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JULY JUNE 2023 2024



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Acknowledgment

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.

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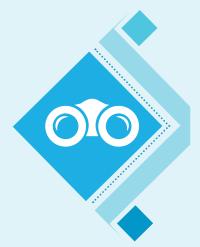
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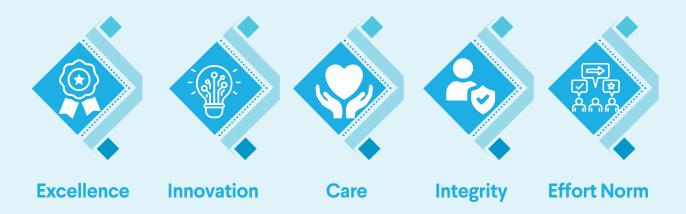
Mission Statement and Values



MLI Mission

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

MLI Core Values





Acronyms/Abbreviations

BOQs: Bill of Quantities CAPIC: Centre for Advanced Pulmonary and Intensive Care **CME:** Continuous Medical Education **CONAT:** Clinical Trials of the Natural Therapeutics Program **COPD:** Chronic Obstructive Pulmonary Disease **CPD:** Continuing Professional Development CRDs: Chronic Respiratory Diseases CTW: Clinical Trials Ward **DOLS** Day of Lung Science **EMR** Electronic Medical Records System IGNITE: Intervention in Urban Public Health Facilities in Uganda JCRC: Joint Clinical Research Centre KCCA: Kampala Capital City Authority LIC: Lung Institute Clinic MakBRC: Makerere University Biomedical Research Centre MakCHS: Makerere University College of Health Sciences **MEP:** The Makerere University Lung Institute Expansion Project MLI: Makerere University Lung Institute MMED: Master of Medicine MoHNTLP: Ministry of Health/The National TB and Leprosy Program MOU: Memorandum of Understanding NCDs: Non-Communicable Diseases PEN-Plus: An integrated care delivery strategy focused on alleviating the noncommunicable disease (NCD) burden among the poorest children and young adults. PIC: Participant Identification Code **RAMP:** Research Administration and Management Programme **TB:** Tuberculosis **UNCDA:** Non-Communicable Diseases Alliance

Executive Summary

From July 2023 to June 2024, the Lung Institute has made significant strides, demonstrating our unwavering commitment to excellence in lung health care, research, education, and community engagement.

The Lung Institute Clinic (LIC) continued to deliver specialized lung care, serving a total of 5,605 patients during this period. The clinic conducted 790 Spirometry tests, leveraging advanced diagnostic equipment to ensure high-quality patient care.

The Operations Department played a crucial role in maintaining compliance with institute policies and managing various operational functions. Key activities included securing space from Mulago National Referral Hospital for the Centre for Advanced Pulmonary and Intensive Care (CAPIC), enhancing the Institute clinic to accommodate the growing number of patients, and overseeing renovations for the Clinical Trials Ward (CTW) at Mulago Specialized Hospital.

The Research and Innovation Department spearheaded the Institute's research efforts, successfully published 18 manuscripts, reflecting the breadth and depth of our collaborative research initiatives and hosting weekly journal and research conferences with 21 presentations by research scientists, fellows, and Master's Degree students.

The Education and Training Department continued to enhance lung disease care and health promotion through comprehensive training programs supporting training of students from Makerere University School of Medicine, enriching them with practical learning experiences.

The Lung Institute hosted the Lung Science and Health Symposium at Skyz Hotel Naguru on November 30, 2023 with a focus on occupational lung health. The event featured keynote talks on workplace respiratory health and presentations on tuberculosis and asthma, marking our eighth anniversary.



Word from the Managing Director

Prof. Bruce J. Kirenga

Dear Esteemed Colleagues and Partners,

t is with great pride and enthusiasm that I reflect on the Lung Institute's achievements over the past year, from July 2023 to June 2024. Our institute has continued to make significant strides in lung health care, research, education, and community engagement, thanks to the unwavering dedication and hard work of our staff and partners.

A highlight of our year was the Lung Science and Health Symposium, held on November 30, 2023. This event brought together key stakeholders, including politicians, board members, researchers, and community leaders, to discuss critical topics such as respiratory health in the workplace, tuberculosis, and asthma. Celebrating our eighth anniversary during this symposium was a testament to our journey and accomplishments over the years.

As we look ahead, I am confident that the Lung Institute will continue to build on this year's successes.

We remain
dedicated
to improving
lung health
through innovation,
collaboration, and
excellence in all our
endeavors. I extend my
heartfelt gratitude to our staff,
partners, and supporters for their unwavering
commitment and contributions to our mission.

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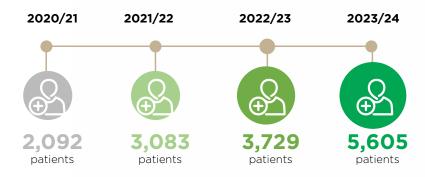
CLINICAL SERVICES DEPARTMENT

The department fulfills its mandate through the Lung Institute Clinic (LIC), which continues to provide specialist lung care to the population. In our effort to modernize and enhance clinic operations, we have successfully rolled out a patient electronic medical records (EMR) system. This digital system is now operational at all patients points of care (triage, consultation, pharmacy), which has helped in streamlining the entire process.

Additionally, the implementation of cashless payment systems, such as MOMO Pay and VISA, has further simplified transactions, making operations more efficient and user-friendly for patients.

The LIC
has seen
a steady rise
in the number
of patients over
the past four years,
reflecting our growing
impact and the trust
placed in our services by the
community.

This increase underscores the success of our digitization efforts and the enhanced accessibility and quality of care provided at the Lung Institute Clinic.



Patients seen at the Lung Institute Clinic

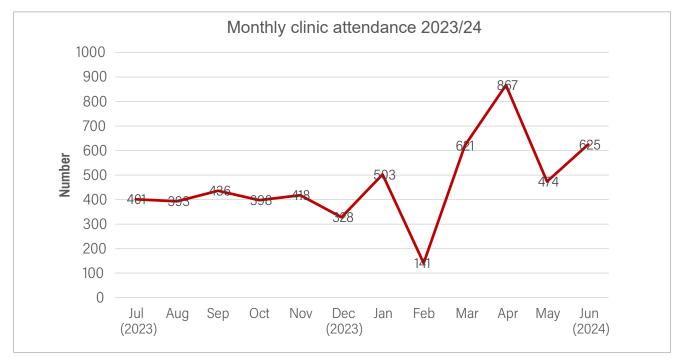
Of the total 5,605 patients in 2023/24, 1696 (30%) were children. Further, nearly sixty percent (70%) of the adult patients were female.





Children vs Adults seen at LIC in 2023/24

Monthly Clinic Attendance for the period July 2023 to June 2024



The table below summarizes the number of various medical tests conducted at the Lung Institute Clinic (LIC) over the past year. This data reflects the commitment of MLI to provide comprehensive lung care and diagnostic services.

Table 1: Tests performed at LIC during 2023/24

Type of test	Number	Relative Frequency (%)
SPIROMETRY	1310	70
COVID-19 TEST	385	21
WALK IN SPIRO	148	8
ECG/ ECHO	13	1
SLEEP TESTS	9	0
FENO	6	0
PR ASSESSMENT SESSIONS	1	0
SKIN PRICK TESTS	0	0
Total	1872	100

Key Achievements:

- > Successful implementation of a patient electronic medical records system for streamlined operations.
- > Increased adoption of cashless payment methods, enhancing financial transactions.
- > Consistent rise in patient numbers, demonstrating increased service demand and trust.

The clinic's focus on digitization and efficient service delivery has significantly contributed to its ability to provide high-quality care and respond effectively to patient needs.

RESEARCH AND INNOVATION DEPARTMENT

The Research and Innovation Department is at the forefront of advancing lung health through cutting-edge research and development. This department not only leads the research initiatives but also oversees critical units, including Quality Control, Data Management, and Grants.

Key Achievements:

1) EU Commission Registration:

 MLI successfully registered with the European Union Commission platforms, receiving a Participant Identification Code (PIC). This milestone opens up significant opportunities for international collaborations and funding.

2) Funding Success:

 Through the Grants Unit, the Institute has secured over 10 funding proposals. This success highlights our strong grant-writing capabilities and our commitment to pursuing impactful research initiatives.

3) Journal and Research Conferences (JRC):

 The department has actively engaged in knowledge dissemination through our weekly Journal and Research Conferences. During this reporting period, 38 presentations were delivered by our research scientists, research fellows, and medical students. These presentations underscore our ongoing commitment to advancing scientific knowledge and fostering a culture of research excellence.

4) Dissemination

 During the reporting period, the department successfully published 22 manuscripts. These publications resulted from research conducted within the Institute and in collaboration with other scientists, reflecting our ongoing commitment to advancing and sharing scientific knowledge.

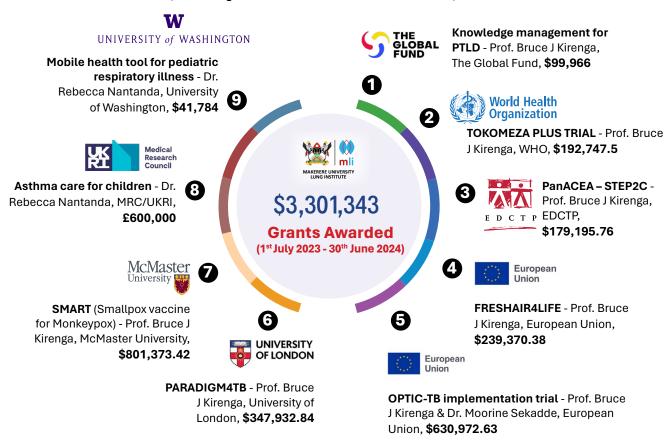
The strides made in Research and Innovation not only enhance our capacity to address lung health challenges but also position MLI as a leading institution in the global research community. By aligning with international platforms and securing substantial funding, we are well-placed to drive impactful research that can lead to significant advancements in lung health.

MLI Grants Profile

The Grants Unit has played a pivotal role in assisting faculty and staff with the development and submission of grant applications. By guiding them through the application processes and requirements, the unit has enhanced their skills for future submissions. A total of 215 funding

opportunities were shared via the website, personalized emails, and departmental outreaches. All signed-up opportunities were submitted through the grant's office, resulting in 9 awarded proposals during this reporting period totaling to \$3,301,343.

Grants Awarded (1st July 2023 - 30th June 2024):



Key Achievements and Grants Status:

- ➤ 24 grant calls were signed up for development and all submitted through the grant's office.
- > 9 proposals were awarded.
- Registration on the European Union Commission platforms was completed, obtaining a PIC number, the Participant Identification Code (PIC) 881534643,

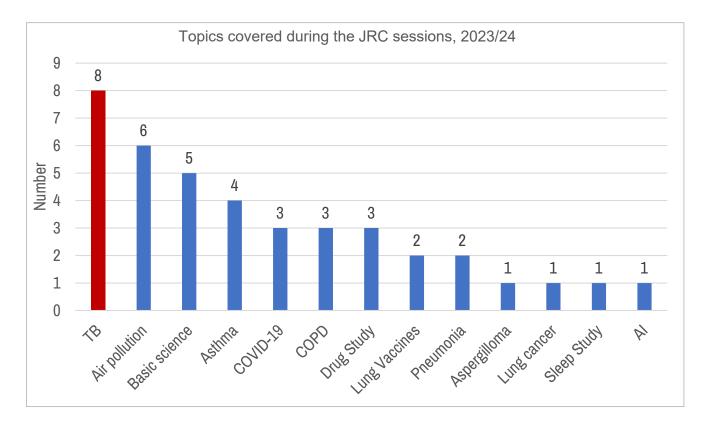
which allows the institute to fully apply for and receive direct EU funding.

MoUs and Service Agreements Signed:

- 1) Pulmonary Function Testing Service Agreement Dr. Ivan Kimuli, MakBRC.
- 2) MOU with Uganda Non-Communicable Diseases Alliance (UNCDA) to address NCDs and establish a National Lung Association in Uganda.

Journal and Research Conferences (JRC) Summary

Below is a summary of the presentations delivered during the reporting period.





EDUCATION AND TRAINING DEPARTMENT

The Department of Education and Training at Makerere University Lung Institute is dedicated to designing, implementing, and monitoring educational programs aimed at enhancing lung disease care and promoting health to prevent lung conditions. Over the past year, the department has significantly advanced its mission by spearheading training initiatives for both MLI researchers and prospective students specializing in lung health.

Key activities during the reporting period from July 2023 to June 2024 include:

- ➤ Training Programs: Developed and delivered targeted training sessions for MLI researchers and students, focusing on advancing knowledge and skills in lung health.
- Day of Lung Science (DOLS) Sessions:

 Monthly educational sessions were held
 to increase awareness and knowledge
 in lung science. The DOLS is CPD
 accredited by the Uganda Medical and
 Dental Practitioners Council. CPD points
 are awarded to participants at the end of
 each session.

The department's efforts have contributed to a broader understanding of lung health and improved the professional development of those engaged in lung disease management and research.



	*	
DOLS Topic		Number
Air pollution		3
Asthma		1
COPD		1
Lung vaccines		1
Lung cancer		1
Occupational Lung Diseases		1
Tuberculosis		1
Post TB Lung Disease		1
Total		10

During this reporting period, the Lung Institute Clinic facilitated various training and education programs to enhance the skills and knowledge of healthcare professionals.

➤ A total of 34 students participated in different training opportunities, including elective placements, clinical rotations, internships, and specialized training:



No.	Type of training	No. of students	Study Course/ Qualification	University/Department	Period
	Elective Placement	3	MMED	Internal Medicine, MakCHS	3 months
	Elective Placement	1	Medicine and Surgery	Family Medicine, MakCHS	3 months
	Clinical Rotations	3	MMED	Internal Medicine, MakCHS	3 weeks
	Clinical Rotations	22	MMED	Paediatrics and Child health, MakCHS	3 weeks
	Internship	3	MMED	MakCHS/Internal Medicine	3 months
	Spirometry Training	2	Nurses	Kiruddu National Referal Hospital	3 weeks

Advanced Training and Mentorship on Asthma and Chronic Respiratory Diseases (CRDs)

significant strides through targeted training and mentorship.

In this reporting period, On March 1, 2024, Dr. asthma. This session aimed were Rebecca Nantanda delivered to enhance the expertise made in advancing the a comprehensive Continuous of medical professionals management of asthma and Medical Education (CME) in handling severe asthma chronic respiratory diseases session at Life Link Hospital cases. Naalya, focusing on the critical management of acute



Dr. Rebecca Nantanda delivering CME at Life Link Hospital.

Additionally, as part of the PEN-Plus project, the MLI team, led by Dr. Nantanda, Dr. Alupo Patricia, and Sr. Susan Aketch, conducted a pivotal mentorship visit to Nakaseke General Hospital. During this visit, they provided CME sessions asthma and Chronic Obstructive Pulmonary Disease (COPD), collaborated closely with onsite teams. and engaged in direct clinical care, thereby bolstering the capacity of Nakaseke Hospital in managing CRDs. This

dual approach of training and hands-on mentorship underscores our commitment to improving respiratory care through education and collaboration.





MLI-LSH SYMPOSIUM DAY

Lung Science and Health Symposium: Celebrating 8 Years of Lung Health Excellence



On November 30, 2023, the Lung Institute hosted the Lung Science and Health Symposium themed "Occupational Lung Health: Protecting our lungs while we work" at Skyz Hotel Naguru, marking a significant milestone, as the Institute celebrated its eighth anniversary. This major engagement was a testament to the Institute's ongoing commitment to advancing respiratory health and fostering a deeper understanding of lung diseases. The symposium attracted a diverse audience, including politicians, media representatives, researchers, government officials, and MLI staff. A highlight of the event was a keynote talk on maintaining respiratory health in the workplace, which underscored the importance of creating healthy work environments to prevent respiratory issues.

In addition to the keynote address, the symposium featured abstract presentations on critical topics such as tuberculosis and asthma. These presentations provided valuable insights into the challenges and accomplishments in the field of respiratory health, reflecting the Institute's dedication to addressing pressing health concerns through research and collaboration.

Years

The symposium was preceded by a proactive community engagement activity on November 29, 2023. Representatives from the Lung Institute engaged with occupational groups such as carpenters, millers, and traffic officers in Kisenyi, Mulago, and Kireka. This initiative aimed to address the specific respiratory health risks associated with these professions and to raise awareness about preventive measures. By directly interacting with these groups, the Institute provided essential information on how to mitigate occupational lung health risks and emphasized best practices for safeguarding respiratory well-being.

Together, these efforts not only celebrated the Institute's eightyear journey but also reinforced its role in promoting respiratory health awareness and advancing the understanding of lung diseases through both academic and community-focused initiatives.



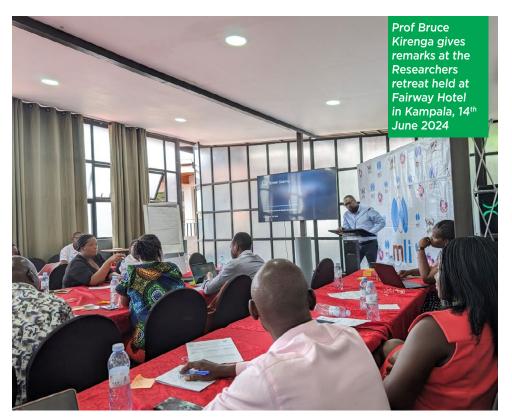




Staff pose for a group photo at the end of the MLI-LSH Symposium.

RESEARCHER'S RETREAT

June 2024, In researcher's retreat was held with an overall aim of supporting the research fellows and scientists understanding the MLI strategy and how they can incorporate it into their research projects. This session was pivotal in aligning individual research efforts with the broader goals of the Institute, ensuring cohesive and impactful scientific contributions.





Training on Science Communication

A comprehensive training session on science communication was conducted for researchers at the institute. This capacity strengthening activity aimed to enhance researchers' abilities to effectively communicate their scientific findings to a broader audience, including policymakers, stakeholders, and the general public. The training covered essential skills such as

simplifying complex scientific concepts, utilizing various communication platforms, and engaging with different audiences. By equipping researchers with these skills, the training ensured that the valuable research conducted at MLI could reach and impact a wider community, fostering greater understanding and support for lung health initiatives.







Research Administration and Management Programme (RAMP) Training in Kampala

The Makerere University Lung Institute (MLI) conducted a Certified Research Administration and Management Programme (RAMP) training. The session was held a session at the Latitude Hotel in Kampala and aimed at equipping administrators and managers with the necessary skills for successful project implementation.

The RAMP training, led by experienced facilitators, focused on enhancing the participants' abilities in key areas of research administration and management. The curriculum covered essential topics such as project management, financial management, administration compliance, and effective communication. By the end of the training, attendees were better prepared to handle the complexities of research projects, ensuring their successful execution and compliance with institutional and regulatory requirements.

RAMP is part of MLI's ongoing commitment to strengthening the administrative and

managerial capabilities of its staff, thereby supporting the Institute's mission to advance lung health research and improve patient care. The training session not only provided valuable knowledge and skills but also fostered a collaborative environment for sharing best practices and networking among peers.









COMMUNICATIONS, PUBLIC RELATIONS AND STAKEHOLDER ENGAGEMENT

The Communications and Public Relations Office plays a crucial role in enhancing the Institute's visibility and showcasing its ongoing work and achievements. During the reporting period, the department actively engaged with various media platforms to promote the Institute's research and initiatives.

Throughout the year, our research scientists and fellows participated in numerous media engagements including interviews, feature articles, and public discussions, all aimed at raising awareness about the Institute's work and accomplishments. The department's strategic media interactions have successfully highlighted the significant contributions of the Institute to lung health and facilitated broader public understanding of our research and activities.

Youth Innovation Expo 2023

The Institute participated in the Youth Innovation Expo at Makerere University grounds on October 6, 2023. Functionality/operation of the Tisch-1000 Air pollution sampler was exhibited by Samson Omongot, a research fellow at the Institute.



MLI website design: We undertook comprehensive overhaul of the website to make it more informative and appealing. During this reporting period, the office finalized the website redesign.

The website was revamped, now encompasses comprehensive range engagements and resources aimed at promoting lung health and advancing our mission. The revamped website serves as a central for information. hub education, and collaboration within the luna health community.

To enhance online presence and engage with a wider audience, the office has implemented strategies to increase visibility on social media platforms. Notably, #MLI4HealthyLungs hashtag was introduced, which is

consistently used in MLIgenerated tweets to unify our messaging and promote healthy lung initiatives.

Health Days: In observance of World Lung Day, MLI hosted a press conference featuring esteemed speakers, Dr. Ivan Kimuli and Dr. Hellen Aanyu. Journalists from print, television, and radio were invited to cover

the event, resulting in widespread media coverage and increased awareness of lung health issues.

Dr. Ivan Kimuli and Dr. Hellen Aanyu addressing the media at the World Lung Day Press Conferenc, September 2023.



TB Marathon: The above activity was conducted at Ministry of Health headquarters on 20th August 2023. It was attended by approximately by 50 participants from the Institute. The activity involved exercising, matching and running around Kampala city. The Institute exhibited pulmonary rehabilitation exercises in treatment of post TB lung diseases.





National Science Week

The Institute took part in the National Science Week organized by the Ministry of Science, Technology, and Innovation. The event was anchored on the theme. "Uganda Tusimbudde:

Our Science-led Journey Institute to identify natural **Towards** Socio-economic Transformation."

Our Clinical Trials on Natural Therapeautics (CONAT) team presented on ongoing research conducted at the

remedies for treatment of respiratory illnesses.

CONAT is funded by the government of Uganda through STI.





MLI joined Buganda kingdom in health engagement for non-communicable diseases. The institute was presented by the lung cancer working group and the event was organised by the Kabaka Foundation at Bulange Mengo, with an aim of the event raising awareness about Non-Communicable disease while proving crucial screening, treatment, and referrals for individuals in need of specialised care.



MLI team facilitated screening for various respiratory conditions with notable focus on lung cancer and over 200 clients were screened.

MLI Team



National TB and Leprosy Science Inaugural Summit



On March 18th and 19th. 2024, the Inaugural National TB and Leprosy Science Summit was hosted by the Ministry of Health's National Tuberculosis and Leprosy Program (MoH/NTLP) at Mestil Hotel. This significant event brought together experts. researchers. and stakeholders discuss to advancements and challenges in the fight against tuberculosis (TB) and leprosy.

The Institute played a pivotal role in the summit, with its researchers taking part in numeral activities, including of abstracts reviewing to ensure the scientific relevance rigor and presentations. Additionally, the Institute provided communication support that facilitated effective information dissemination and engagement among attendees.

At the summit, MLI presented several abstracts, addressing critical issues such as adolescent-friendly TB care and innovative approaches to leprosy management. These presentations provided valuable insights into the current state of TB and leprosy control, highlighting both the progress made and the challenges that remain.

The participation of MLI in summit underscored the Institute's commitment to advancing research and fostering collaborations that aim to improve the diagnosis, treatment, and prevention of TB and leprosy. This engagement not only showcased MLI's research capabilities but also contributed to shaping the national agenda on TB and leprosy control.



WORLD TB DAY 2024

On March 27th, 2024, the Makerere University Lung Institute (MLI) participated in World TB Day celebrations held in Kikagati, Isingiro District. Our team showcased our contributions towards ending tuberculosis (TB) during the event.

We highlighted our work on post-TB Lung Disease and presented the "Improving TB Case Detection Using a Gender-Sensitive TB Screening Intervention in Urban Public Health Facilities in Uganda", (IGNITE Study). Dr. Winters Muttamba, the team lead, emphasized MLI's capacity to address the rising lung disease burden in the country. He also explained how our research can drive the desired changes in TB detection and treatment, contributing to national and global

TB elimination efforts.

The event provided an opportunity to demonstrate our commitment to combating TB and to engage with the community and stakeholders, fostering awareness and support for our ongoing research initiatives.





OPERATIONS DEPARTMENT

The Operations Department has been instrumental in advancing key projects and improving facilities. Notable achievements include the progress of the CAPIC project, significant enhancements to the clinic and entrance, and the establishment of the Clinical Trials Ward. These efforts contribute to the Institute's ability to manage increased

demand and support its growing array of projects and services.

Key projects done during the period included;



1. The Makerere University Lung Institute Expansion Project (MEP)

The Makerere University Lung Institute Expansion Project (MEP) is a groundbreaking initiative designed to address the increasing need for specialized respiratory care in Uganda. This project stems from the critical demand for improved lung health facilities and services due to the rising prevalence of respiratory diseases such as tuberculosis, asthma, cancer, chronic obstructive pulmonary disease (COPD), etc.



Project Details

- Total Cost: USD 11.97million
- Implementation Period: 5 years

Key Components

- **Construction:** A 6-level building designed to house advanced clinical and research facilities.
- Equipment Acquisition: Procuring state-of-the-art medical and research equipment to enhance diagnostic and treatment capabilities.
- Training Programs: Developing comprehensive training programs for pulmonologists and thoracic surgeons to ensure high-quality patient care and support ongoing research efforts.

Progress

• Space Acquisition:

Mulago National Referral Hospital allocated land for the construction of the Centre for Advanced Pulmonary and Intensive Care (CAPIC).

Consultant Engagement:
 A consultant was
 contracted to develop
 architectural plans, Bill of

process KCCA approvals.

• Construction Planning: Preparations are underway to commence construction in the 2024/25 financial year.



2. Facelift of MLI Clinic and Institute Entrance

• Clinic Facelift: This enhanced the clinic to accommodate the growing number of patients, including expanding the waiting area.

Facility Improvements:
 The Makerere University

The Makerere University Estates Department was engaged to create storm water drainage channels and repair parking spaces. Renovations in the institute stores are also ongoing to create office spaces for security and cleaning staff.





MLI Central block before renovation (left) and after renovation (right).

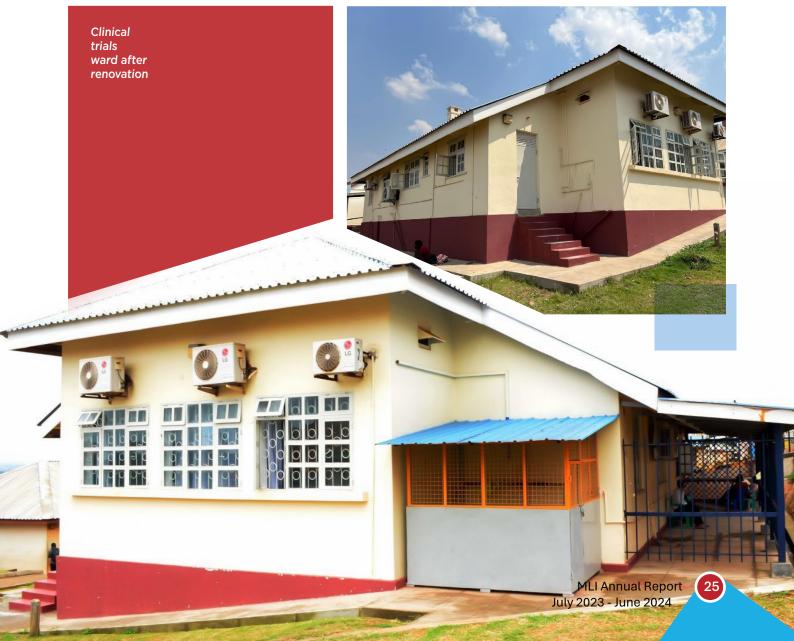
3. Clinical Trials Ward (CTW)

• Renovation:

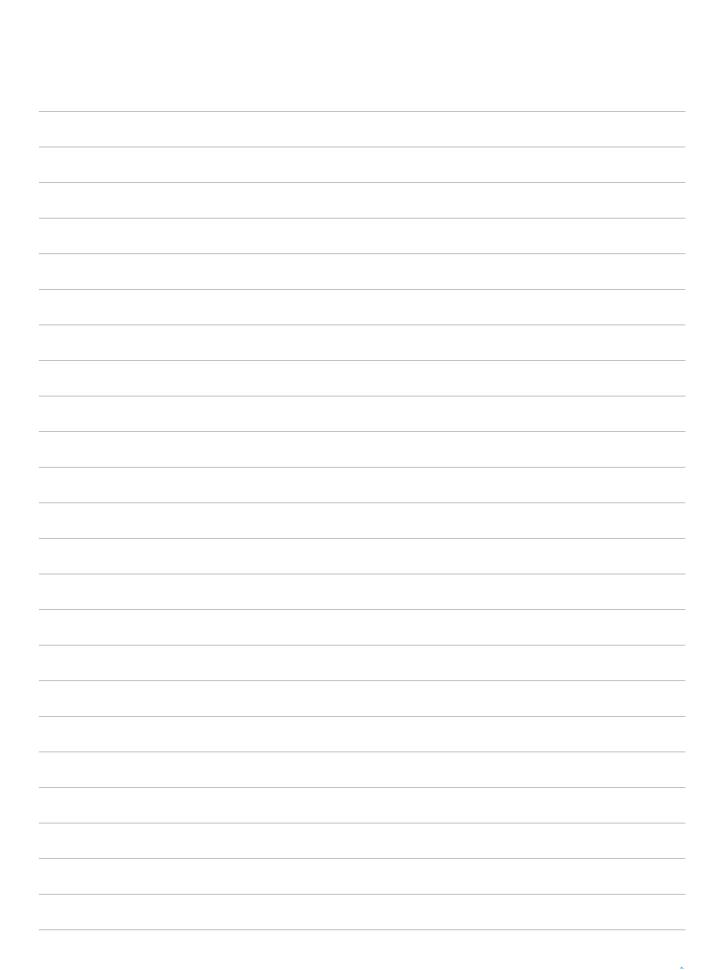
The department oversaw the renovation of space provided by Mulago National Referral Hospital to establish a Clinical Trials Ward. The CTW is actively used by the Clinical Trials of the Natural Therapeutics Program (CONAT).



The inside of











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