative treatment modalities. Additionally, the Acute Lower Respiratory Illness Treatment Evaluation (ALRITE) mobile health application is poised to revolutionize the diagnosis and management of respiratory illnesses in young children in Uganda among others.

I am thrilled to announce that the hard work and dedication of our scientists have been duly

recognized, resulting in well-deserved awards. These accolades not only reflect the caliber of our team but also highlight the positive impact of our research on the broader scientific community.

Our clinic has remained a beacon of healthcare, receiving a total of 3,796 patients throughout the year. This not only underscores the vital role we play in the community but also serves as a testament to the trust placed in our institute for quality healthcare services.

In our commitment to continuous learning, MLI organized monthly virtual sessions, achieving an impressive 100% completion rate with a total of 11 sessions conducted. This platform has proven invaluable in fostering knowledge exchange and collaboration where medical workers who participate are awarded CPDS

As we reflect on the achievements of the past year, we remain steadfast in our commitment to advancing lung health research, clinical care, and training in Sub-Saharan Africa. I extend my gratitude to our dedicated team, esteemed partners, and the communities we serve for their unwavering support and collaboration.

Here's to a future filled with continued progress and impactful contributions to lung health.



Executive Summary

Makerere University Lung Institute (MLI) stands as a hub of excellence dedicated to lung health-related research, training, and clinical care. The institute's activities are meticulously outlined in annual work plans, and their execution is carried out through various departments and units. This report presents a comprehensive overview of the institute's accomplishments spanning one year, from July 2022 to June 2023.

In the realm of research and innovation, the unit, bolstered by the grants unit, successfully secured funding, securing a total of twelve (12) grants throughout the year. The department also maintained its commitment to journal and research conference (JRC) sessions, accomplishing 88% of the planned 44 sessions. The grants unit further facilitated the Institute's registration on EU platforms, obtaining a Participant Identification Code (PIC) - 881534643. A robust dissemination effort led to the publication of 38 manuscripts in peer-reviewed journals during the year.

The training and education department sustained its monthly Day of Lung Science sessions, achieving a 100% success rate

with all eleven planned sessions conducted. Additionally, the department actively engaged with the media on various lung-related issues.

Within the Institute clinic, expansion efforts resulted in the creation of two extra rooms dedicated to housing the clinical laboratory and the spirometry laboratory. To enhance service delivery, a nurse was recruited.

Moreover, the Institute successfully initiated and completed the development of its 5-year strategic plan (2023 - 2028) by the end of the third quarter. Implementation of this strategic plan is slated to commence in July 2023.

In conclusion, guided by the current work plan, the institute has made commendable progress in realizing its objectives during this quarter. Any outstanding goals will be diligently pursued in the upcoming financial year, ensuring the continued success and growth of the Makerere University Lung Institute.

Departmental Reports

RESEARCH AND INNOVATION DEPARTMENT

The following section provides a summary of activities carried out by the department during the 2022/23 fiscal year. The Research and Innovation department comprises multiple units, namely the Grants Unit, Data & Biostatistics Unit, Quality Control Unit, and the Grants Management Unit.

The Grants Unit offers assistance in grant writing, manages grants for researchers, and ensures adherence to funder regulations. The tables below provide an overview of the number of grants submitted and awarded. In the financial year, a total of 12 grants were



submitted, all of which were awarded, including sub-contracted grants.

Table 1: Grants submitted including subcontracts (01/07/2022 - 30/06/2023)

Sn	Details	Principal Investigator	Funder	Amount
1	Catalyzing research and training on the impact of HIV on Aging Across the Lifespan of Persons Living with HIV through administrative supplements to existing Fogarty International Center HIV programs (HIV-Aging2023S)	Dr. Alex Kayongo	NIH	\$99,360
2	Improving diagnosis of pediatric respiratory conditions in Africa	Dr. Rebecca Nantanda	NIHR -Global Health Group	£397,000
3	AFRIVAC Consortium, Proposal#: 101137538, The Immune Landscape of COVID-19 vaccines in the African population	Assoc. Prof Bruce J Kirenga	EDCTP	€ 8,293,791
4	AFRITRAC Consortium, Proposal#:101145807, African Network for Clinical Research Training to Combat Lethal Epidemics	Assoc. Prof Bruce J Kirenga	EDCTP	€5,510,951
5	Chronic Respiratory Disease Observatory for Africa (CHEST-AFRICA)	Dr. Rebecca Nantanda	Imperial College London	\$10,000

6	Microbiome specific T-cell clonotypes as drivers of inflammation in HIV-associated COPD	Dr. Alex Kayongo	MRC	£ 750,000
7	Characterising the immunological genetic advantage during SARS COV-2 co-infection with HIV-1/TB in sub-Saharan Africa	Dr. Sheila Balinda and Prof. Bruce J Kirenga	MRC	£ 733,506
8	Improving access to asthma care for children and adolescents in Uganda	Dr. Rebecca Nantanda	MRC	£ 593,917
9	Community Based Intervention for Active TB Case finding in identified TB hotspots in East Africa: A Pragmatic, Open Label, Cluster Randomized Controlled Translational Trial	Assoc. Prof. Bruce J Kirenga	EDCTP	\$1,074,811
10	HIV-associated NCDs Research at LMIC Institutions	Dr. Alex Kayongo	NIH	\$ 273,120
11	The Second Uganda National Anti-Tuberculosis Drugs Resistance Survey (Drs2)	Assoc. Prof. Bruce J Kirenga	USAID & Global Fund	\$1,813,908.80
12	Investigation of Research Administration Capacities and Practices in sub-Saharan Africa	Mr. Mordecai Tayebwa	N C U R A Research Program	\$40,000

Table 2: Grants awarded including subcontracts (01/07/2022 - 30/06/2023)

Sn	Details	Principal Investigator	Funder	Amount
1	Alleviating the Burden of Chronic Respiratory Diseases in Low- and Middle-Income Countries: Developing a Pulmonary Rehabilitation Research Network	Dr. Wincelous Katagira	G C R F Networking Grants	£2,000
2	Improving access to asthma care for children and adolescents in Uganda	Dr. Rebecca Nantanda	MRC/UKRI	£600,000
3	Chronic Respiratory Disease Observatory for Africa (CHEST-AFRICA)	Dr. Rebecca Nantanda	Northern Hemisphere Centre	\$10,000
4	Improving the management of children with asthma in urban health care facilities in Greater Kampala Metropolitan Area (GKMA) through Training and Mentorship	Dr. Rebecca Nantanda	CIPLA	Ugx 49,240,700
5	The Second Uganda National Anti-Tuberculosis Drugs Resistance Survey (DRS-2)	Prof. Bruce J Kirenga	U S A I D & Global Fund	\$1,813,908.80
6	Microbiome specific T-cell clonotypes as drivers of inflammation in HIV-associated COPD	Dr. Alex Kayongo	MRC	£ 750,000
7	TEV Trial	Prof. Bruce J Kirenga	WHO	\$4,401,418

8	The Impact of Covid-19 on school Enrolment and mental health of Children in the Manafwa watershed PEER Grant	Dr. Charles Batte	National Academy of Sciences (NAS)	\$70,000
9	Efficacy and Safety of Dihydroartemisinin-Piperaquine (Eurartesim) for Treatment of Uncomplicated P. Falciparum Malaria in Adult Patients with Covid-19 Co-Morbidity: An Open Label Non-Randomised Clinical Trial (EMCOS)	Dr. Haruna Muwonge	Alfasigma S.p.A	€ 100,000
10	Evaluation of Tuberculosis differentiated service delivery approaches during COVID-19 and beyond	Prof. Bruce J Kirenga		\$ 69,627
11	Associations between PM2.5 and Source-Specific PM2.5- The AirQo research project and Cardiovascular/Respiratory diseases (hospitalization and ED visit rates) in the residents (children and adults) of urban Kampala, Uganda”	Prof. Bruce J Kirenga and Dr. Shelton Maringa Tendai	Expertise France	Euros 72,292
12	Addressing barriers to uptake of LF-LAM test at poorly performing health facilities in the country through use of evidence-based quality improvement approaches so as to inform further implementation and scale up	Dr. Bruce Kirenga	The Clinton Health Access Initiative, Inc. (“CHAI”),	USD 49,990.27.

The grants unit has also been able to accomplish the following during this quarter:

The Grants and Contracts Office provided support to both MLI and MakCHS faculty/staff in the development and submission of grant applications. Staff and faculty were guided through the application processes, understanding requirements that enhanced their proficiency in subsequent submissions. The office actively sought and disseminated funding opportunities to faculty/staff, sharing a total of 197 opportunities through the website, personalized emails, and departmental outreach initiatives. Four opportunities were selected for development, and all were successfully submitted through the Grants Office. Notably, three proposals have been awarded in this quarter

1) The Grants and Contracts Office provided

support to both MLI and MakCHS faculty/staff in the development and submission of grant applications. Staff and faculty were guided through the application processes, understanding requirements that enhanced their proficiency in subsequent submissions. The office actively sought and disseminated funding opportunities to faculty/staff, sharing a total of 197 opportunities through the website, personalized emails, and departmental outreach initiatives. Four opportunities were selected for development, and all were successfully submitted through the Grants Office. Notably, three proposals have been awarded in this quarter.

2) MLI had the honor of hosting Dr. Nathaniel Golden, a distinguished research and partnership development manager from Nottingham Trent University and an

international funding expert specializing in overseas development opportunities and research funding applications. The sessions, conducted from April 11th to April 16th, 2023, were invaluable as Dr. Golden guided Fellows and researchers at MLI through discussions on common mistakes in securing grants, spanning from project inception to final application. Additionally, he provided a comprehensive overview of the international funding landscape and highlighted opportunities for partnerships, including fellowships

- 3) The Grants office team attended and facilitated at The Collaboration for Evidence-based Healthcare and Public Health in Africa (CEBHA+) project hands on grants writing workshop the goal of the training was to provide participants with knowledge and hands-on skills in grants proposal writing. This was intended to create a critical mass of scientists who can write and submit winning grant proposal. Through hands on sessions participants got overview of the core elements of grant writing, gain knowledge and skills for writing grants proposals.
- 4) The office also led a team from the Provost of the College of Health Sciences, Obafemi Awolowo University led by Prof. B Kolawole and Prof. Saidu O. Oseni on the robust experience at Makerere University Lung Institute

regarding sustainable grantsmanship for Research and Development. The office shared its enviable record in championing and coordinating grants at MLI to the Provost. The team also discussed the potential role of the Carnegie-funded IREX Fellowship to build capacity for a Grants Coordination Office at the College in University of JOS Nigeria.

- 5) The office also registered the Institute the EU platforms and MLI received a Participant Identification Code (PIC) that you need to create for any organization applying for European funds. It is a 9-digit number that serves as a unique identifier for legal entities participating in European funding programmes. MLI PIC Number is **881534643**

Journal and Research Conferences (JRC):

During the weekly JRC meetings that take place on Fridays at 7:30 am, we discuss a wide range of new and emerging scientific evidence in lung health related research. This subsequently provides a platform to brainstorm and identify clinical practice and research gaps. We held **39 JRC meetings** out of the planned 44 as some of the Fridays fell on public holidays. The details of the JRC sessions are as detailed below:

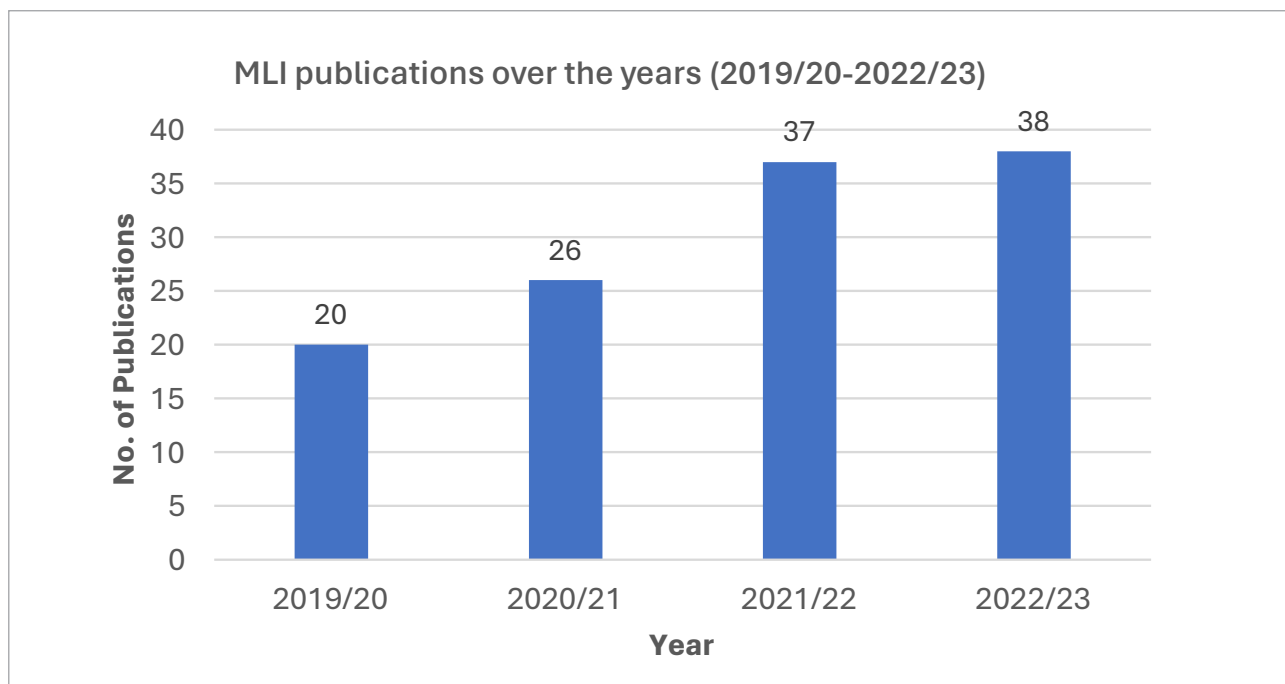
Table 3: List of Journal and Research Conferences (JRCs)

Date	Title	Presenter
1 st July 2022	Evaluation of patients with MDR-TB in Uganda: Current Treatment outcomes	Dr. Adakun Susan
8 th July 2022	Reimagining the status quo: How close are we to rapid sputum-free tuberculosis diagnostics for all?	Samson Omongot
15 th July 2022	The Relationship between Physical Activity and Long COVID: A Cross-Sectional Study	Dr. Alupo Patricia
22 nd July 2022	Parental TB associated with offspring asthma and rhinitis	Dr. Baluku Joseph
29 th July 2022	Pooling sputum for Xpert MTB/RIF and Xpert Ultra testing during the Covid-19 pandemic in Lao People's Democratic Republic	Dr. Muttamba Winters
5 th August 2022	Postmarketing active surveillance of myocarditis and pericarditis following vaccination with COVID-19 mRNA vaccines in persons aged 12 to 39 years in Italy: A multi-database, self-controlled case series study	Dr. Kimuli Ivan
12 th August 2022	Robust IgM responses following intravenous vaccination with Bacille Calmette–Guérin associate with prevention of Mycobacterium tuberculosis infection in macaques	Dr. Kayongo Alex
19 th August 2022	Risk factors for the development of bronchiolitis obliterans in children with severe adenovirus pneumonia: A retrospective study with dose-response analysis	Dr. Maleni Stella
26 th August 2022	Triple test with tumor markers CYFRA 21.1, HE4, and ProGRP might contribute to diagnosis and subtyping of lung cancer	Najjingo Irene
2 nd September 2022	Missed opportunities for diagnosis and treatment in patients with TB symptoms: a systematic review	Dr. Nidoi Jasper
9 th September 2022	Effectiveness of BNT162b2 Vaccine against Omicron in Children 5 to 11 Years of Age	Dr. Nalwanga Damalie
16 th September 2022	Infant BCG vaccination and risk of pulmonary and extra pulmonary tuberculosis throughout the life course: a systematic review and individual participant data meta-analysis	Dr. Nalunjogi Joanitah
23 rd September 2022	Pulmonary Involvement during the Ebola Virus Disease	Bbuye Mudarshiru
7 th October 2022	Preschool Asthma Symptoms in Children Born Preterm: The Relevance of Lung Function in Infancy	Dr. Shema Christine
14 th October 2022	Safety and immunogenicity of VPM1002 versus BCG in South African newborn babies: a randomised, phase 2 non-inferiority double-blind controlled trial	Segawa Ivan
21 st October 2022	The burden of Household Air Pollution in urban slum dwellings within Kampala	Shelton Mariga
11 th November 2022	Knowledge, attitude and practice towards complementary and alternative medicine and associated factors among health care professionals in public health facilities of Hadiya Zone, South Ethiopia	Dr. Alupo Patricia
18 th November 2022	Economic evaluation using dynamic transition modelling of ebola virus vaccination in lower-and- middle-income countries	Dr. Nidoi Jasper
25 th November 2022	Medication-assisted quit rates in participants with smoking-related diseases in EAGLES: Post hoc analysis of a double, randomized, placebo-controlled clinical trial	Dr. Karungi Irene and Shivan Nuwasiima

Friday 20 th January 2023	Different Responses to Pulmonary Rehabilitation in COPD Patients with Different Work Efficiencies	Dr Winceslaus Katagira
27th January 2023	Spatio-temporal trends of air quality in Kampala city 2020-2022.	Mackline Ninsiima
3rd February 2023	Multi-omics analyses of airway host-microbe interactions in chronic obstructive pulmonary disease identify potential therapeutic interventions	Dr. Kayongo Alex
10th February 2023	Elevated Blood Glucose is Associated with Severe Exacerbation of Chronic Obstructive Pulmonary Disease	Dr. Adakun Susan.
17th February 2023	Sociodemographic determinants of intraurban variations in COVID-19 incidence: the case of Barcelona	Dr. Kakame Keith
3rd March 2023	A systematic review of the characteristics of interventions that promote physical activity in adults with asthma	Dr Winceslaus Katagira
10th March 2023	Comparing outcomes of ILD patients managed in specialised versus non-specialised centres	Dr. Sekimpi Maria.
17th March 2023	Evaluation of the Latent Tuberculosis Care Cascade Among Public Health Clinics in the United States	Bbuye Mudarshiru
24th March 2023	Ambient air pollution exposure linked to long COVID among young adults: a nested survey in a population-based cohort in Sweden	Dr. Patricia Alupo
31st March 2023	Diet and Risk of Incident Lung Cancer: A Large. Prospective Cohort Study in UK Biobank	Irene Najjingo
Friday 14th April 2023	Recent Clinical Trials on Natural Products and Traditional Chinese Medicine Combating the COVID-19	Arinaitwe James
Friday 28th April 2023	Statins Associated with Better Long-Term Outcomes in Aged Hospitalized Patients with COPD: A Real-World Experience from Pay-for-Performance Program.	Dr. Adrian Mwota
5th May 2023	Early life exposure to air pollution and incidence of childhood asthma, allergic Rhinitis and eczema.	Samsom Omongot
12th May 2023	Clinical outcome and associated factors of respiratory distress syndrome among preterm neonates admitted to the neonatal intensive care unit of Adama Hospital and Medical College	Shema Christine.
19th May 2023	Safety and Efficacy of Streptokinase in Multiloculated Pleural Effusion in Pediatric Population	Dr.. Stella Maleni
26th May 2023	Comparison of three alternatives for the management of moderate asthma in children aged 6-11 years: a cost-utility analysis.	Dr. Jasper Nidoi
2nd June 2023	Innovative Dynamics for Efficient Conduct Of Clinical Trial Research In Sub-Saharan Africa: A reflective reportbased on MLI experiential clinical trial training	Hamu Joseph Mlyuka
16th June 2023	Tuberculosis detection from chest x-rays for triaging in a high tuberculosis-burden setting: an evaluation of five artificial intelligence algorithms.	Dr. Ddungu Ahmed
23rd June 2023	Respiratory Health and Urinary Trace Metals among Artisanal Stone-Crushers: A Cross-Sectional Study in Lubumbashi, DR Congo.	Dr. Joanitah Nalunjogi
30th June 2023	Obstructive sleep apnea and excessive daytime sleepiness among commercial motor vehicle drivers in Lusaka, Zambia	Dr. Ivan Kimuli

Publications over the years

Over the years, our publications have consistently contributed to the advancement of knowledge and practice in our field. Through rigorous research, innovative studies, and comprehensive analyses, our work has addressed critical issues, informed policy decisions, and influenced best practices. This year, our publications have continued to reflect our commitment to excellence, with a diverse range of topics covered by our expert faculty and researchers. These contributions not only enhance our academic reputation but also underscore our role in driving positive change within our community and beyond.



A total of Thirty-eight (38) publications were made in the period April to June 2023. The target for the year was 25. The details of the publications is as below:

- 1) Distinguishing pulmonary rehabilitation from chest physiotherapy in the African context. Bilungula, Abbi-Monique Mamani, Mark W. Orme, Fanuel M. Bickton, Bruce Kirenga, Jamie Rylance, Ilaria Pina, Sally J. Singh, and Wincelaus Katagira. *Journal of the Pan African Thoracic Society* 4, no. 2 (2023): 101-106.
- 2) Risk factors for disruptions in tuberculosis care in Uganda during the COVID-19 pandemic Jackson, Peter D., Stella Zawedde Muyanja, Isaac Sekitoleko, Mudarshiru Bbuye, Madeline Helwig, Roma Padalkar, Mariam Hammad, Dennis Hopkinson, and Trishul Siddharthan. *PLOS Global Public Health* 3, no. 6 (2023): e0001573.
- 3) Leveraging the structures of the COVID-19 pandemic response for successful control of Ebola in Uganda. Kyobe Bosa Henry, M. Kariuki Njenga, Misaki Wayengera, Bruce Kirenga, Winters Muttamba, Jeanette Dawa, Robert F. Breiman et al. *Nature Medicine* (2023): 1-2.
- 4) Implication of the Global Initiative for Chronic Obstructive Lung Disease 2023 report for resource-limited settings: tracing the G in the GOLD. Kirenga, Bruce J., Patricia Alupo, Frederik van Gemert, and Rupert Jones. *European Respiratory Journal* 61, no. 6 (2023).
- 5) Cross-sectional validation of the COPD Assessment Test (CAT) among chronic obstructive pulmonary disease patients in rural Uganda Batte, Charles, Andrew Weil Semulimi, Ronald Kasoma Mutebi, Nelson Twinamasiko, Sarah Racheal Muyama, John Mukisa, Immaculate Atukunda et al. *PLOS Global Public Health* 3, no. 6 (2023): e0002013.

- 6) "Respiratory Health and Cities." Mohan, Anant, Patricia Alupo, Fernando J. Martinez, Renata G. Mendes, Jing Zhang, and John R. Hurst. *American Journal of Respiratory and Critical Care Medicine* ja (2023).
- 7) Performance and usability of a new mobile application for measuring respiratory rate in young children with acute lower respiratory infections.
Spurr, Rebecca, Erin Ng, Frankline M. Onchiri, Ben Rapha, Joyce Nakatumba-Nabende, Margaret Rosenfeld, Irene Najjingo, James W. Stout, Rebecca Nantanda, and Laura E. Ellington. *Pediatric Pulmonology* (2022).
- 8) A systematic review of strategies adopted to scale up COVID-19 testing in low-, middle-and high-income countries.
Muttamba, Winters, Bernadette Ann-Marie O'Hare, Vibhor Saxena, Mudarshiru Bbuye, Parul Tyagi, Andrew Ramsay, Bruce Kirenga, and Wilber Sabiiti. *BMJ Open* 12, no. 11 (2022): e060838.
- 9) Improving access to affordable quality-assured inhaled medicines in low- and middle-income countries. M. Stolbrink, M. J. Chinouya, S. Jayasooriya, R. Nightingale, L. Evans-Hill, K. Allan, H. Allen, J. Balen, T. Beacon, K. Bissell, J. Chakaya, C-Y. Chiang, M. Cohen, G. Devereux, A. El Sony, D. M. G. Halpin, J. R. Hurst, C. Kiprop, A. Lawson, C. Mace, A. Makhanu, P. Makokha, R. Masekela, H. Meme, E. M. Khoo, R. Nantanda, S. Pasternak, C. Perrin, H. Reddel S. Rylance, P. Schweikert, C. Were, S. Williams, T. Winders, A. Yorgancioglu, G. B. Marks, K. Mortimer. *INT J TUBERC LUNG DIS* 26(11):1023-1032. <http://dx.doi.org/10.5588/ijtld.22.0270>
- 10) Cardiovascular risk factors among people with drug-resistant tuberculosis in Uganda
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PROJECT HIGHLIGHTS

Clinical trials On Natural Therapeutics (CONAT)

After the successful conduct of the UBV-01N trial (First trial on natural therapeutics in Uganda), The scientists that were involved in the UBV-01N trial conceived the idea of CONAT, and proposed it to the Hon. Minister of STI-OP, Dr. Monica Musenero Masanza, in mid-2020 with the goal to conduct research that will accelerate the notification and licencing of Uganda's natural medicines in order to improve the health of Ugandans and to harness the economic potential of natural medicines.

CONAT is currently conducting a second clinical trial which is titled, "Safety, pharmacokinetics, and preliminary efficacy of herbal products for the treatment of acute respiratory viral infections, including SARS-COV2 in Uganda; a phase 2a, open-label clinical trial." In this trial, CONAT is trying two Investigational Medicinal Products (IMPs) Tazcov from Busitema University, and Vidicine from the Kazire Products. It is also ready to commence the third clinical trial next year in 2024.

The project is funded by the Government of Uganda through the Ministry of Science, Technology, and Innovation, Office of the President (STI-OP). It is coordinated by the Makerere University Lung Institute in partnership with the Makerere University College of Veterinary ANimal Resources and Biotechnology (COVAB); Natural Chemotheapeutics Research Institute (NCRI), Uganda Virus Research Institute (UVRI); and the Directorate of Government Analytical Laboratories (DGAL).



Figure 1: A CONAT Nurse and PI (Prof. Bruce Kirenga) enrolling first study participant

ALRITE Study



Figure 2: ALRITE Team - Dr. Rebecca Nantanda -Senior Research Scientist & Local PI; Dr. Harriet Nambuya - Technical Expert, Jinja RRH, Dr. Phiona Ekyaruhanga, Ms. Irene Najjingo; Ms. Susan Namusoko and Dr. Laura Ellington - Study PI

ALRITE (Acute Lower Respiratory Illness Treatment Evaluation) is a point-of-care mobile health application intended to guide the diagnosis and management of Acute Lower Respiratory Illnesses (ALRI) in young children in Uganda. The application is being developed by an international multidisciplinary team and is based on the Integrated Management of Childhood Illnesses (IMCI). The ALRITE project is aimed at developing and refining the ALRITE tool in order to make it acceptable, feasible, scalable, and useful in improving the diagnosis and management of children with ALRI in Ugandan primary care health facilities.

To fast-track activities of the study Laura Ellington the Principal Investigator of ALRITE made a courtesy visit to the institute to start off data collection for the phase 3 where she participated in training of health workers on the use of the ALRITE tool and focus group discussions on challenges of the tool.

Tokomeza Ebola Trial (TEV)

With expertise showcased by clinicians and researchers from previous case management incidents like COVID-19, Makerere University Lung Institute was selected by the Ministry of Health to lead the Tokomeza Ebola Vaccine Trial in Uganda from September 2022 to January 2023. The Tokomeza Ebola vaccine trial was a randomized open-label trial that aimed to determine the efficacy of three candidate Ebola vaccines (rVSV, cAd3, cAdOx1) against the Sudan Ebola Virus Disease (SUDV).

The ring vaccination strategy was employed, targeting the recent contacts of an index case. This approach was intended to protect the

vaccinated individuals or create a small buffer zone of immunized people to limit the propagation of the infection. The potential for controlling the Ebola outbreak in Uganda, regardless of vaccination, provided an ethically justifiable reason for

implementing the deferred vaccination arm, mitigating any presented risks. In contrast, randomized trials in the general population, or groups not close to a recent case, would require large populations and extended periods to generate results.



Figure 3. The minister of Health, Uganda Dr. Jane Ruth Aceng (In Yellow), the WHO Country Director Dr. Yonas Woldemariam Tegegn pay a courtesy visit to MLI, to assess preparedness to carry out Ebola Trial

Research Awards

Dr. Rebecca Nantanda wins the UKRI African Research Leadership Award 2023



Figure 4: Dr. Rebecca Nantanda, Senior Research Scientist

Dr. Rebecca Nantanda, Senior Research Scientist at the Makerere University Lung Institute won the UKRI African Research Leadership Award 2023. Through this award, Dr. Nantanda will investigate and develop different approaches to improve Asthma care and outcomes.

Prof. William Worodria wins Philip Hopewell Prize for Leaders in Global Respiratory Health



Figure 5: Prof. William Worodria, Senior Research Scientist and Chairperson, Institute Technical Board

Prof. Worodria won the Philip Hopewell Prize for Leaders in Global Respiratory Health. The Philip Hopewell Prize for Leaders in Global Respiratory Health is an ATS global research award in recognition of Dr. Philip Hopewell. Dr. Hopewell for many years served patients and the medical research community worldwide, and his contributions to the development of guidelines and policies are exceptional. In recognition of his lifelong service the Phillip Hopewell Prize for Leaders in Global Respiratory Health was established.

Prof. Worodria is the second recipient of this award following Dr. Julina Ferreira, PhD Associate, Professor of Pulmonary and Critical Care Medicine at the University of Sao Paulo Medical school in Brazil



Clinical Services

The clinic has been grappling with space constraints and expansion plans have been considered. The clinic has added two extra rooms. These are already functional and house the pulmonary functioning testing laboratory and the other will house the clinical laboratory.

A total of Three thousand seven hundred ninety-six patients were received in the year. A total of One thousand seventy-two different diagnostic tests were conducted in the year. Refer to the tables and figures below for the detailed performance of the clinic in year.



Table 4: Patient attendance in numbers (July 2022 - June 2023)

Month	New	Review	Sub-total
July 2022	147	199	346
August 2022	140	177	317
September 2022	117	177	294
October 2022	147	190	337
November 2022	116	155	271
January 2023	198	155	353
February 2023	226	166	392
March 2023	202	207	409
April	119	174	293
May	162	260	422
June	159	203	362
Total			3796

Patient Numbers July 2022 - June 2023

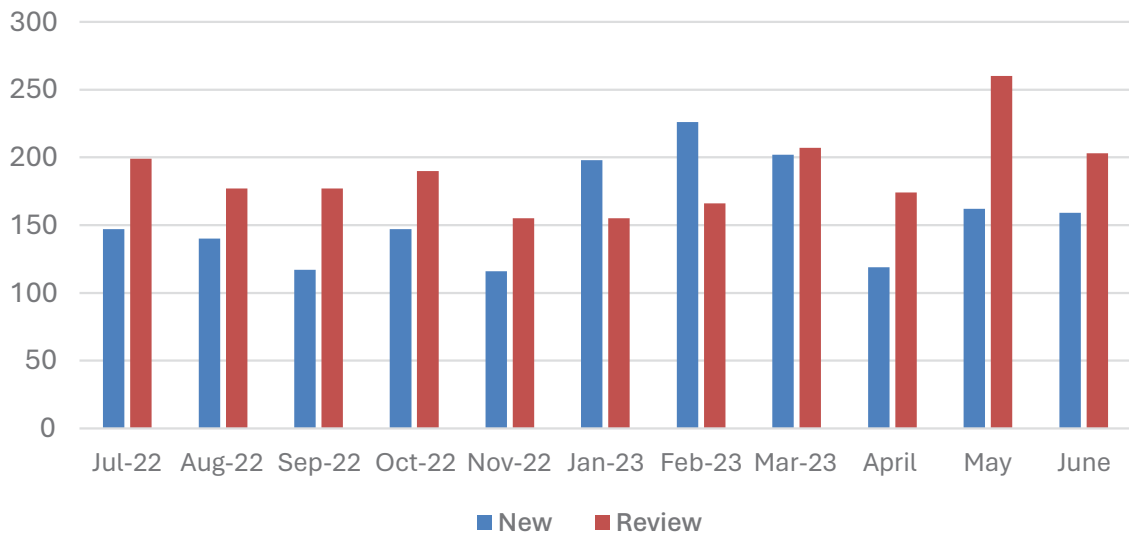


Figure 6: Patient Numbers July 2022 - June 2023

Table 5: Number of procedures conducted in the year

MONTH	SPIROMETRY	WALK IN SPIRO	SLEEP TESTS	BRONCS	VACCINATIONS	ECG/ ECHO	FeNO	SPT	P SESSIONS	R COVID-19 TEST
Jan	92	36	1	0	00		1		0	
Feb	69	43	0	5	02		2		1	
Mar	119	52	2	6	01		0		5	
April	127	41	2	4		4	2	0	0	0
May	182	68	2	0		0	0	0	1	33
June	109	39	1	9		9	0	0	0	2
Total	698	279	8	24	3	13	5	0	7	35

Tests conducted July 2022 - June 2023 Chart Title

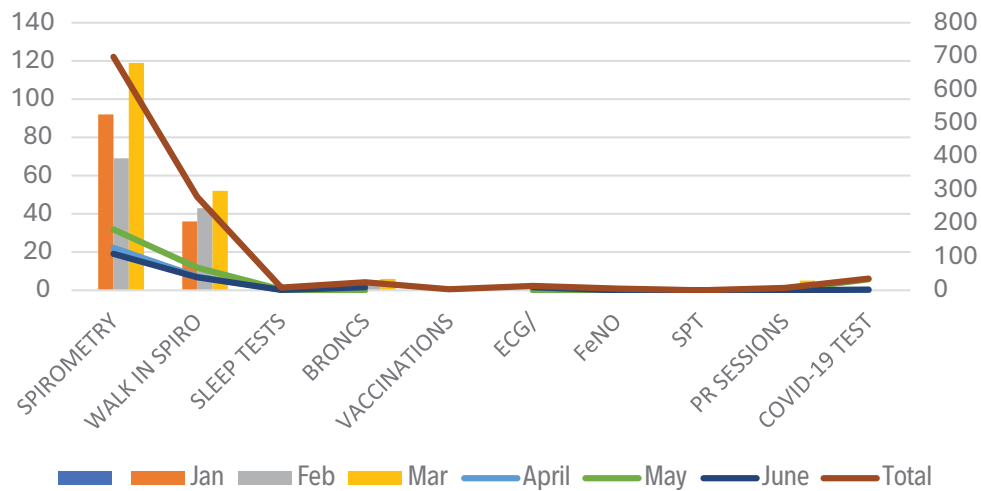


Figure 7: Tests conducted July 2022 - June 2023

Bronchoscopy Training

Dr. Adrian Mwota, a junior physician at the Institute, participated in the bronchoscopy training conducted in early April 2023 at the clinic by a team of experts from John Hopkins University. His experience in the training is detailed below.

Participating in the bronchoscopy training proved to be an enriching experience, providing a comprehensive understanding of this crucial diagnostic and therapeutic tool in pulmonary medicine. The sessions focused on procedural techniques and clinical applications associated with bronchoscopy, emphasizing key aspects.

The training initiated with an in-depth exploration of respiratory tract anatomy, bronchoscope handling, and intricate airway navigation. This foundational understanding enabled effective maneuvering within the respiratory system.

Emphasis was placed on comprehending the indications and contraindications for bronchoscopy applications, ensuring safe and appropriate clinical practice.

The hands-on experience during practical sessions was invaluable, allowing participants to apply theoretical knowledge practically. This practical component facilitated proficiency in maneuvering bronchoscopes under supervision. Additionally, the engaging session on anesthesia preparation for bronchoscopy enhanced comprehension of the procedure.

In terms of recommendations, the introduction of simulation tools or dummy sessions would greatly benefit continuous practice, reinforcing skills post-training. Additionally, proposing refresher courses every three months could prove advantageous, enabling participants to stay updated on emerging techniques and technologies in bronchoscopy.

The bronchoscopy training significantly improved participants' knowledge and skills, ensuring the ability to conduct safe and effective procedures. It laid a solid foundation for future work in this specialized field of medicine. Heartfelt thanks to the instructors for their passion and commitment throughout the training.



Figure 8: LIC clinical team along with trainers from John Hopkins University conducting a bronchoscopy training

DEPARTMENT OF TRAINING AND EDUCATION

During the period from July 2022 to November 2023, the Department of Education and Training carried out its mandate to design, implement, and monitor training and education programs at the Institute. These initiatives were aimed at enhancing care for individuals with lung diseases and promoting health to prevent such diseases. The following is a summary of the activities implemented during this timeframe.

The department organized monthly virtual sessions, achieving a 100% completion rate with a total of 11 sessions conducted. A summary of these sessions is provided below.



Table 6: Day of Lung Sessions held in the year

Date	Topic	Presenter	Moderator
25 th January 2023	Approach to diagnosis and Management of Unexplained Chronic Cough	Dr. Bruce J. Kirenga	Prof. John Hurst
22 nd February 2023	Pulmonary complications in children with Sickle Cell Disease (SCD): Impact on Lung Function	Dr. Rebecca Nantanda	Dr. Kasirye Phillip Gitta,
15 th March 2023	Advancements in DR TB treatment.	Laura Rosu	Dr. Deus Lukoye
19 th April 2023	The approach to evaluation and management of a child with cough.	Dr Hellen Tukamuhebwa Aanyu	Dr. Elias Kumbakumba
31 st May 2023	COPD phenotypes and treatment updates	Dr. Trishul Siddharthan	Dr. Patricia Alupo
27 th June 2023	Climate Change and Respiratory Health: Understanding the Linkages and Implications for Health.	George William Omony.	Dr. Patricia Alupo and Dr. Ivan Kimuli
July 2022	COPD Endotypes and precision therapies	Trishul Siddhartun	Dr. Patricia Alupo
August 2022	The role Biologic therapy in management of adult Asthma	Richard Silverman, MD FCCP/ DR	

Date	Topic	Presenter	Moderator
September 2022	Screening, diagnosis and treatment of Chronic Respiratory Diseases	Dr. Alupo Patricia	Dr. Rebecca Nantanda
October 2022	Immunophenotypic characterisation of Airway Microbiome to underpin Immunoprotective versus susceptibility signatures	Dr. Alex Kayongo	Dr. Haruna Muwonge
November 2022	Reimagining the status quo: How close are we to rapid sputum-free tuberculosis diagnostics for all?	Prof. Frank Cobelens - Executive Director Amsterdam Institute for Global Health and Development	

Dr. Rebecca Nantanda delivered a scientific session on practical approaches to the management of a child with acute asthma exacerbation. The presentation took place in commemoration of World Asthma Day and was specifically organized for members of the Busoga Health Forum. The session occurred on the 5th of May and drew attendance from 306 individuals, including clinicians, public health providers, and members of the general public.

A in-person session on the fundamental principles of grant writing took place with the overarching goal of aiding research fellows and scientists in responding to grant calls by crafting competitive proposals, thereby

fostering their research career growth. Dr. Willy Ssengooba, a Senior Research Scientist at MLI, facilitated the session, which occurred on May 25, 2023, and was attended by 15 researchers. The plan to conduct one session every three months was successfully achieved during this quarter, achieving a 100% completion rate.

Besides the above, a training for primary care health workers including medical doctors, clinical officers, nurses and pharmacy technicians/dispensers from Nakaseke and Atatur general hospitals was conducted on diagnosis and management of asthma and COPD under the PEN Plus project.

CAPACITY BUILDING

INTERNSHIP AT MLI

Nuwasiima Shivan

I am Nuwasiima Shivan, currently pursuing a Master of Science in Clinical Epidemiology and Biostatistics at Makerere University, School of Medicine. My tenure as a health research intern at Makerere University Lung Institute (MLI) proved to be incredibly enriching, igniting my passion for health research.

Throughout my internship, I gained vital skills that significantly enhanced my research capabilities. While working on a project focused on factors associated with post-COVID-19 symptoms among patients diagnosed with post-COVID-19 at MLI, I acquired proficiency in using the Kobo data collection tool, improved my data management skills, and elevated my analytical abilities.

Engaging with MLI's research fellows and participating in weekly journal clubs broadened my horizons on current research trends and methodologies. These interactions and sessions provided valuable insights into pressing health issues requiring immediate research attention.

Importantly, this internship became a stepping stone for a job offer from the MakNCD research team. I now serve as an intern officer under the PEER-COVID 19 project, allowing me to apply the knowledge gained in my academic pursuits to real-world scenarios, significantly advancing my career path as an aspiring Epidemiologist and biostatistician.

Overall, my time at MLI has been transformative, solidifying my ambition for a career in health research and expanding my global health perspective.



Andrew Gombya

I am Andrew Edward Gombya, a student at Kyambogo University pursuing a Bachelor of Business Administration. My internship was attached to the Procurement Unit, a pivotal department at the Makerere University Lung Institute (MLI).

During my internship, I undertook various responsibilities within the Procurement Unit, gaining practical insights into the real-world challenges associated with applying theoretical knowledge. These tasks included updating procurement records, drafting and sending RFQs and Purchase Orders, liaising with suppliers based on different quotations, maintaining records, forwarding invoices to finance, participating in stocktaking, and documenting minutes for the Procurement Committee meetings.

As a novice to professional environments, this placement provided me with early exposure to a spectrum of activities integral to a career in procurement and a deeper understanding of the workplace. MLI played a crucial role in developing critical skills necessary for actively observing and analyzing challenges within the scope of procurement duties and responsibilities.



Figure 9: Andrew Gombya (C), Rosemary Kaitesi (L), Diana Namaala (2nd -L) and Prof. Bruce Kirenga verifying donation of spirometers from Vitalography

The supportive environment at MLI transcended any distinctions between interns and staffs, making me feel like a valued member of the MLI family throughout my internship. The experience has equipped me with practical tools, a deeper understanding of procurement processes, procedural manuals, stock control policies, and ethical conduct in the workplace. It has also provided valuable insights into how to

collaborate with other employees within an organization.

In conclusion, my internship at MLI was an exciting and excellent learning experience. It confirmed my interest in pursuing a career in procurement, particularly in a high-level professional environment like Makerere University Lung Institute.

LIGHT Research Administration and Managers Programme (RAMP)

RAMP is a **training programme** aimed at strengthening capacity of research administrators, managers and finance officers working on research grants. The programme is divided into **3 modules** and **21 subject areas** namely:

- **Administration**, including diary management, minute taking, and travel logistics.
- **Project Management**, including risks management, safeguarding, M&E, and the use of tools such as log frames and Gantt Charts.
- **Financial Management**, including budgeting, forecasting, and reporting.

Three of our staff members had the privilege of attending the RAMP training held in March 2023 in Malawi. This program, facilitated by the LIGHT Consortium, of which the Lung Institute is a part, and the IMPALA Project, spanned a period of three days. The training adopted a participatory approach, with

trainees divided into three groups of seven members each. The sessions involved various activities, including discussions on case scenarios and presentations.

This interactive approach allowed for engagement and fruitful discussions, providing each trainee with the opportunity to share feedback and opinions on different subject areas. Key learning points from the training encompassed effective communication across diverse project teams, teamwork, conflict management, planning, time management, a cultural exchange evening through which the different countries shared on their cultures and traditions.

The success and effectiveness of this training have prompted the Institute to consider implementing a similar program for its administrators and managers. This initiative aims to ensure the smooth operation of activities and enhance project efficiency within the Institute.



Figure 10: MLI team (Dr. Winters Muttamba (L), Ms. Jackline Nakabira (3rd-L), & Mr. Emmanuel Kansiime (3rd-R)) with trainees from Malawi, Nigeria & Kenya at the RAMP training in Malawi, March 2023

STAKEHOLDER ENGAGEMENT

Stakeholder engagement at Makerere University Lung Institute serves as a strategic approach to foster meaningful relationships and collaborations with various individuals, groups, and organizations that have a vested interest in or are affected by the institute's activities.



WORLD TB DAY

The commemoration of World TB and Leprosy Day occurred in Butaleja district on Friday, March 24, 2023. This annual event holds significance as it marks the day in 1882 when Dr. Robert Koch announced his discovery of Mycobacterium tuberculosis, the bacillus responsible for tuberculosis (TB).

Under the theme “Yes, we can end TB in Uganda,” the Ministry of Health - National TB and Leprosy Program (NTLP), in collaboration with implementing partners, organized the event. Stakeholders from various sectors participated, including representatives from government ministries, district officials, Ministry of Health representatives, national and district hospital officials, health workers, implementing partners, university officials, secondary and primary school learners, and local council officials.

The main activities during the celebrations included:

Community outreach: Sensitization of Boda-Boda riders on the awareness and importance of early TB screening, testing, and treatment.

Awareness campaign: Mass sensitization was done on the institute's location and the services it offers. Additionally, reflector jackets were distributed to boda boda riders at surrounding stage points where the

World TB Day Celebrations were held.

These activities aimed to raise awareness, provide information, and contribute to the broader efforts to combat tuberculosis in Uganda. The involvement of various stakeholders underscores the collaborative approach required to address public health challenges effectively.



Figure 11: Mr. Samson Omogot and Mr. Denis Muwonge at the World TB Celebrations in Butaleja District, March 2023



Figure 12: Mr. Samson Omongot with a team of boda boda riders in Butelaja district after distribution of reflector jackets

WORLD ASTHMA DAY

To mark World Asthma Day, the institute organized a webinar that garnered participation from over 200 attendees. The session centered around the theme “Asthma and Air Pollution: What you need to Know?” This initiative aimed to raise awareness, disseminate crucial information, and foster understanding regarding the intersection of asthma and air pollution among a diverse audience. The substantial turnout reflects the importance and interest in addressing these critical health issues.

World Pneumonia Day

Dr. Nalwanga Damalie shared valuable insights on the demand for oxygen in managing pneumonia during a session sponsored by Merieux Foundation and Every Breath Counts. This initiative took place in commemoration of World Pneumonia Day. Dr. Damali’s contribution added to the awareness and understanding of the critical role oxygen plays in the management of pneumonia, contributing to the broader efforts to address respiratory health challenges



Figure 13: Dr. Damalie Nalwanga interacting with participants after a session on managing pneumonia to commemorate the World Pneumonia Day, November 2022

National Day of Physical Activity

The Institute actively participated in the commemoration of the National Day of Physical Activity organized by the Ministry of Health. This event aimed to raise awareness about non-communicable diseases, including chronic respiratory diseases, and underscored the role of physical activity in both primary and secondary prevention.

The day's activities included a march/walk around Kampala city, in which 12 individuals from MLI actively participated. Additionally, MLI organized an exhibition that featured health education on lung health, screening for Chronic Obstructive Pulmonary Disease

(COPD), Spirometry, Sleep, and COVID-19 testing.

A total of 37 individuals (29 males and 8 females) availed themselves for screening during the exhibition. Among them, 7 were eligible for Spirometry and underwent the tests. Furthermore, 3 individuals met the criteria for COPD and were referred to the clinic for clinical management. Eight individuals were identified as eligible for sleep tests and were similarly referred to the clinic for further evaluation and management.

This active participation and comprehensive screening efforts during the National Day of Physical Activity contributed to raising awareness and addressing respiratory health concerns in the community.



Figure 14: L-R, Mr. Emmanuel Kansime .M, Mr. Isaac Kakooza, Ms. Immaculate Akugizibwe, Ms. Sarah R. Muyama, Prof. Bruce J. Kirenga, Dr. Ivan Kimuli and Mr. Simon Mugambe at the National Day of Physical Activity, Kololo Independence Grounds, June 2023

OTHER ACTIVITIES

Air pollution and health workshops

Dr. Rebecca Nantanda, a senior researcher at the Institute, actively engaged in various events related to environmental and urban health issues. She attended a presentation on traditional cooking and its impact on health, which was delivered to stakeholders from Kampala Capital City Authority, Ministry of Energy, Ministry of Environment, and others. The workshop, organized by the International Council for Local Environment Initiatives (ICLEI) Africa, focused on enhancing access to clean cooking for the urban poor residing in informal settlements.

Furthermore, Dr. Nantanda participated in a panel discussion on Air Quality and urban health in Kampala as part of the activities for the launch of the Kampala car-free day. Additionally, she contributed to a panel



discussion on Integrating air pollution and health data for evidence-based action, organized by the Health Effects Institute at Sheraton Hotel Kampala.

Dr. Nantanda's active involvement in these events underscores the Institute's commitment to addressing environmental and health challenges, especially in urban settings. These engagements contribute to the ongoing efforts to promote clean and healthy environments in urban areas.



Figure 15: Panel discussion on integrating air pollution and health data for evidence-based action

ACACIA Study Dissemination

The dissemination meeting had the presence of Commissioner Non-Communicable Diseases, Dr. Gerald Mutungi, who pledged to leverage the findings to enhance asthma care in Uganda. The shared findings received extensive coverage across various media platforms, including radio, television, and online newspapers, thereby reaching a broader audience and contributing to public awareness about asthma care in the country.

MEDIA ENGAGEMENTS

Dr. Simon Walusimbi featured on a television talk show on NBS TV to discuss the release of the ACACIA Study findings. During the show, Dr. Walusimbi presented and discussed the key findings from the ACACIA Study, providing valuable insights and information to the audience. This initiative on NBS TV served as a platform to disseminate the study's results and engage the public in a broader discussion about the relevant research.



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High Prevalence of Undiagnosed Asthma Found Among Secondary School Students

Health Kampala, Uganda

According to Dr Rebecca Nantanda, a consultant paediatrician and lung expert who led the study team, only 33.9 per cent of those that screened positive knew they were living with asthma and the majority were unaware despite having symptoms.

News National Education Insight World

59% of asthma cases in children not diagnosed, says report

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59% of severe asthma cases in children are undiagnosed – Report

by **Juliet Nalwooga** — December 1, 2022 in **Health**



Ms. Rebecca Nantanda, the lead research scientist for the project. PHOTO/Juliet Nalwooga

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#NBSLiveAt1 #NBSUpdates



1:29 PM · Nov 30, 2022

Table 7: Table showing the different media engagements held in the year

No	Date	Topic	Presenter	Media station
1.	4 th April 2023	Prolonged cough and Covid 19	Prof. Bruce Kirenga	NTV
2	5 th April 2023	Integrating air pollution and health data for evidence-based action.	Dr. Rebecca Nantanda	This was a plenary discussion at Sheraton Kampala hotel and involved other panellists from cities in South Africa, Nigeria and Uganda. It was organized by Health Effects International in collaboration with AirQo Uganda
3.	29 th April 2023	Asthma	Prof. Bruce Kirenga	NBS
	2 nd May 2023	Air pollution and asthma	Assoc Prof Lynn M. Atuyambe (SPH-MakCHS), Dr. Jessica Nsungwa (MOH), Dr. Wincelaus Katagira (MLI) and Dr. Simon Walusimbi (MLI)	This was a blended (virtual and physical) panel discussion focusing on effects of air pollution on patients with asthma. It was in commemoration of the World Asthma Day
4.	6 th May 2023	Asthma care in adults	Dr. Wincelaus Katagira	Radio One
	8 th May 2023	Air pollution and health (https://www.healtheffects.org/science-on-the-7th)	Dr Rebecca Nantanda Dr Mount Sinai Kravis Children's Hospital	A livestream stream discussion hosted by Health Effects International. The discussion focused on the impact of ambient air pollution on child health in low-income countries like Uganda.

HUMAN RESOURCE

The Institute staff numbers have grown over the years and comprises of clinicians, scientists, administrators and support staff that form the MLI team. With a multidisciplinary workforce, teamwork is the cornerstone of several successful projects facilitating growth and impact in several aspects.



Figure 16: Members of Finance and Administration share a light moment after their monthly meeting

Table 8: Staff Numbers 2017 - 2023

Human Resource Numbers by the years (2017-2023)								
Year	2016	2017	2018	2019	2020	2021	2022	2023
No.	29	63	86	137	107	103	157	119

Table 9: Staff Numbers by Gender

Item	No.
No. of Females	55
No. of Males	62

Makerere University Lung Institute Expansion Project (MEP)

Significant progress has been made in this initiative. Space has been allocated by Mulago Hospital for the Institute's operations. Architectural and structural designs have been developed, and the necessary documentation has been submitted to the Kampala Capital City Authority (KCCA) for approval. This marks a crucial step towards the successful realization of the renovation project, providing a dedicated and suitable space for the Institute's operations.

The MLI Expansion Project has undergone updates, incorporating the MLI-MOH Partnership (MMP) proposal. In this regard, an MMP Committee was formed, comprising representatives from the

Ministry of Health and the Vice Chancellor of Makerere University. Multiple meetings have taken place, resulting in the development of a draft proposal. The meetings held also included benchmarking at various facilities including Joint clinical Research Centre, Uganda Heart Institute, Entebbe Children's Surgical Hospital and CIPLA Quality Chemicals and findings obtained will guide the drafting of a Memorandum of Understanding.



Figure 17: Prof. Bruce J. Kirenga (3rd -L) and Dr. Rosemary Byanyima (3rd-R), Mr. David Nuwamanya (L) and staff from both MNRH & MLI after handover of allocated land to MLI, June 2023



Figure 18: Members of MLI-MOH Partnership Committee





Figure 19: Dr. John O.O. Omagino leading the MMP Committee on a tour of the UHI facilities, May 2023.



Makerere University Lung Institute

Makerere University
College of Health Sciences
P.O. Box 7749, Kampala
New Mulago Hospital Complex,
Upper Mulago Hill Road

Tel: 0414699134
Email: mli@chs.mak.ac.ug
Website: mli.mak.ac.ug
 @Lung_Institute
 maklunginstitute