



**MAKERERE UNIVERSITY**  
College of Veterinary Medicine, Animal  
Resources and Biosecurity (CoVAB)

# **ANNUAL REPORT 2025**





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## CoVAB LEADERS



Prof. Frank Norbert Mwiine  
**PRINCIPAL**



Assoc. Prof. James Acai-Okwee  
**DEPUTY PRINCIPAL**

## DEANS



Prof. Robert Tweyongyere  
**DEAN, School of Veterinary Medicine and Animal Resources (SVAR)**



Assoc. Prof. Claire M. Mugasa  
**School of Biosecurity, Biotechnical and Laboratory Sciences (SBLs)**

## Heads of Departments



Dr. Dorothy Nampanzira  
**Livestock and Industrial Resources (LIR)**



Prof. Savino Biryomumaisho  
**Veterinary Pharmacy and Clinical Studies (PCS)**



Assoc. Prof. Boniface Julius Okuni  
**Pathobiology (PAB)**



Dr. Sarah Nalule  
**Wildlife and Aquatic Animal Resources (WAAR)**



Dr. Kokas Ikwap  
**Comparative Anatomy and Physiological Sciences (CAP)**



Dr. Charles Drago Kato  
**Biomedical Laboratory Technology and Molecular Biology (BLT)**



Assoc. Prof. Clovice Kankya  
**Biosecurity, Ecosystems and Veterinary Public Health (BEP)**

## Heads of Administrative Units



Richard Byarugaba  
**College Registrar**



Kimera Sylvia Namutebi  
**Human Resource Manager**



Odoch Walter  
**College Bursar**



Mawa Majid  
**Ass. Procurement Officer**



Harriet Musinguzi  
**Communication Officer**



Brook Musinguzi  
**Web Administrator**



Lydia Namugera  
**College Librarian**



## LIST OF ACRONYMS

|            |   |                                                                                                           |
|------------|---|-----------------------------------------------------------------------------------------------------------|
| ADIS       | - | Animal Disease Information System                                                                         |
| AFRISA     | - | Africa Institute for Strategic Services and Development                                                   |
| BAPT       | - | Bachelor of Animal Production Technology and Management                                                   |
| BBLT       | - | Bachelor of Biomedical Laboratory Technology                                                              |
| BBS        | - | Department of Bimolecular Resources & Bio Lab Sciences                                                    |
| BDS        | - | Department of Biotechnical & Diagnostic Sciences                                                          |
| BEP        | - | Department of Biosecurity Ecosystems & Veterinary Public Health                                           |
| BILB       | - | Bachelor of Industrial Livestock Business                                                                 |
| BVM        | - | Bachelor of Veterinary Medicine                                                                           |
| CICSA-E&SA | - | Building Capacity for Innovation and Advancement of Climate Smart Agriculture in East and Southern Africa |
| CIMTRADZ   | - | Consortium for Integrated Management of Transboundary Animal Diseases and Zoonoses                        |
| COHESA     | - | Capacitating One Health in Eastern and Southern Africa                                                    |
| COIL       | - | Collaborative Online International Learning                                                               |
| CoVAB      | - | College of Veterinary Medicine, Animal Resources and Biosecurity                                          |
| ILRI       | - | International Livestock Research Institute                                                                |
| ILRIS      | - | Industrial Livestock Research, Incubation and Skilling                                                    |
| IODeL      | - | Open, Distance and eLearning                                                                              |
| ISAAA      | - | International Service for the Acquisition of Agri-biotech                                                 |
| ITE        | - | Industrial Training and Education                                                                         |
| LIR        | - | Department of Livestock and Industrial Resources                                                          |
| MAAIF      | - | Ministry of Agriculture Animal Resources and Fisheries                                                    |
| MAGBBA     | - | Multisectoral Alliance for Global Biosecurity and Bio economy Advancement                                 |
| MOES       | - | Ministry of Education and Sports                                                                          |
| MSBS       | - | Master of Science in Molecular Biology                                                                    |
| MSLS       | - | Master of Biomedical Laboratory Sciences and Management                                                   |
| NBC        | - | National Biosafety Committee                                                                              |
| PCM        | - | Veterinary Pharmacy, Clinical & Comparative Medicine                                                      |
| PI         | - | Principal Investigator                                                                                    |
| SBLS       | - | School of Biosecurity, Biotechnical and Laboratory Sciences                                               |
| SME        | - | Small and Medium Enterprise                                                                               |
| SVAR       | - | School of Veterinary Medicine and Animal Resources                                                        |

|       |   |                                                        |
|-------|---|--------------------------------------------------------|
| UNCST | - | The Uganda National Council for Science and Technology |
| UVC   | - | Uganda Veterinary Council                              |
| WAAR  | - | Department of Wildlife & Aquatic Animal Resources      |
| WARM  | - | Wildlife and Aquatic Resources Management              |

# MESSAGE FROM THE PRINCIPAL



## **Dear Colleagues, Partners, and Friends of CoVAB,**

It is my honor to present the 2025 Annual Report of the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB). This report reflects our unwavering commitment to advancing veterinary education, research, and innovation, while strengthening our role in national development and global health.

In 2025, CoVAB achieved remarkable milestones. We launched a pioneering taught PhD program in Livestock Development and Planning, a first of its kind in Uganda, designed to blend academic rigor with practical relevance. This program will equip scholars to address

pressing challenges in the livestock sector, enhance food security, and influence policy across the region.

We also celebrated the successful conclusion of the INSSPIRE Project, which enriched our curricula, introduced real-life learning laboratories, and fostered international collaboration across Africa and Europe. This initiative has empowered our students with practical skills to tackle challenges in food systems and climate action, while strengthening our global academic partnerships.

Our scientists advanced climate-smart agriculture research, piloting innovative urban farming practices at Kyakuwa Farm. These included sustainable feed technologies, waste-to-energy solutions, and integrated approaches to herd health and environmental hygiene—demonstrating how veterinary science can drive resilience and sustainability in urban communities.

Meanwhile, the Center for Global Biosecurity and Biomolecular Technology (CeBioTech) led capacity-building programs in biosafety and biosecurity, training laboratory technologists in international standards and emerging fields such as cyber biosecurity. These efforts have strengthened Uganda's preparedness for biothreats and enhanced professional competence across veterinary and biomedical sectors.

These achievements underscore our alignment with Uganda's Vision 2040 and our broader mission of transforming challenges into opportunities for prosperity. As we look ahead, CoVAB remains dedicated to nurturing skilled professionals, driving impactful research, and building partnerships that amplify our contributions to society.

I extend my heartfelt gratitude to our staff, students, alumni, and partners whose support has made these accomplishments possible. Together, we will continue to uphold the values of excellence, integrity, and service that define CoVAB, while charting new paths in veterinary science, livestock development, and biosecurity for Uganda and the world.

Prof. Frank Norbert Mwiine

**Principal, College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB)  
Makerere University**

# 1

## INTRODUCTION





# Chapter One

## 1.0 Introduction

The College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) at Makerere University is committed to advancing veterinary education, research, and community engagement in Uganda. Since becoming a constituent college, CoVAB has expanded its academic programs, strengthened its research capacity, and built partnerships with national and international institutions.

**Education and Training:** CoVAB offers undergraduate and postgraduate programs in veterinary medicine, animal production, and biosecurity. Students gain practical skills through laboratory work, field research, and community-based projects, preparing them to address challenges in animal health and food security.

**Research and Innovation:** The College leads in tackling zoonotic diseases, livestock productivity, and sustainable animal health practices. Its contributions include vaccine development, disease management strategies, and improved breeding techniques.

**Biosecurity and Public Health:** With Uganda's emphasis on food safety and disease prevention, CoVAB has intensified biosecurity education, enhanced surveillance, and advised policymakers on animal health regulations.

**Community Outreach and Partnerships:** Through outreach programs, CoVAB supports farmers and rural communities with veterinary services and technical guidance. Strategic collaborations with government, research

institutions, and international partners have amplified its impact, secured resources and fostered knowledge exchange.

## 1.1 Mission Statement

To drive transformative knowledge, skills, innovations and services for the continuous improvement of society

## 1.2 Strategic Objectives

CoVAB has strategic objectives aimed at transforming challenges in the animal resources sector into economic and livelihood opportunities. Some of its key goals include:

- **Enhancing Biosecurity:** CoVAB is committed to advancing biosecurity measures, recognizing the role of animal resources in harboring germs that can impact global health, security, and economies.
- **Driving Innovation and Research:** The College focuses on applied research and innovation to improve veterinary medicine, biosecurity, and animal resource management.
- **Capacity Building and Education:** CoVAB aims to nurture skilled professionals who are entrepreneurial and capable of creating jobs in the veterinary and animal resource sectors.
- **Strengthening Partnerships:** The institution collaborates with various stakeholders, including government agencies and international research organizations, to enhance knowledge transfer and development.

### 1.3 Strategic Objectives

CoVAB's strategic objectives are designed to transform challenges in the animal resources sector into economic and livelihood opportunities. Some of the key goals include:

- **Enhancing Biosecurity**

The College remains committed to advancing biosecurity measures, acknowledging the critical role of animal resources in harboring pathogens that can affect global health, security, and economic stability.

- **Driving Innovation and Research**

CoVAB prioritizes applied research and innovation to strengthen veterinary medicine, biosecurity, and animal resource management, thereby contributing to sustainable solutions for national and international challenges.

- **Capacity Building and Education**

The College is dedicated to nurturing highly skilled professionals who are entrepreneurial, job creators, and capable of driving growth within the veterinary and animal resource sectors.

- **Strengthening Partnerships**

CoVAB actively collaborates with government agencies, international research organizations, and other stakeholders to promote knowledge transfer, foster development and enhance institutional impact.

### 1.4. Core values

The College is guided by the core values as stated in the University strategic plan, namely;

| Accountability                                                                      | Professionalism                                                                     | Inclusivity                                                                         | Integrity                                                                            | Respect                                                                               |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |

# 2

## TEACHING AND LEARNING



# Chapter Two

## 2.0 Teaching and Learning

The College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) offers nationally and internationally recognized academic programs through its two affiliated schools. It provides a rigorous and engaging learning environment, supported by modern laboratories and outreach training canters that serve as essential platforms for hands-on instruction, research, and innovation. This strong infrastructure helps CoVAB fulfil its mission to produce highly skilled graduates while advancing knowledge and developing solutions that promote sustainable development.

## 2.1. Programs offered at COVAB

In fulfillment of its mandate, CoVAB continues to broaden academic opportunities by introducing programs that address emerging national and global priorities. These initiatives include specialized undergraduate and postgraduate courses designed to equip students with practical competencies, strengthen research capacity, and cultivate innovative thinking. The following section provides a detailed account of the programs offered at both undergraduate and graduate levels.

**Table 2.1: List of programs offers at CoVAB**

| SCHOOL OF VETERINARY MEDICINE AND ANIMAL RESOURCES |                                                                              |                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    | Program                                                                      | Specialization /Tracks                                                                                                                                                                                                                                                                                                                               |
| PHD                                                |                                                                              |                                                                                                                                                                                                                                                                                                                                                      |
| Undergraduate                                      | Bachelor of Veterinary Medicine (BVM)                                        |                                                                                                                                                                                                                                                                                                                                                      |
|                                                    | Bachelor of Animal Production and Management (BAP)                           |                                                                                                                                                                                                                                                                                                                                                      |
|                                                    | Postgraduate Diploma in Livestock Development Planning and Management (GLPM) |                                                                                                                                                                                                                                                                                                                                                      |
| Graduate                                           | Master of Livestock Development and Management                               | i. Animal Product Processing and Safety (MSAP)<br>ii. Livestock Sector Planning and Management (MSLS)                                                                                                                                                                                                                                                |
|                                                    | Master of Veterinary Medicine                                                | i. Comparative Pathobiology and Clinical Diagnostics (MCPD)<br>ii. Companion and Recreation Animal Practice (MCAP)<br>iii. Farm Animal Practice and Herd Health (MFAP)<br>iv. Governance and Administration of Public Veterinary Services (MGAV)<br>v. Pharmaceutical Practice and Regulation (MPPR)<br>vi. Food Animal Health and Production (MVMF) |



|                                                                             |                                                                                                                                                                                                                                               |                                                                                                                                                                                |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                             | Master of Science in Animal Health and Management                                                                                                                                                                                             | i. Wildlife Animal Resource Management (MSWR)<br>ii. Wildlife Tourism and Biosecurity Management<br>iii. Wildlife Medicine (MSWM)<br>iv. Wildlife Aquatic Animal Health (MSAH) |
| PHD                                                                         |                                                                                                                                                                                                                                               |                                                                                                                                                                                |
| <b>SCHOOL OF BIOSECURITY, BIOTECHNICAL, AND LABORATORY SCIENCES, (SBLs)</b> |                                                                                                                                                                                                                                               |                                                                                                                                                                                |
| PHD                                                                         |                                                                                                                                                                                                                                               |                                                                                                                                                                                |
| Undergraduate                                                               |                                                                                                                                                                                                                                               |                                                                                                                                                                                |
|                                                                             | Bachelor of Biomedical Laboratory Technology                                                                                                                                                                                                  |                                                                                                                                                                                |
| Graduate                                                                    | Master of Science in Global Biodiversity and Infectious Diseases Management (MBDM)<br>Master of Science in Molecular Biology (MSBS)<br>Master of Preventive Medicine (MVPM)<br>Master of Biomedical Laboratory Sciences and Management (MSBL) |                                                                                                                                                                                |
| PHD                                                                         |                                                                                                                                                                                                                                               |                                                                                                                                                                                |

## 2.4 Schools, Departments, and Centers

The College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) is made up of two schools, each with a distinct focus on advancing veterinary and biotechnical sciences. This structure provides a clear framework for specialization, enabling the College to deliver targeted academic programs, foster research excellence, and respond effectively to both national and global priorities.

### 2.4.1 The School of Veterinary Medicine & Animal Resources (SVAR)

This school is dedicated to advancing veterinary medicine, animal health, and livestock management. It plays a crucial role in the research and development of disease prevention, animal breeding, and sustainable livestock farming. SVAR contributes to national food security by enhancing animal productivity and health.

### The Departments under SVAR are;

- Livestock and Industrial Resources (LIR)
- Veterinary Pharmacy, Clinical and Comparative Medicine
- Wildlife and Aquatic Animal Resources (WAAR)

### 2.4.2 The School of Biosecurity, Biotechnology and Laboratory Sciences (SBLs)

SBLs is dedicated to biotechnology, biosecurity, and laboratory sciences. The school conducts training and groundbreaking research in disease management, diagnostics, and prevention, including vaccinology. Through edge-cutting technology and innovative tools, the school supports Uganda's biosecurity efforts by providing expertise in zoonotic disease management, pharmaceutical research, and environmental health monitoring. SBLs enhances scientific innovation in molecular biology and genetics, contributing to medical and agricultural advancements.

### The Departments under SBLS are;

- Biomolecular Resources and Bio lab (BBS)
- Biosecurity, Ecosystems and Veterinary Public Health (BEP)
- Biotechnical and Diagnostic Sciences (BDS).

### 2.4.3. Institute and Research Centers

CoVAB comprises one (1) Institute and seven (7) specialized centers. The table below outlines these centers together with their respective areas of focus.

**Table 2.2: Institute and Research Centers in CoVAB**

| No. | Name of Institute/Center                                                                                | Area of focus                                                                        | Target Group                                                   |
|-----|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 1   | Africa Institute for strategic Resource services and development (AFRISA)                               | Comprehensive industrial value chain, Education, and cottage enterprises development | Academia, Community<br>Public-Private Partnerships             |
| 2   | Ruth Keesling wildlife health Extension, research, and Education                                        | Strategic wildlife innovations                                                       | Wildlife community                                             |
| 3   | Center for Global Biosecurity and Bio molecular Technology (CeBioTech).                                 | Bio-risks and bio-threats                                                            | Research Community                                             |
| 4   | Joint National Animal Diagnostics Center(J-NADIC)                                                       | Diagnostic Extension Services. Ticks and tick-borne diseases                         | Farmers<br>Community private sector<br>Learners<br>Researchers |
| 5   | Walter Reed Project Laboratories for Emerging Infectious Diseases                                       | Avian Influenza                                                                      | Community<br>Researchers                                       |
| 6   | Nakyesasa Incubation Center for Industrial Livestock Research and Business Innovations, Wakiso District | Industrial Livestock                                                                 | Community<br>Farmers<br>Researchers                            |
| 7   | Buyana Stock Farm, Mpigi District                                                                       | Field Practical Teaching and Learning                                                | Farmers<br>Learners<br>Researchers                             |
| 8   | Ngoma Anti-Tick Vaccine Clinical Trial site, Nakaseke District                                          | Anti-Tick Vaccine Clinical Trial Site                                                | Researchers                                                    |

|   |                                                 |                                                                                                                                                                                                                                                                                  |                                    |
|---|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 9 | Tropical Diseases and Vector Control Laboratory | Ticks & Tick-Borne Diseases Control, Genomics & Vaccine Research, Antimicrobial and anthelmintic resistance monitoring and action<br>Neglected animal diseases and zoonoses control<br>Pharmaceutical Research and Clinical Trials<br>Pollinator Protections and Insect Research | Farmers<br>Learners<br>Researchers |
|---|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|

## 2.2 Student enrolment as of December 2025

Covab registered a total enrollment of 821 students 528 males and 293 females

**Table 2.3: 2025/2026 undergraduate student enrolment as of 31st December 2025**  
**2023/2024 student enrolment as of December 2024**

| CoVAB End of December 2025 |       |     |        |      |        |
|----------------------------|-------|-----|--------|------|--------|
| No.                        | Progm | Yr. | Enrol. | Male | Female |
| 1                          | BLT   | 1   | 75     | 39   | 36     |
|                            |       | 2   | 56     | 36   | 20     |
|                            |       | 3   | 79     | 59   | 20     |
| 2                          | BILB  | 1   | 26     | 13   | 13     |
|                            |       | 2   | 29     | 19   | 10     |
|                            |       | 3   | 32     | 18   | 14     |
| 3                          | BAP   | 1   | 28     | 14   | 14     |
|                            |       | 2   | 19     | 13   | 6      |
|                            |       | 3   | 27     | 19   | 8      |
| 4                          | MVM   | 1   | 59     | 44   | 15     |
|                            |       | 2   | 37     | 24   | 13     |
|                            |       | 3   | 26     | 14   | 12     |
|                            |       | 4   | 44     | 35   | 9      |
|                            |       | 5   | 56     | 32   | 24     |
| 5                          | MVPM  | 1   | 18     | 13   | 5      |
|                            |       | 2   | 6      | 4    | 2      |
| 6                          | MLS   | 1   | 7      | 6    | 1      |
|                            |       | 2   | 9      | 7    | 2      |
| 7                          | MBS   | 1   | 49     | 27   | 22     |
|                            |       | 2   | 14     | 11   | 3      |
| 8                          | MVM   | 1   | 16     | 13   | 3      |
|                            |       | 2   | 4      | 2    | 2      |
| 9                          | WHM   | 1   | 3      | 1    | 2      |
|                            |       | 2   | 5      | 3    | 2      |
| 10                         | MLD   | 1   | 18     | 16   | 2      |

|              |      |   |            |            |            |
|--------------|------|---|------------|------------|------------|
|              |      | 2 | 11         | 7          | 4          |
| 11           | MBDM | 1 | 34         | 20         | 14         |
|              |      | 2 | 16         | 4          | 12         |
| 12           | PhD  | 1 | 6          | 6          | 0          |
|              |      | 2 | 5          | 3          | 2          |
|              |      | 3 | 2          | 2          | 0          |
|              |      | 4 | 1          | 1          | 0          |
| 13           | PGD  | 1 | 4          | 3          | 1          |
| <b>TOTAL</b> |      |   | <b>821</b> | <b>528</b> | <b>293</b> |

## KEY ACRONYM

| Acronym        | Full description                                                                                 |
|----------------|--------------------------------------------------------------------------------------------------|
| BVM            | Bachelor of Veterinary Medicine                                                                  |
| BAPT           | Bachelor of Animal Production Technology and Management                                          |
| BILB           | Bachelor of Industrial Livestock Business                                                        |
| BBLT           | Bachelor of Biomedical Laboratory Technology                                                     |
| MSLS           | Master of Biomedical Laboratory Sciences and Management                                          |
| MSBS           | Master of Science in Molecular Biology                                                           |
| MSLD           | Master of Science in Livestock Development & Management (Livestock Sector Planning & Management) |
| MVPM           | Master of Veterinary Preventive Medicine                                                         |
| MWHM           | Master of Science in Wildlife Health & Mgt (Wildlife Resource Management)                        |
| PGD            | Postgraduate Diploma in Livestock Development Planning and Management                            |
| Farm           | Master of Veterinary Medicine (Farm Animal Practice and Herd Health)                             |
| Comparative    | Master of Veterinary Medicine (Comparative Pathology and Clinical Diagnostics)                   |
| Companion      | Master of Veterinary Medicine (Companion and Recreation Animal Practice)                         |
| Governance     | Master of Veterinary Medicine (Governance and Administration of Public Veterinary Services)      |
| Pharmaceutical | Master of Veterinary Medicine (Pharmaceutical Practice and Regulation)                           |
| MBDM           | Master of Science in Global Biosecurity and Infectious Diseases Management                       |
| PhD            | Doctor of Philosophy                                                                             |

# 3



## TEACHING AND LEARNING ACHIEVEMENTS



# Chapter Three

## 3.0 TEACHING AND LEARNING ACHIEVEMENTS

### 3.1 The 75<sup>th</sup> Graduation Statistics Update

COVAB proudly presented its graduands at the 75th graduation ceremony held on 31st January 2025. The cohort included recipients of PhDs, Master's degrees, Bachelor's degrees, as well as postgraduate and ordinary diplomas.

**Table 3.1: COVAB's 75th Graduation Statistics**

| Program              | F         | M          | Total      |
|----------------------|-----------|------------|------------|
| Doctorates           | 3         | 3          | 6          |
| Masters              | 12        | 24         | 36         |
| Postgraduate Diploma | -         | 7          | 7          |
| Bachelors            | 68        | 118        | 186        |
| <b>Total</b>         | <b>83</b> | <b>152</b> | <b>235</b> |

### 3.1 CoVAB Marks Milestone Achievements at the 75<sup>th</sup> Graduation Ceremony

A total of 186 students were presented during the 75<sup>th</sup> Makerere University Graduation ceremony. This diverse cohort included 68 women and 118 men. Among the graduates, six earned their esteemed PhDs, showcasing the college's commitment to advanced education and research. In addition to celebrating the graduates, the event also honored faculty members for their exceptional contributions to research excellence. Senior career awards

were presented to Prof. Mugisha Lawrence, Dr. Enoch Matovu, Prof. Kankya Clovice, Prof. Frank Norbert Mwiine, and Dr. Nyakarahuka Luke.

The Midcareer awards went to Dr. Muhanguzi Denis, Dr. Vudriko Patrick, Dr. Mutebi Francis, and Dr. Nanteza Ann. The Early career awards were given to Dr. Wilfred Eneku, Dr. Abigaba Rubaijaniza, and Dr. Paul Ssajakambwe. These awards highlight the college's commitment to fostering excellence in research and education across various career stages.



Some of the CoVAB staff received the Research Excellence Award during the 75th Graduation ceremony of 13th January 2025

During the first session of the Graduation ceremony held at the Freedom Square, the Chancellor Dr. Crispus Kiyonga in his remarks directed the integration of political economy teaching across all courses to enhance students' understanding of the country's socioeconomic conditions.

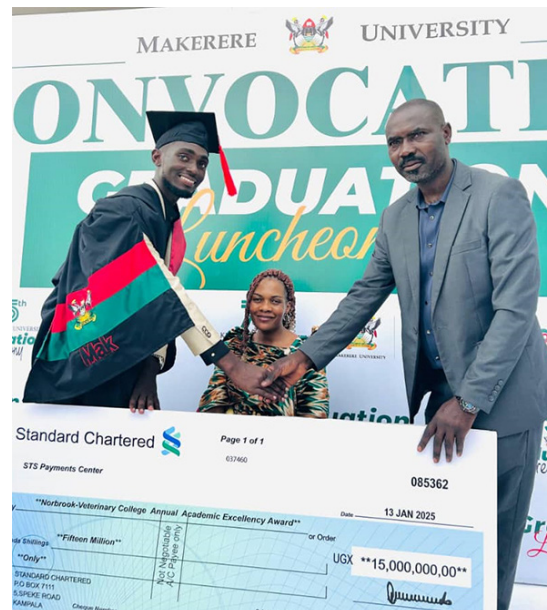
### CoVAB's Notable Research Achievements, as highlighted at the graduation event by the Vice Chancellor;

- **Cybersecurity in Bioscience Labs**
  - » Collaboration with Uganda Virus Research Institute (UVRI), supported by CRDF Global, tackling cyberattacks on laboratories handling highrisk biological materials
- **CeBioTech Advancements**
  - » Established state of the art labs up to Biosafety Level 3 (BSL3), backed by the Science, Technology, and Innovations Office of the President (STIOP)
  - » **Developed prototypes for:**
    - » COVID19 prognostic tests
    - » Antitick vaccines
    - » East Coast Fever vaccines
    - » Expanding research to other diseases requiring diagnostics and vaccines
- **Molecular & Computational Biology Research**
  - » Led by Dr. Dennis Muhanguzi, partnership with Foundation for Research and Technology Hellas (FORTH), Greece, a consortium of seven subSaharan institutions, focused on ticks as vectors of CrimeanCongo Hemorrhagic Fever

### • Rabies Elimination Initiative

- » Supported by the Swiss Government, electronic surveillance using a One Health approach, Partners: University of Zurich, Ministry of Health, MAAIF, Uganda Wildlife Authority, to eliminate rabies in Uganda and the region

### 3.2 UVA Celebrates Class of 2025 as Norbrook Awards Sh. 15 Million to Makerere's Best Veterinary Graduates



The Best Performing Veterinary Students received a total of 15 million prize

The Uganda Veterinary Association (UVA) joined Makerere University in celebrating the Class of 2025 at the 75th graduation ceremony, where the top three Veterinary Medicine students received cash prizes totaling sh15 million from Norbrook Uganda Limited under the Golden Excellence Academic Award (GEAA).

- Dr. Ronald Fashaho – sh7 million (Best Graduated)
- Dr. Ahmed Ssebagala – sh4 million (Second Best)
- Dr. Alfred Tokuma – sh4 million (Second Best, tied)





The Best Performing Veterinary Graduands 2025 cut the cake with the UVA President

This was the fourth year in a row that Norbrook has recognized outstanding veterinary students, in partnership with UVA and the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB). The celebrations included a cake-cutting ceremony led by UVA President Dr. Akashaba and Dr. Moses Setenda of Norbrook Uganda Limited, who presented a check to the awardees. The event also marked the end of a week-long UVA membership registration drive, which brought in over 40 new veterinary doctors, strengthening the association's professional community. The convocation was graced by Chancellor Dr. Crispus Kiyonga, Vice Chancellor Prof. Barnabas Nawangwe, and senior university administrators, alongside UVA leaders and partners.

### 3.3 CoVAB Launches First Taught PhD in Livestock Development



Stakeholders, faculty, and partners gather at CoVAB during the engagement meeting for the launch of the taught PhD in Livestock Development and Planning, Makerere University, August 2015.

The College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) unveiled a pioneering taught PhD program in Livestock Development and Planning, marking a milestone in agricultural education and research in Uganda. The program is designed to blend academic rigor with practical relevance, equipping scholars to tackle pressing challenges in the livestock sector, enhance food security, and influence policy across the region. Stakeholders from academia, civil society, farmer groups, donor agencies, and government convened at CoVAB to provide input, ensuring the curriculum is responsive to contemporary needs.



Dr. Dorothy Nampanzira, Head, LIR Department, gave opening remarks. Right is Prof. Anthony Mugisha, Left Dr. Rose Azuba, the facilitator of the stakeholders' meeting.

At the stakeholder engagement held on Thursday, 14th August 2025, Dr. Dorothy Nampanzira Kalule, Head of the Department of Livestock and Industrial Resources, emphasized the program's transformative potential. She

credited Prof. Anthony Mugisha as the “thought leader” behind the initiative, noting his vision sparked college-wide collaboration. Quoting Nelson Mandela, she likened the PhD to a “weapon” against food insecurity and poverty.

Representing the Directorate of Research and Graduate Training, Dr. Henry Zakumumpa called for a balance between coursework and research output, stressing the importance of core doctoral units such as methodology, gender research, and academic writing. He advised benchmarking against successful models like the taught PhD at Makerere’s College of Agricultural and Environmental Sciences. Prof. Robert Tweyongyere, Dean of the School of Veterinary Medicine and Animal Resources, congratulated the department and encouraged adherence to guidelines for approval by Makerere University and the National Council for Higher Education.

The program will focus on sustainable and ethical livestock systems, climate-resilient farming, artificial intelligence and digital tools, big data in agriculture, animal welfare, and policy leadership. Organizers of the stakeholder engagement were commended for their efforts in shaping the initiative.

On 5th November 2025, teaching staff from the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), led by Dr. Peninah Nsamba, visited the Frank Kalimuzo Teaching Facility to explore the Educational Video Recording services. Facilitated by Dr. Richard Kajumbula from the Institute of Open, Distance and eLearning (IODeL), the session provided hands-on exposure to multimedia tools to enhance academic content delivery.

The visit emphasized the importance of video-based instruction in practical disciplines such as microscopy and laboratory demonstrations. Staff, including Dr. Claire M. Mugasa, Dean of the School of Biomedical Laboratory Sciences, recorded sample segments to assess the studio’s capacity for capturing hands-on teaching methods. Discussions highlighted the value of producing locally relevant content that reflects familiar accents, voices, and teaching styles. Key considerations raised included scheduling logistics, copyright clarity, and preparedness for AI-assisted video editing. The initiative underscored CoVAB’s commitment to adopting innovative teaching technologies that support accessible, engaging, and context-aware learning experiences.

### 3.4. Advancing Learning through Multimedia Tools



CoVAB staff were at the Facility to explore the Educational Video Recording services



### 3.5. Bridging the Gap: Training Uganda's Next Generation of Teachers in One Health



Teacher trainees during One Health training at CoVAB under the COHESA project.

The Department of Biosecurity, Ecosystems and Veterinary Public Health (BEP) at the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), Makerere University, conducted a four day intensive training under the theme *“Bridging the Gap: One Health Training of Uganda’s Next Generation of Teachers.”* This initiative, part of the Capacitating One Health in Eastern and Southern Africa (COHESA) project, convened over 100 participants, including third year teacher trainees from Makerere, Kyambogo, Uganda Christian University (UCU), and Kabale University, alongside recently graduated teachers.

The program aimed to equip educators with foundational knowledge and practical skills in the One Health approach, which emphasizes

the interconnectedness of human, animal, and environmental health. Teachers were identified as strategic multipliers capable of cascading One Health principles to students and communities. Topics covered included zoonotic diseases, outbreak investigation, risk communication, community engagement, and environmental health advocacy.

Delivered by a multidisciplinary team from Afrohun and CoVAB, the training encouraged participants to integrate One Health concepts into teaching and outreach. Coordinated in Uganda by Prof. Clovice Kankya, the COHESA project operates in 12 countries. This initiative represents a significant step toward institutionalizing One Health education and fostering a healthier, more sustainable future.



### 3.6. Research Excellence Drives CoVAB's Prominence at Makerere's 75th Graduation



A section of Graduating students at the Freedom Square

The College of Veterinary Medicine, Animal Resources, and Biosecurity (CoVAB) made a remarkable impact during Makerere University's 75th graduation ceremony, graduating 186 students, including six PhD recipients. The cohort comprised 68 female and 118 male graduates, reflecting the college's commitment to inclusive academic excellence. CoVAB's prominence was further reinforced by its outstanding research contributions, with senior career awards presented to Prof. Mugisha Lawrence, Dr. Enoch Matovu, Prof. Kankya Clovice, Prof. Frank Norbert Mwiine, and Dr. Nyakarahuka Luke. Midcareer awards honored Dr. Muhanguzi Denis, Dr. Vudrico Patrick, Dr. Mutebi Francis, and Dr. Nanteza Ann, while early career awards recognized Dr. Wilfred Eneku, Dr. Abigaba Rubaijaniza, and Dr. Paul Ssajakambwe.

Vice Chancellor Prof. Barnabas Nawangwe commended CoVAB for its leadership in advancing Uganda's food security and biosecurity systems, positioning the college as a key player in national development. Echoing this sentiment, Chancellor Dr. Crispus Kiyonga emphasized CoVAB's strategic role in the proposed agro-industrial park, envisioned as a hub for teaching, innovation, and community engagement. The park would harness CoVAB's expertise to address pressing agricultural challenges and serve as a model for sustainable development across the country.

### 3.7. High-Level Roundtable on Climate-Smart Agriculture and Livestock Feed Innovation



Participants engage in a roundtable discussion on climate-smart initiatives and sustainable livestock feeds in Uganda.

On May 21, 2025, Makerere University's College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) hosted a high-level roundtable on climate-smart agriculture and livestock feed innovations in Uganda. The event, part of the CICS-A-E&SA project (*Building Capacity for Innovation and Advancement of Climate Smart Agriculture in East and Southern Africa*), brought together over 100 participants, including agricultural experts, policymakers, entrepreneurs, scientists, and PhD students. Dr. Dorothy Nampanzira, Head of CoVAB's Department of Livestock and Industrial Resources, opened the session by emphasizing collaboration as key to sustainable change. Moderated by Prof. Vincent Muwanika, discussions featured representatives from the Food and Agricultural Organization (FAO), the Ministry of Agriculture, Animal Resources and Fisheries (MAAIF), and the College of Agriculture and Environmental Sciences (CAES).

Experts explored innovative strategies to improve livestock feeding and mitigate climate impacts, including insect-based protein, blood meal, probiotics, improved manure management, and repurposing agricultural byproducts. While high-protein forage options such as elephant grass were considered, caution was advised against introducing non-native species without evaluation.

Projections indicated Uganda must increase milk production by 200% and meat production by 300% by 2050. Recommendations included strengthening multi-stakeholder engagement, enhancing research dissemination, and developing regulatory frameworks for animal feed policy. Dr. Nampanzira closed by commending participants and urging continued collaboration to secure Uganda's agricultural sustainability.

### 3.8. Orientation of Incoming Undergraduate Students at CoVAB



Incoming undergraduate students attend CoVAB's 2025 orientation session at CoVAB

In 2025, CoVAB hosted a vibrant orientation session in the College's Media Room to welcome its new undergraduate cohort, reaffirming its pillars of academic excellence, leadership, innovation, and personal growth. Prof. Frank Norbert Mwiine, College Principal, inspired students to pursue their studies with discipline, purpose, and a clear life plan, emphasizing timely program completion, responsible digital engagement, and community building. Assoc. Prof. James Acai Okwee highlighted the transition from student to professional,

while Deans Prof. Robert Tweyongyere and Dr. Claire Mugasa reinforced values of merit, hard work, and responsibility. Administrative leaders guided students on registration, integrity, and resource use; SSP Gubira Gerald stressed vigilance and adherence to regulations; and Ms. Rosemary Nalwanga promoted mental wellness, mentorship, and entrepreneurial thinking. The orientation laid a strong foundation for the new cohort, aligning them with CoVAB's mission to cultivate professionals who lead, innovate, and serve society.





Exemplary! LIR staff pose for a group photo following the 2025 orientation session of students admitted

### 3.9 CoVAB's MUBLISA Hosts Inaugural Mentorship Meeting



A section of the MUBLISA leadership at the event

The Makerere University Biomedical Laboratory Technology Students Association (MUBLISA) organized a transformative mentorship meeting at the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), inspiring students to excel in biomedical laboratory technology. The session aimed to bridge the gap between academic knowledge and real-world application while promoting diversity, inclusion, and professional development. Two accomplished alumni shared practical insights on thriving beyond academic lectures, motivating students to navigate career challenges with resilience. The event was graced by Dr. Claire M. Mugasa, Dean of the School of Biosecurity, Biotechnology and Laboratory Sciences (SBLS).

Dr. Kiyemba Stephen Kaggwa, Director of Ebenezer Laboratories, delivered a keynote address emphasizing mentorship as a catalyst

for personal and professional growth. He highlighted the untapped potential of biomedical laboratory technology and demonstrated his commitment to healthcare innovation and patient-centered care.

Ms. Eunice Ainomugisha, Vice Chair of the Allied Health Professionals Council, encouraged students to build meaningful relationships, stay organized, and seize opportunities despite challenges. Dr. Gabriel Tumwine, representing the Biomedical Laboratory Technology Department, commended MUBLISA for fostering mentorship alongside academic training. The meeting left students inspired to persevere, innovate, and make meaningful contributions to health and scientific research, reinforcing CoVAB's mission to nurture future leaders in biomedical sciences.



4



## RESEARCH AND INNOVATION



# CHAPTER FOUR

## 4.0 Research and Innovation

COVAB's research agenda is aligned with Makerere University's commitment to expanding research output and addressing pressing societal challenges. Working in partnership with a wide range of stakeholders, staff, and students made significant strides in developing sustainable solutions, as evidenced in the publications, policy briefs, and innovations. These efforts reflect the University's research-led strategy and its drive to generate knowledge that responds to real-world needs.

### 4.1 Ongoing Research Activities

### 4.2 Selected Research Outputs

#### 4.2.1 Capacity Building in Biorisk Management for Laboratory Professionals



Prof. Clovice Kankya, Head of the Department of Biosecurity, Ecosystems and Veterinary Public Health, opened the training

From 20<sup>th</sup> to 22<sup>nd</sup> October 2025, the Center for Global Biosecurity and Bio Molecular Technology (CeBioTech), in collaboration with VIQAP Consultancy Services and key stakeholders, convened a three-day training workshop to strengthen biorisk management competencies among laboratory technologists. The training was hosted at CoVAB, Makerere University. The workshop brought together professionals from human, animal, environmental, and research

laboratories, including graduate students and early-career scientists. Facilitated by Mr. John Baptist Galiwango, an IFBA-certified Biorisk Management Professional, the training covered biosafety and biosecurity principles, international standards (ISO 35001, ISO 15189), risk assessment frameworks, laboratory operations, and emerging areas such as cyberbiosecurity and Dual-Use Research of Concern (DURC).



The training was officially opened by Prof. Clovice Kankya, Head of the Department of Biosecurity, Ecosystems and Veterinary Public Health, and featured keynote remarks from Mr. Joseph Nkodyo, National Coordinator for Biosafety and Biosecurity Programs at the Ministry of Health. The closing ceremony was presided over by Prof. Lawrence Mugisha, Chairperson of the National Biosafety Committee under UNCST, who emphasized the

importance of responsible life sciences research in the context of emerging technologies. Participants received certificates of completion and expressed appreciation for the practical and interactive nature of the sessions. The training underscored Makerere University's commitment to advancing professional development and national preparedness for emerging and re-emerging biological threats.

#### 4.2.2 CIMTRADZ Founders Convention Marks 12 Years of Impact



Delegates at the CIMTRADZ Founders Convention 2025 during the launch of MAGBBA at Makerere University.

In September 2025, CoVAB hosted the CIMTRADZ Founders Convention, celebrating 12 years of achievements by the Consortium for Integrated Management of Transboundary Animal Diseases and Zoonoses (CIMTRADZ). The convention showcased the consortium's leadership in advancing veterinary science, regional collaboration, and integrated disease management across Africa. A landmark highlight was the launch of the Multisectoral Alliance for Global Biosecurity and Bioeconomy Advancement (MAGBBA), a bold initiative designed to strengthen global biosecurity systems and drive innovation in the bioeconomy.

The gathering brought together academics, policymakers, and scientists to reflect on milestones and chart a forward-looking agenda, emphasizing crossborder cooperation, knowledge sharing, and capacity building. Key outputs included the establishment of advanced research infrastructure such as the Center for Biosecurity and Global Health, the launch of postgraduate programs in biosecurity and biotechnology, strengthened international collaborations, and expanded vaccine research and diagnostic capabilities.

Prof. John David Kabasa called for urgent action to address emerging biological threats

and advocated for PanAfrican cooperation and a culture of innovation. Prof. M. Kaneene of Michigan State University reflected on CIMTRADZ's global influence and urged expansion through targeted training programs. Contributions from CoVAB leadership—including Prof. Frank Norbert Mwiine (represented by Prof. Savino Biryomumaisho), Dr. Claire Mack Mugasa, and Dr. Enoch Matovu—highlighted

the consortium's role in shaping infrastructure, academic programs, and regional preparedness against infectious diseases. By celebrating its legacy and unveiling MAGBBA, CIMTRADZ reinforced its commitment to global biosecurity, innovation, and sustainability, ensuring Africa remains a key player in tackling transboundary diseases and zoonotic challenges.

#### 4.2.3 Uganda Hosts First Symposium on Bacteriophage Research and Applications



Delegates at Uganda's inaugural Symposium on Bacteriophage Research and Applications, hosted at Makerere University in March 2025

Uganda's inaugural Symposium on Bacteriophage Research and Applications was convened on March 27th, 2025, by CoVAB, Makerere University. The event marked a significant milestone in the country's efforts to combat antimicrobial resistance (AMR) through innovative phage-based solutions. Distinguished speakers included Dr. Tobi Elaine Nagel (Phages for Global Health, USA), Prof. Martha Clokie (University of Leicester, UK), Dr. Robert Blasdel (VASALE, Belgium), and Ms. Abigail Riggs (UK Foreign, Commonwealth and Development Office). Dr. Jesca Nakavuma, Uganda's leading phage researcher, highlighted the nation's progress since 2017—from a modest student-led initiative to a robust

research program addressing agriculture, clinical health, food safety, and environmental protection.

The symposium celebrated the achievements of Phage Team Uganda, which has characterized 125 phage isolates and trained over 20 graduate and undergraduate students. Collaborations with IDRC InnoVet AMR and AU Safe Fish have further advanced Uganda's leadership in phage science. Despite challenges such as limited production facilities and regulatory gaps, the vision to establish a Phage Research and Development Center remains strong. Makerere University reaffirmed its commitment to pioneering research, positioning Uganda as a global leader in bacteriophage innovation.



#### 4.2.4 Makerere University and Michigan State University Host Landmark Symposium on Insects for Food, Feed, and Food Security in Africa



Some of the facilitators (L\_R) Prof. Jeffrey K. Tomberlin from Texas A&M University, Dr. Dorothy Nampanzira, HoD LIR at CoVAB, Prof. Eric M. Benbow from Michigan, and Dr. Amulen Deborah Ruth.

In June 2025, CoVAB, in collaboration with Michigan State University, hosted a landmark symposium titled *“Advancing the Role of Insects in African Farming Systems for Feed, Food, and Food Security”* at Onomo Hotel in Kampala. The twoday event convened over 100 participants from more than ten countries, including researchers, policymakers, and practitioners, to explore the transformative potential of insects in addressing Africa’s challenges in agriculture, nutrition, and sustainability. With over 470 edible insect species native to the continent, experts highlighted their nutritional and environmental benefits, citing examples such as the Black Soldier Fly, farmed for highprotein animal feed and organic fertilizer.

Keynote remarks delivered by Prof. Frank Norbert Mwiine, on behalf of Makerere University Vice Chancellor Prof. Barnabas Nawangwe, commended Dr. Deborah Amulen for her leadership in organizing the symposium.

Distinguished speakers—including Prof. Jeffrey K. Tomberlin (Texas A&M), Prof. Eric M. Benbow (Michigan State), Prof. Florence Dunkel (Montana State), Dr. Denise Beesigamukama (ICIPE Kenya), and Dr. Amulen herself—shared groundbreaking research and practical applications in insect farming. Discussions centered on four thematic areas: insects as sustainable animal feed, insects for human nutrition, contributions to soil health and crop productivity, and commercialization and policy frameworks.

A major highlight was the announcement by Uganda’s Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) of a \$325 million Smart Agriculture Transformation Project, aimed at promoting sustainable practices and alternative protein sources, including insects. Institutional partners such as NARO, the National Council for Science and Technology, and ICIPE enriched the dialogue on innovation,

regulation, and scaling production. The symposium concluded with a strong call for investment, harmonized policies, and deeper research to mainstream insectbased food systems across Africa.

By convening this event, CoVAB reaffirmed its leadership in advancing sustainable agricultural solutions and laid the groundwork for future collaboration, innovation, and policy development in insect science.



(L\_R) Dr. Dorothy Nampanzira, HOD LIR, Dr. Claire M. Mugasa, DEAN SBLS, Prof. Frank Norbert Mwiine, Principal CoVAB, Assoc. Prof. James Accai Okwee, Deputy Principal CoVAB, and the host, Dr. Amulen Deborah Ruth, at the opening of the symposium on 5th June 2025, at Onomo Hotel in Kampala.

During the deliberations, the experts emphasized that insects offer a viable, sustainable, and nutrient-rich solution to Africa's growing food demands. The event underscored ongoing research and commercialization efforts aimed at mainstreaming insect farming into the agricultural sector. As global interest in alternative protein sources continues to rise, the symposium marked a significant step toward harnessing the potential of insects to enhance food security in Africa.

#### 4.2.5: CoVAB Hosts First Innovation and Careers Day to Inspire Future-Ready Graduates



Students engage in CoVAB's inaugural Innovation and Careers Day, October 2025



Panelists share insights during CoVAB's inaugural Innovation and Careers Day, October 2025



CoVAB held its inaugural Innovation and Careers Day on October 2, 2025, drawing over 600 students from across the university and Makerere University Business School (MUBS). Under the theme *“Beyond Lab Coats: Expanding Careers in Government and Business,”* the event aimed to broaden students’ perspectives on career paths beyond traditional biosciences. The day featured engaging panel discussions with professionals from diverse sectors, including Dr. Akashaba Andrew, Dr. Nahabwe Innocent, Dr. Gabriel Tumwine, and Atuhaire Ronnie. Their stories showcased how veterinary and bioscience training can lead to impactful careers in media, education, entrepreneurship, and technology.

Prof. Robert Tweyongyere, Dean of SVAR, praised students’ growing innovation culture, citing increased research proposals to IACUC. Dr. Claire Mack Mugasa, Dean of SBLs, urged alignment with Uganda’s National Development Plan IV, emphasizing food security and innovation. Spearheaded by a team led by Ms. Rita Ndibalekera, the event successfully bridged academic learning with real-world readiness, encouraging students to lead with creativity, resilience, and purpose. The Innovation and Careers Day marked a significant step in CoVAB’s mission to bridge academic training with professional readiness, inspiring students to embrace leadership, innovation, and interdisciplinary collaboration as they prepare to shape the future.

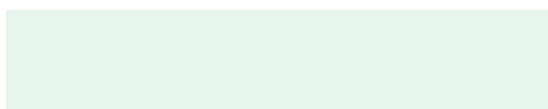
#### 4.2.6. AGRO-SAP Triumphs at CoVAB Innovation Expo 2025



AGRO-SAP was crowned the Overall Winner at the CoVAB Careers Day and Innovation Expo, standing out as a groundbreaking project in climate change mitigation and sustainable agriculture. Born from curiosity and teamwork, AGRO-SAP aims to empower communities with resilient solutions to environmental challenges. The project’s journey, marked by late nights, brainstorming sessions, and overcoming setbacks, reflects the team’s unwavering commitment to innovation that changes lives.



The winning teams received cash prizes



The winning team, comprised of Nabatanzi Elinah, Dr. Racheal Alani, Yatuha Kathy, and guided by mentors at INNOVETS, celebrated the achievement as a shared victory. This recognition underscores the importance of youth-led innovation in addressing global challenges and sets the stage for AGRO-SAP to dream bigger, work harder, and continue driving sustainable impact. AGRO-SAP is a student-led innovation project dedicated to addressing climate change through sustainable agricultural practices. By leveraging technology and community-driven solutions, AGRO-SAP aims to build resilience, reduce environmental impact, and inspire future generations to innovate for a better world.

#### 4.2.7 CoVAB at Makerere University Research and Innovations Week 2025

Makerere University successfully hosted the Research and Innovation Week 2025 from April 8 - 10, 2025, at Freedom Square. The three-day event showcased groundbreaking research and innovations supported by the Makerere University Research and Innovation Fund (MakRIF). Since its inception, MakRIF has funded more than 1,300 multidisciplinary projects, generating evidence to inform national priorities and accelerating Uganda's progress toward middleincome status. The University welcomed President Yoweri Kaguta Tibuhabwe Museveni as Chief Guest, accompanied by First Lady Janet Kataaha Museveni, who also served as Minister of Education and Sports.





CoVAB exhibitors at the MAKRIF 2025 Innovations week



## Exhibitions and Plenary Sessions

The week featured both science and arts-based exhibitions alongside concurrent plenary sessions. Exhibitions highlighted projects across seven thematic areas of the MakRIF Research Agenda: Agricultural Transformation, Food Security and Livelihoods; Health and WellBeing; Science and Technology; Natural Resources Management, Urbanization and Climate Change; Cultural, Heritage and Creative Arts; Governance, Social Justice and Human Rights; and Economic Growth and Innovation. CoVAB actively participated in the event, presenting innovations in animal health, food security, and sustainable livestock management. Their contributions highlighted the critical role of veterinary science in advancing agricultural transformation and public health in Uganda.

### 4.2.8 Scientific Equipment worth over 1.4 billion shillings received at CoVAB

Makerere University secured a donation of scientific laboratory equipment valued at USD 400,000 (Shs. 1.6 billion) through the Seeding Labs' Instrumental Access Program. The consignment received will significantly enhance teaching, research, and diagnostic services. Makerere now joins a global network of 137 institutions across 39 countries benefiting from advanced tools that elevate STEM education and innovation. Prof. Edward Wamala, received the equipment on behalf of the Vice Chancellor, Prof. Barnabas Nawangwe. He noted that this was a great contribution towards Makerere's pursuit of academic excellence, innovation, and impactful research, emphasizing its role in strengthening infrastructure, advancing scientific inquiry, and empowering students and faculty. He noted that the donation reflects confidence in Makerere's scientists and their responsibility to address global challenges in animal health, biosecurity, and public health.

Assoc. Prof. James OkweeAcai, Deputy Principal CoVAB, commended the university's management for facilitating the shipment and clearance, highlighting the stateoftheart nature of the equipment. The donation is expected to

boost diagnostic capacity, support the livestock industry, and contribute to disease surveillance. This award, granted after a rigorous selection process, underscores Makerere's growing partnerships and commitment to advancing veterinary science and One Health.



Prof. Robert Wamala (5<sup>th</sup> from Left) and a section of CoVAB staff and students witnessed the receipt of the equipment



Dr. Patrick Vudrico (L) led the team on a guided tour of the equipment in the RTC Lab



The Deans SVAR and SBSLS and other college staff checked the equipment



Some of the cartons containing equipment displayed on the RTC Lab



The donors, the Instrumental Access is the flagship program of Seeding Labs, which is a US-based NGO working to increase access to resources for science in developing countries. The mission of Seeding Labs is to increase access to resources for science in developing countries. CoVAB's participation in Instrumental Access makes Makerere University a member of the community of 137 Instrumental Access awardees in 39 countries worldwide.

The equipment will provide a foundation for other critical resources that allow scientists to generate new knowledge, leverage sustainable funding, and better prepare university students for the scientific workforce and innovation economy.



Some of the PhD students and staff witnessed the display of the equipment received.



Dr. Patrick Vudrico opening some of the cartons to check out the equipment



Prof. Edward Wamala, on behalf of the Vice Chancellor, Prof. Barnabas Nawangwe

## Distribution of the equipment

The donation, made primarily to RTC Lab, was shared across CoVAB's nine main laboratories, hence boosting equipment and consumables for student training and research college-wide. While the bulk remained at the RTC Lab, all labs benefited from strengthening their capacity.

**Table 4.2 List of beneficiary teaching and research laboratories in the Departments at COVAB**

| Beneficiary Laboratory                                         | Department                                            |
|----------------------------------------------------------------|-------------------------------------------------------|
| Research Center for Tropical Diseases and Vector Control (RTC) | Veterinary Pharmacy, Clinical & Comparative Medicine  |
| Molecular Biology Laboratory (MOBILA)                          | Biomedical Laboratory Technology & Molecular Biology  |
| Central Diagnostic Laboratory (CDL)                            | Veterinary Pharmacy, Clinical & Comparative Medicine  |
| Microbiology Teaching lab                                      | Pathobiology                                          |
| Food safety Laboratory                                         | Biosecurity, Ecosystems, and Veterinary Public Health |
| Analytical Biosciences Laboratory (ABL)                        | Comparative Anatomy & Physiological Sciences          |
| Animal Nutrition Laboratory                                    | Livestock Industrial Resources                        |
| Veterinary Surgery & Small Animal Clinic                       | Veterinary Pharmacy, Clinical & Comparative Medicine  |
| Diagnostic Pathology                                           | Pathobiology                                          |



## Gulu District Commissions Regional Animal Disease Lab to Combat Tick-Borne Threats



On 30th August 2025, Gulu District marked a significant milestone in livestock health management with the commissioning of the Gulu Regional Animal Disease Diagnostics and Epidemiology Centre (GRADDEC). The ceremony, presided over by District Chairperson Mr. Christopher Opio Atege, was witnessed attended by the Resident District Commissioner, Chief Administrative staff, and members of the Production Department. The facility was rejuvenated and reequipped through the Monitoring of Ticks and Tick Acaricide Resistance in Uganda (MoTAR) Project, hosted at Makerere University's College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB). GRADDEC is designed to serve as a regional hub for diagnostics, surveillance, and data management on tick-borne diseases and acaricide resistance. It will also contribute to the development of a national information system to improve coordination and response across districts. Previously, livestock samples had to be sent to the National Animal Disease Diagnostics and Epidemiology Centre (NADDEC) in Entebbe, causing delays in

treatment. The new lab is expected to reduce turnaround time, improve disease management locally, and strengthen the Acholi sub-region's capacity to respond to livestock health threats.



In order to support its operations and addressing challenges at hand such as inadequate staffing, Gulu Local Government recruited two lab technicians and allocated UGX 22 million for the lab's operations. GRADDEC was also supported by partners including Bailor Uganda, Global Alliance, MAAIF, and GalVmed, with funding from the Fleming Fund Country Grant until December 2025. Neighboring districts



such as Kitgum and Amuru were invited to utilize the facility, which received 30 sets of equipment and was set to begin training technicians and veterinarians.

### **Commissioning of the Lab at Kumi**

Prior to Gulu, the team led by The Commissioner for Veterinary Services (Animal Health) in MAAIF Dr. Anna Rose Ademun Okurut commissioned the Lab in Kumi, which was also refurbished with support from the Mortar Project.



### **4.3.8. Experts Discuss Climate-Smart Agriculture and Livestock Feed Innovations in Uganda**



Participants at the roundtable discussion on climate-smart initiatives and livestock feed innovations in Uganda in the E-Boardroom at CoVAB

CoVAB hosted a high-level roundtable on climate-smart initiatives and livestock feed innovations in Uganda. The event brought together leading agricultural experts, policymakers, entrepreneurs, scientists, and PhD students to exchange ideas on sustainable agriculture and the future of livestock feeding. Dr. Dorothy Nampanzira, Head of the Department of Livestock and Industrial Resources at CoVAB, emphasized the importance of collaborative dialogue in driving meaningful change. She acknowledged progress made in climate-smart agriculture while stressing the need

for documentation and evaluation to ensure achievements are fully leveraged for future impact.

The engagement was part of the four-year CICS-A-E&SA project (*Building Capacity for Innovation and Advancement of Climate Smart Agriculture in East and Southern Africa*), which seeks to establish a stakeholder-driven platform for sharing experiences and strengthening farmer resilience. The project is guided by a committee comprising Prof. John Tabuti, Prof. Josephine Esaete, Prof. Vincent Muwanika, and Dr. Nampanzira.

Discussions explored innovative strategies such as improved manure management, repurposing agricultural byproducts, insect-based protein feeds, and probiotics. Experts highlighted the importance of research-driven solutions to maximize efficiency and ensure safe adoption of new techniques, reinforcing Uganda's commitment to sustainable agriculture.

With Uganda's livestock industry expanding rapidly, concerns were raised about gaps in technical knowledge among farmers, particularly as modern farming practices evolve. Participants emphasized the importance of bridging this gap through better documentation, sensitization programs, and closer collaboration between researchers and farmers. The discussions made some future projections based on available research and experiences drawn from elsewhere which projections indicate that Uganda will need to significantly increase its milk and meat production by 2050 to meet the growing demand. Experts underscored the importance of predictive models and data-driven research to assess feed availability, considering factors such as rising carbon dioxide levels that could affect grass protein content, which is a major component of livestock diets. The discussions concluded with recommendations to strengthen stakeholder cooperation, enhance information-sharing efforts, and revive research dissemination initiatives.

#### 4.3.9. Makerere Scientists Document Climate-Smart Innovation in Sentema



Cattle on Mr. Mugisha's Farm being fed on silage made on the farm.



In 2025, scientists under the regional project Building Capacity for Innovation and Advancement of Climate-Smart Agriculture in East and Southern Africa (CICSA-E&SA) visited Mr. Jonan Mugisha, an urban farmer and environmentalist in Sentema, Wakiso District. His adoption of Nutrient Recycling Innovation has transformed urban farming by addressing odor challenges from dairy production while enhancing productivity through sustainable practices.

Central to his approach is VTC Technology, introduced by Dr. Herbert Mukiibi of Makerere University's CoVAB, which recovers nutrients from diverse waste streams farm, market, and domestic and returns them to their original sources. This innovation not only eliminates odor but also produces organic manure, boosting vegetable yields and reducing reliance on inorganic fertilizers.



Mr. Mugisha explains the Innovation that has helped him resolve the challenge of waste and odor management on his farm



Prof. Asaete, Dr. Nampanzira, and Dr. Herbert Mukiibi conducted around the vegetable garden where the manure is applied

Led by Dr. Dorothy Nampanzira Kalule, the visiting team included Prof. Josephine Esaete, Prof. Robert Tabuti, and Prof. Vincent Muwanika. They commended Mr. Mugisha's initiative as a locally driven, environmentally sound, and socially inclusive solution. The project aims to validate such farmer-led practices and promote them as models of climate-smart agriculture. Mr. Mugisha's innovation demonstrates how waste can be reframed as a valuable resource, contributing to greener, more resilient cities. Supported by CICSA-E&SA partners in Uganda, Kenya, Malawi, and Norway, the initiative highlights the power of science-driven collaboration in advancing sustainable agriculture.

#### 4.3.10 Construction of Hostel at Buyana Stock Farm Commences



Makerere University commenced construction of a new student hostel at Buyana Stock Farm, following the allocation of UGX 980 million to the project. The facility, a flagship research and training site under the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), is being built by the Uganda People's Defence Forces (UPDF) construction unit.

The hostel project marks a turning point in addressing the longstanding challenge of inadequate accommodation for students and staff engaged in practical training and research

at the farm. With construction now underway, the facility is expected to provide modern living spaces that will enhance student welfare, improve training conditions, and strengthen Buyana's role as a hub for agricultural innovation and outreach. University officials emphasized that the hostel construction is part of a broader strategy to transform Buyana into a Center of excellence for agricultural training and innovation, ensuring that students gain hands-on experience while contributing to Uganda's livestock sector.

#### 4.3.II RTC Lab Revitalized: Makerere University Leads Uganda's Response to TickBorne Disease Challenges



Prof. Barnabas Nawangwe, Vice Chancellor, Makerere University, joins CoVAB Principal and staff, as well as other stakeholders, at the Commissioning of the RTC Lab

Makerere University, on August 1st, 2025, commissioned the newly refurbished Research Center for Tropical Diseases and Vector Control (RTC Lab) at the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), marking a major milestone in Uganda's livestock health sector. The event, presided over by Vice Chancellor Prof. Barnabas Nawangwe, brought together stakeholders from MAAIF, GALVmed, the Uganda Veterinary Association, and the Uganda Animal Health Laboratory Network.



Once outdated, the RTC Lab has been transformed into a multi-unit scientific hub through the MoTAR project (Monitoring of Ticks and Acaricide Resistance in Uganda), supported by GALVmed. It now houses four specialized laboratories: the genomics, serology, pharmaceutical and toxicology, and a central research unit, supporting research in tick-borne diseases, acaricide resistance, vaccine response, and pollinator protection.



Inside the lab, with a state-of-the-art equipment

Prof. Nawangwe praised CoVAB's growing research output and urged scientists to translate findings into innovations and products. He highlighted the university's active intellectual property office as evidence of a shift toward the commercialization of research. The Principal Investigator of the MoTAR project, Dr. Patrick Vudriko traced the lab's journey from limited capacity in 2011 to its current status as a magnet for young scientists and a hub for national and international collaboration. The RTC Lab, alongside new facilities in Gulu and Kumi, will feed data into Uganda's National Food and Agricultural Statistical System, strengthening evidencebased policy for livestock health.

#### **4.3.12. The Refurbished Regional Animal Disease Lab Commissioned in Gulu to Combat Tick-Borne Threats Put pictures**

The Gulu Regional Animal Disease Diagnostics and Epidemiology Center (GRADDEC) was officially commissioned on 30th August, 2025, marking a major milestone in the fight against tickborne diseases and acaricide resistance. The launch ceremony was presided over by District Chairperson Mr. Christopher Opio Atege, alongside the Resident District Commissioner, Chief Administrative staff, and members of the Production Department.

Revitalized under the Monitoring of Ticks and Tick Acaricide Resistance in Uganda (MoTAR) project at Makerere University's CoVAB, the facility is now equipped to serve as a regional hub for diagnostics, surveillance, and data management. It will contribute to a national information system, strengthening coordination



and response across districts in the Acholi sub-region. Despite its strategic role, GRADDEC faces staffing and budgetary challenges. Gulu District recruited two lab technicians and allocated UGX 22 million for operations, supplementing support from partners including Bailor Uganda, MAAIF, GalVmed, and the Fleming Fund. Neighboring districts such as Kitgum and Amuru are expected to benefit from the lab's services. The Center's commissioning comes at a critical time, with livestock diseases such as African swine fever causing significant losses. Officials emphasized GRADDEC's vital

role in safeguarding farmer livelihoods and strengthening Uganda's livestock sector.

#### 4.3.13. Prof. Kankya Represents Uganda at the Europe–Africa Dialogue on Meat Inspection

Prof. ClOvice Kankya, Head of the Department of Biosecurity, Ecosystems and Veterinary Public Health at CoVAB, represented Uganda at a high-level conference on *“Comparing Risk Management Methodologies and Meat Inspection Protocols at European/African Slaughterhouses.”*



Prof. Kankya (Center) at the Europe–Africa Dialogue on Meat Inspection

The meeting, hosted at the VISAVET Health Surveillance Center, Complutense University of Madrid, on June 11<sup>th</sup>, 2025, was part of the One Health Europa-Africa Summit on Veterinary Public Health and Food Safety, bringing together experts from Makerere University (Uganda), Universidad Complutense (Spain), and Università di Bologna (Italy). Discussions centered on three themes: contrasting inspection systems, capacity building in Africa,

and harmonization of standards. Delegates noted that European slaughterhouses have adopted risk-based, data-driven inspection systems incorporating food chain information and HACCP principles. In contrast, many African facilities continue to rely on traditional, manual methods, constrained by outdated legislation, limited laboratory infrastructure, and shortages of trained personnel.

The conference emphasized the urgent need for capacity building in Africa and called for shared standards and scientific collaboration to improve food safety and enhance intercontinental trade. Participants also underscored the importance of the One Health approach, linking animal, human, and environmental health in future policy-making. The dialogue concluded with a strong call for institutional collaboration to advance veterinary public health and ensure safer meat production globally.

#### 4.3.14. INSSPIRE Project Achievements in Food Systems and Climate Action



INSSPIRE participants pose for a group photo at the Final Dissemination Conference on November 18, 2025, at the Imperial Royale

The College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) hosted the Final Dissemination Conference of the INSSPIRE Project at the Imperial Royale Hotel, Kampala. The three-year initiative, funded through Erasmus+, marked its conclusion by highlighting achievements in higher education and food systems innovation. Among the many achievements shared at the engagement, the project enriched curricula across partner universities, introduced real-life learning labs, and pioneered Collaborative Online International Learning (COIL). According to organizers, INSSPIRE engaged 60 lecturers, reached 850 students, involved 500 community

stakeholders, and built a collaborative network of 18 universities across Africa and Europe. Representing the Vice Chancellor, Prof. Julius Kikoma praised the project's role in reimagining higher education to address food security and climate change. Special recognition was given to CoVAB and Dr. Charles Drago Kato for their leadership, alongside partners including Vrije Universiteit Amsterdam, RUFORUM, FAO, and national agencies. Officials said the project leaves a lasting legacy of collaboration, innovation, and capacity building, equipping graduates to drive food systems transformation and climate resilience in Uganda and beyond.



#### 4.3.15. Urban Farming & Climate-Smart Practices – Kyakuwa Farm Visit



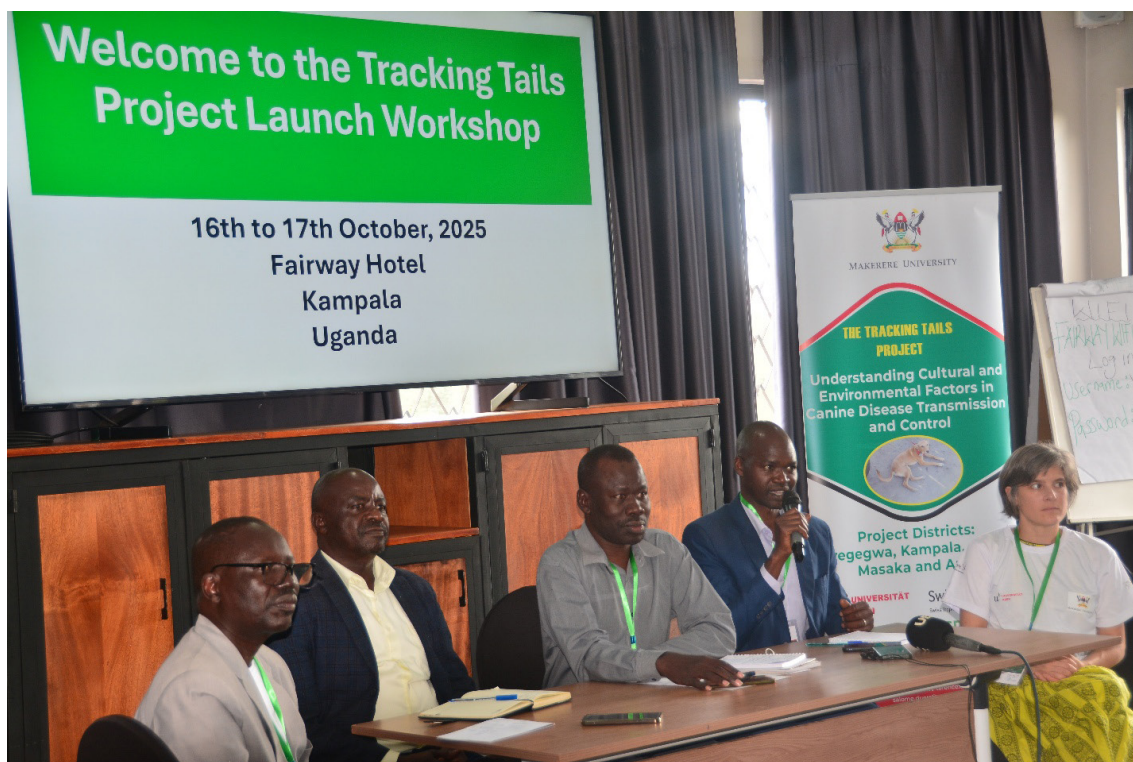
Makerere University researchers, under the collaborative project *Building Capacity for Innovation and Advancement of Climate Smart Agriculture in East and Southern Africa (CICSAE&SA)*, visited Kyakuwa Dairy Farm to explore urban farming innovations and climatesmart practices. Led by Dr. Dorothy Nampanzira Kalule from CoVAB, with Prof. Vincent Muwanika and other scientists, the engagement highlighted Makerere's commitment to advancing sustainable agriculture through knowledge exchange and collaborative learning. At Kyakuwa Farm, the team observed practical technologies that enhance resilience and reduce emissions in urban livestock systems. These included silage from sweet potato vines, hay from Paspalum grass, hydroponic fodder, and the use of diatomaceous earth as an organic insecticide to improve herd health and environmental hygiene.

Prof. Jolly M. L. Kabirizi, Executive Director of Kyakuwa Farm, showcased her model of sustainable dairy production, emphasizing innovative feed, waste management, and youth empowerment.

Her standout innovation, “turning waste into wealth,” integrates organic market waste—such as bean pods, sweet potato vines, and pineapple residues—into dairy feeding systems, reducing costs and minimizing urban waste. The farm also converts manure into charcoal briquettes, offering households cleaner energy alternatives while easing pressure on forests. The visit reinforced Kyakuwa Farm as a replicable model for climatesmart urban farming, demonstrating how circular resource use, innovation, and community engagement can drive resilience and sustainability.



#### 4.3.16 A Transnational “Tracking Trails” Project to Study Free-Roaming Dogs



Officials and researchers at the launch of the Tracking Trails Project, Fairway Hotel Kampala, October 2025

CoVAB on October 17<sup>th</sup>, 2025, launched the Tracking Trails Project, a multi-country research initiative designed to study the movement of free-roaming dogs and their role in the spread of zoonotic diseases, particularly rabies. Implemented under the Department of Biosecurity, Ecosystems and Veterinary Public Health, the project brings together experts from Uganda, Chad, India, Indonesia, and Switzerland. By integrating epidemiology, ecology, veterinary medicine, genomics, and socio-cultural anthropology, the initiative exemplifies the One Health approach, fostering a holistic understanding of canine mobility and its public health implications. The Principal Investigator, Dr. Salome Dürr of the University of Bern, speaking at the launch, noted that the study goes beyond rabies surveillance to examine broader health risks linked to canine

mobility. Uganda was chosen as the initial implementation site, with research spanning Kyegegwa, Masaka, Arua, Soroti, and Kampala districts.

Co-Principal Investigator Dr. Terence Odoch emphasized the project's dual focus, generating actionable scientific evidence and building academic capacity through postgraduate training. Dogs will be fitted with GPS collars to track movement patterns, pack dynamics, and interactions with human environments. Officials from partner countries highlighted unique challenges, including nomadic pastoralism in Chad, cultural paradoxes in India, and endemic rabies in Indonesia. Uganda's Ministry of Health stressed the urgent need for intersectoral collaboration to combat rabies, which remains nearly 100% fatal once symptoms appear.



Some of the researchers that include PhD and Post Doc fellows taking part in the project were at the launch.

Deputy Principal Prof. James Okwee-Acai, representing Vice Chancellor Prof. Barnabas Nawangwe, described the initiative as a milestone in global rabies control. Researchers said the project will provide a blueprint for canine population management and disease prevention across Africa and Asia.

#### 4.3.17. PREPARE4VBD Project Delivers Breakthrough Tools Against Vector-Borne Diseases





The EU-funded PREPARE4VBD project concluded with major scientific outputs aimed at strengthening the preparedness of Africa and Europe for emerging vector-borne diseases. Over five years, the consortium developed innovative tools and data systems to tackle zoonotic threats intensified by climate change and globalization. The final dissemination workshop for the intervention, a Cross-Disciplinary Alliance to Identify, PREDict, and PrePARE for Emerging Vector-Borne Diseases (PREPARE4VBDs) was successfully held from May 5th to 8th, 2025, at Best Western Premier Garden Hotel, Entebbe, Uganda, marking the culmination of a five-year, cross-continental research effort addressing vector-borne diseases in the era of climate change and globalization. Among the key achievements is the AI-assisted Mini-FLOTAC microscope, designed to improve parasite detection. Researchers also created a Global Vector Database (GVD), a centralized platform for vector data collection. They developed novel diagnostic methods, including PCR tools for livestock pathogens and environmental DNA techniques for liver fluke detection. The project advanced model-based surveillance, producing a Rift Valley Fever transmission model and climate impact analyses on snail-borne diseases. Large-scale warming experiments across Africa and Europe provided new insights into vector adaptation. Notably, scientists discovered an Ixodes tick species in Kenya, previously only known in Europe. Capacity building was central, with training for 4 MSc students, 11 PhD fellows, and summer schools

in Uganda and Kenya. Publicly accessible SOPs and training videos were also produced to support ongoing surveillance.

#### **4.3.18. Breakthrough in Anti-Tick Vaccine Development**

Makerere University's College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) has announced major progress in the development of its TicVac-U anti-tick vaccine, an innovation designed to reduce livestock losses and strengthen Uganda's agricultural economy. The recombinant vaccine, developed from proteins of the brown ear tick (*Rhipicephalus appendiculatus*) and local tick species, has demonstrated 86% efficacy, reducing calf crop deaths by 14%. With livestock contributing 19.4% of Uganda's GDP (USD 17.09 billion), the vaccine is projected to save the industry USD 160.7 million annually by cutting losses in milk and meat production and reducing acaricide imports.

During FY 2023/2024, CoVAB prepared Ngoma Farm for clinical trials, installed machinery at Alfasan Uganda Ltd and CoVAB's R&D facilities, and trained technical staff in vaccine production. Regulatory approvals advanced, with the National Biosafety Committee (UNCST) providing feedback and the National Drug Authority (NDA) certifying Alfasan's premises for vaccine manufacturing. Makerere students have been actively engaged in tick profiling and protein research, while staff received training in Good Manufacturing Practice (GMP) and quality control



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5

## COLLABORATION AND NETWORKING





# CHAPTER FIVE

## 5.0 Collaboration and Networking

### 5.1 CoVAB Hosts Strategic Breakfast Meeting with Feed Industry Stakeholders

The College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), Makerere University, hosted a strategic breakfast meeting to strengthen collaboration between academia and Uganda's animal feed industry. The engagement brought together feed manufacturers, academic staff, and student coordinators to explore opportunities in student training, curriculum enhancement, and joint research.



Stakeholders who took part in the engagement aimed to bridge the gap between academia and industry

Discussions centered on aligning internship programs with industry needs, incorporating stakeholder feedback into curriculum design, and preparing for the implementation of the Feeds Act 2024. Participants emphasized the importance of bridging the gap between classroom learning and industry practice to produce graduates equipped for the evolving livestock sector. Dr. Margaret Nabulime, Feed Coordinator at CoVAB, highlighted mentorship, skills transfer, and structured internships as critical pillars in producing industryready

professionals. She underscored the need for sustained collaboration to ensure that students gain practical exposure while contributing to innovation in feed production and safety. The meeting concluded with a shared commitment to expand internship placements, cohost capacitybuilding workshops, and initiate collaborative research in feed safety, formulation, and antimicrobial resistance. The initiative reaffirmed CoVAB's role as a driver of innovation and professional development within Uganda's veterinary and livestock sectors.



## 5.2 Global Scholar Prof. John B. Kaneene Pushes for Structural Change in Ugandan Universities

Renowned academic Prof. John B. Kaneene of Michigan State University has urged Ugandan universities to embrace sweeping structural reforms to elevate research and innovation. Speaking at a science and innovation forum hosted by the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), Makerere University, Prof. Kaneene emphasized the urgent need for improved facilities, meritbased promotion systems, and stronger incentives for researchers.



Prof. John B. Kaneene from Michigan State University was the Guest Speaker at the Science and Innovation forum at CoVAB, Tuesday, 26th August 2025.

Delivering a lecture under the theme *“Industrial Biomedical Research and Innovation: Lessons from Michigan State University for Uganda’s New Industrial STI Dispensation,”* he called for recognition of scholars who achieve significant milestones, arguing that “success must be incentivized.” He criticized current promotion frameworks, advocating for stricter, meritbased criteria free from political interference. Prof. Kaneene also highlighted the importance of shifting from basic science to industrial and translational research, producing innovations that directly benefit public health and economic development. He urged government to increase funding, improve infrastructure, and support

top scientists, noting that universities must be recognized as engines of national progress.

Ms. Brenda Nakazibwe, Bureau Chief for the Pathogen Economy at the STI Secretariat, reaffirmed the government’s commitment to strengthening Uganda’s scientific ecosystem. She praised Prof. Kaneene’s insights, citing his role in founding the STI Open Platform (formerly PRESIDE), which accelerated vaccine and therapeutic research.

Prof. John David Kabasa traced the forum’s roots to a longstanding consortium between U.S. and African universities, which has yielded milestones such as the establishment of the Center for Global Biosecurity and Bio molecular Technology (CeBioTech), and new biosecurity programs. He emphasized that these partnerships are shaping Uganda’s emerging industrial bio economy.

## 5.3 Sekajja Agro Farms and Makerere University CoVAB Forge Graduate Trainee Partnership to Strengthen Uganda’s Poultry Sector



Sekajja Agro Farms team hosts Makerere University CoVAB delegation led by Dr. Sylvia Nalubwama, marking the launch of the next phase of the graduate training program.

Sekajja Agro Farms Ltd (SAF), a fully integrated poultry enterprise located in Buyuki Nama Sub-County, Mukono District, has taken a major step toward bridging the gap between academic training and industry practice through a new partnership with Makerere

University's College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB). The collaboration was highlighted during a strategic site visit to SAF led by Dr. Sylvia Nalubwama of CoVAB, alongside SAF's Chief Operations Officer, Dr. Abu Mayanja. The visit marked the official launch of the next phase of SAF's graduate training program, designed to provide finalyear students and recent graduates immersive, hands-on experience across the poultry value chain. At a meeting with CoVAB's LIR Department, SAF outlined the scope of training opportunities, including feed mill production, hatchery management, broiler farming, outgrower coordination, and abattoir services. Dr. Mayanja emphasized that the initiative will enhance graduate employability, foster innovation, and build technical capacity in Uganda's poultry industry, where most workers currently acquire skills informally on the job.

The six-month program will combine mentorship with practical training, supported by student facilitation such as rent, internet access, and meals. Selection is merit-based, focusing on adaptability and willingness to learn. SAF representatives assured students that while financial incentives are important, the true value of the program lies in the unique exposure to commercial poultry operations and entrepreneurial competencies.

The initiative reflects a shared commitment to developing industry-ready talent through immersive farm training. It will also fuel innovation by connecting academic research with real-world agribusiness challenges, and Strengthening Uganda's agrifuture by building a robust pipeline of skilled professionals.

# 5



## HUMAN RESOURCES





# CHAPTER SIX

## 6.0 HUMAN RESOURCES

### 6.1 Staff updates

In 2025, CoVAB experienced remarkable staff growth, strengthening its academic and professional community. New appointments, promotions, and training opportunities expanded our human resource base. This growth enhanced teaching, research, and outreach, positioning CoVAB as a leader in veterinary science.

### 6.2 Awards and recognitions

#### 6.2.1 Honoring a Scientific Trailblazer: Prof. George William Lubega



Prof. George William Lubega was recognized by former and current students

On March 28, 2025, the molecular biology alumni community convened at Mestil Hotel in Kampala to celebrate the extraordinary legacy of Prof. George William Lubega, a luminary in Uganda's scientific landscape. The event recognized his decades-long contributions as a mentor, educator, and innovator whose work has shaped generations of scientists.

Dr. Claire Mack Mugasa, Dean at Makerere University, hailed Prof. Lubega as a "father figure in science," acknowledging his pivotal role in nurturing future leaders. Esteemed colleagues such as Dr. Kato Charles Drago, Prof. Richard Echodu, and Prof. John David Kabasa

shared heartfelt reflections on his mentorship, personal influence, and instrumental role in developing academic programs. Prof. Lubega expressed deep gratitude for the recognition and paid homage to his own mentors. He highlighted milestones in his career, including the development of patented vaccines for trypanosomiasis, and credited Makerere University for supporting his scientific journey. The gathering concluded with a call to action: to honor Prof. Lubega's legacy by establishing a Molecular Biologists' Association, ensuring the continuation of his vision for scientific excellence and mentorship in Uganda.

### 6.2.2. CoVAB Heads of Departments Join Strategic Leadership Training at CoBAMS



Dr. Dorothy Nampanzira (L) and Dr. Kokas Okwap (Center) attended the training

Heads of Departments from CoVAB were among the first cohort of university managers to participate in the five-day Strategic Leadership Training organized by the School of Business under the College of Business and Management Sciences (CoBAMS). Held from 7–11 July 2025, the training significantly enhanced leadership capacity across Makerere University by strengthening skills in strategic decisionmaking, organizational culture, communication, and change management, while exposing participants to contemporary leadership concepts and adaptive styles suited to higher education. It also fostered a renewed commitment to lifelong learning and professional leadership development, as emphasized by CoBAMS leadership, and deepened collaboration among university managers to ensure alignment with Makerere’s strategic goals.

### 6.2.3. Prof. Lawrence Mugisha Appointed Chair as UNCST Inaugurates 7th National Biosafety Committee



Prof. Lawrence Mugisha (Center in pink shirt) appointed committee Chairperson of the **Uganda National Council for Science and Technology (UNCST)**



The Uganda National Council for Science and Technology (UNCST) inaugurated the 7th National Biosafety Committee (NBC), marking a new chapter in the country's efforts to strengthen biosafety governance and promote responsible innovation in science and technology. The inauguration ceremony brought together senior officials, scientists, and stakeholders committed to advancing Uganda's biosafety agenda. The NBC will play a critical role in guiding policy, reviewing applications for biotechnology research, and ensuring that scientific innovations are developed and applied safely for the benefit of society.

During the event, CoVAB's Prof. Lawrence Mugisha was appointed as the new committee Chairperson. He expressed gratitude for the appointment and pledged to work closely with colleagues to uphold biosafety standards. "I am honored to serve as Chairperson of the 7th NBC, and I look forward to advancing Uganda's biosafety agenda while ensuring responsible innovation in science and technology," he said. The NBC's work is expected to contribute to Uganda's growing reputation as a leader in biotechnology and biosafety regulation in the region, aligning with national priorities for science, technology and innovation.

#### 6.2.4 Prof. Lawrence Mugisha Ranked Uganda's Top Scientist in Global One Health Index Rankings



Prof. Lawrence Mugisha captured at the closing of the Biorisk Training at CoVAB, October 22<sup>nd</sup>, 2025.

Prof. Lawrence Mugisha from CoVAB emerged as the highest-ranked Ugandan researcher in One Health disciplines in the newly released 2026 Medical and Health Sciences HIndex Rankings. The global rankings track real data on researchers making significant contributions in publications, innovation, and knowledge translation. Prof. Mugisha's work spans Animal Health, Human Health, Ecosystem Health, and primate disease surveillance, placing him at the forefront of Uganda's scientific community.

He described the recognition as a validation of Uganda's growing role in advancing One Health research. *"For me, this ranking is a sign of our shared journey and validates our deep commitment to bridging Animal Health, Human Health, and Ecosystem Health,"* he said. Prof. Mugisha extended appreciation to his students, collaborators, and colleagues at Makerere and across the globe, noting their collective efforts in pushing the boundaries of science. He emphasized the importance of continued



innovation and collaboration to deliver meaningful solutions to health challenges affecting both humans and animals.

#### 6.2.5. Prof. Savino Biryomumaisho appointed to the First Uganda Veterinary Council



Prof. Savino Biryomumaisho (3<sup>rd</sup> from L), among the distinguished professionals inaugurated to strengthen veterinary regulation and ethics in Uganda.

Prof. Savino Biryomumaisho from CoVAB was among the distinguished professionals sworn in as inaugural members of the Uganda Veterinary Council (UVC), marking a historic step in strengthening professionalism and ethics within Uganda's veterinary industry. Prof. Savino Biryomumaisho represents veterinary schools, faculties, or universities recognised by the council. Other members include Dr. James Kakungulu, representing the Commissioner responsible for animal health, Dr. Caroline Asiimwe for Uganda Veterinary Association, Dr. Michael Muwonge, Balam Fred Okwera, Nelly Isyangi Ajangale, Dr. Patrick Atimnedi, and Dr. Alice Hope Banga. The inauguration ceremony, held at MAAIF was presided over by the Minister of State for Animal Industry, Hon. Lt. Col (Rtd) Bright Rwamirama. The Minister emphasized the significance of this

milestone, tracing veterinary regulation back to the Veterinary Surgeon Act of 1958, which established the Uganda Veterinary Board. He noted that the Act has since been repealed and replaced by the Veterinary Practitioners Act No. 7, modernizing governance and regulation of the profession. The swearing-in of the Council closes a long-standing gap and ushers in a new era of structured oversight.

Hon. Rwamirama urged the Council members to uphold compliance with laws and professional standards, while supporting government policies in animal health and production. He highlighted the importance of setting benchmarks that will enable Uganda to compete favorably in regional and international markets, particularly in areas such as meat inspection, animal welfare, and veterinary practice regulation.

### 6.2.6. Buyana Farm Management Transition: Dr. Wasswa Hands Over to Frances Nansubuga



R-L Dr. Wasswa, outgoing farm manager, Prof. Mwiine, CoVAB Principal and Ms. Nansubuga, incoming manager, at the handover meeting

Buyana Farm, a flagship innovation and outreach site under the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), Makerere University, has entered a new chapter following the official handover of management from Dr. Wasswa to Ms. Nansubuga. The ceremony, held at the farm premises, was attended by Makerere University officials, farm staff, local community members, and an audit team. It marked the conclusion of Dr. Wasswa's 19 years of headship, during which he advanced the farm's mission in agricultural research, practical training, and community engagement.

College Principal Prof. Frank Norbert Mwiine announced the transition, recalling Dr. Wasswa to the college and appointing Ms. Nansubuga as the new manager. "To Ms. Nansubuga, we say: enter with confidence and purpose. You inherit a legacy of resilience and innovation," Prof. Mwiine remarked. Ms. Nansubuga was encouraged to strengthen stakeholder relationships and continue the farm's legacy. Buyana Farm remains central to CoVAB's outreach and research, with recruitment of additional staff ongoing.



### 6.2.7 End-of-Year Get-Together

In a spirited close to 2025, the principal and management of CoVAB hosted an end-of-year get-together on Friday 12th, December, 2025, at Ruth Keesling Gardens, which brought colleagues, friends, and partners together to celebrate achievements and reflect on the year's journey. The event highlighted the team's resilience, creativity, and shared commitment to innovation and growth. Addressing

attendees, Prof. Mwiine emphasized the importance of unity and perseverance, noting that every challenge faced during the year became an opportunity to learn and strengthen bonds. The gathering was described as more than a celebration; it was a moment to honor friendships, teamwork, and the collective vision for the future.









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