



MAKERERE UNIVERSITY

# COLLEGE OF VETERINARY MEDICINE, ANIMAL RESOURCES AND BIOSECURITY

CoVAB

# NEWSLETTER

January - March 2026



## CoVAB Advances in Bacteriophage Research to Fight Superbugs

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## Word from the Principal



**Prof. Norbert Frank Mwiine**  
Principal, College of Veterinary  
Medicine, Animal Resources and  
Biosecurity (CoVAB)

Welcome to this issue of the CoVAB Newsletter for the period January to March 2026. The College of Veterinary Medicine, Animal Resources and Biosecurity, Makerere University is committed to contribute towards the development of the nation through the varied activities we undertake. The College has continued to undertake research and this has had tremendous impact in the communities by solving societal challenges. This has been made possible through a concerted effort of the stakeholders and I wish to acknowledge everyone for the

invaluable input into the teaching, learning, research, innovation and community outreaches we had over the period.

This newsletter highlights some of our recent achievements and initiatives in this endeavor. I wish to acknowledge everyone's contribution towards this noble cause.

## CoVAB Advances in Bacteriophage Research to Fight Superbugs

A section of the stakeholders at the First Symposium on Bacteriophage Research and Applications held in 2025 at Makerere University

In the effort to combat microbial resistance, (AMR) the College of Veterinary Medicine, Animal Resources and Biosecurity, Makerere University has emerged as a hub for pioneering bacteriophage (phage) research in East Africa, focusing on combating AMR in both human and animal health.

Phages or bacteriophages in full are specialized viruses that infect, replicate within, and kill specific bacteria. Known as the most abundant biological entities on Earth, they act as natural bacteria-killers, commonly used in therapeutics to treat antibiotic-resistant infections.

Following the First Symposium on Bacteriophage Research and Applications held in 2025, CoVAB showcased and continues to demonstrate significant achievements and collaborations



*A section of the stakeholders at the First Symposium on Bacteriophage Research and Applications held in 2025 at Makerere University*

aimed at developing phage-based alternatives to antibiotics. Remarkable progress has been made, in partnership with local and international researchers, policymakers, and representatives from other Ugandan Universities, and global partners including the UK's Medicines and Healthcare Products Regulatory Agency (MHRA) and Phages for Global

Health.

Dr. Jesca Nakavuma, is a leading phage researcher at CoVAB. She explains that phage therapy could revolutionize Uganda's fight against drug-resistant infections in both poultry and humans. Her previous studies include isolating lytic bacteriophages targeting multidrug-resistant *Escherichia coli*

from poultry farms, offering new hope for managing colibacillosis, a major cause of losses in the Ugandan poultry industry.

The college continues to contribute to building local capacity in phage research through teaching and learning, research and outreach, as well as promoting ongoing efforts towards regulatory frameworks, and integrating phage applications into national AMR control strategies. The essence is to reduce dependence on imported



Dr. Jesca Nakavuma, the mother of phages research in Uganda

biological solutions by developing homegrown technologies.

Makerere researchers are also contributing to new bacteriophage discoveries aimed at drug-resistant pathogens, such as carbapenem-resistant *Klebsiella pneumoniae*, according to a 2026 open-access study in *Biology Direct*. These Ugandan-isolated phages demonstrated strong lytic activity and genetic safety for potential therapeutic use.

## AFRISA Graduates Over 165 Skilled Agripreneurs at Makerere University

On March 31, 2026, the Africa Institute for Strategic Animal Resource Services and Development (AFRISA), under Makerere University's College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), graduated more than 165 students with certificates and diplomas. The ceremony at Ruth Keesling's Gardens marked a milestone in AFRISA's mission to blend academic knowledge with practical industry skills.

### Government Commendation

Representing the Minister of State for Animal Industry, Dr. Anna Rose Okurut Ademun commended AFRISA for equipping graduates with practical competencies that directly contribute to Uganda's agricultural transformation.



Dr. Anna Rose Okurut Ademun represented MAAIF Minister.



Some of the graduands

**"AFRISA is producing not just job seekers, but job creators who will drive innovation and community empowerment." – Hon. Bright Rwamirama (via Dr. Ademun)**

### Makerere's Commitment to Transformation

Makerere University Vice Chancellor Prof. Barnabas Nawangwe, represented by Prof. Julius Kikoma, hailed AFRISA's role in extending knowledge beyond the ivory tower. He emphasized that AFRISA has trained thousands of youths and women, supported livestock-based enterprises, and built strong partnerships with government and NGOs.



Prof. Julius Kikoma represented the Vice Chancellor

**"AFRISA is not just an institute, but a movement transforming education, empowering young people, and restoring dignity through productivity." – Prof. Julius Kikoma**

### Specialized Skills for National Development

Prof. Frank Norbert Mwiine, Principal of CoVAB, applauded graduates for embracing specialized skills in the animal industry. He stressed that practical training in areas such as the leather industry is vital for reducing losses and meeting Uganda's development needs.



Prof. Frank Norbert Mwiine, Principal

**“You have not just studied animal resources—you have experienced them, managed them, and transformed them. You are therefore not job seekers, so go out and serve.” – Prof. Frank Norbert Mwiine**

### Impact and Legacy

Since its establishment in 2010, AFRISA has emerged as a model of excellence in competence-based education. Its graduates have become agripreneurs, veterinary professionals, and community leaders, reshaping Uganda's agricultural landscape. The institute continues to position itself as a driver of innovation, empowerment, and sustainable economic growth.

### Learners' Testimonies

“My journey at Makerere University through the AFRISA platform has been nothing short of transformative. It bridged the gap between academic theory



Mr. Andrew Kalyango

and practical community impact, equipping me with tools that extend far beyond the classroom. Pursuing a Diploma in Feed Industry and Business gave me specialized expertise in feed formulation and production. I developed a Core Layer Concentrate designed to naturally boost the immunity of birds. I established a Poultry Project where I shared modern husbandry techniques and quality feed solutions with local farmers.

I am Nuweniyine Ruth, I pursued a Diploma in Dairy Industry and Business. My yoghurt project, *Dammie Yoghurt*, has been a truly life-changing experience. What began as a simple academic requirement gradually evolved into a meaningful venture that allowed me to apply classroom knowledge to real-life problem-solving.

My name is Ssuubi Derrick graduating with a Diploma in Feed Industry and Business. Through my studies, I have gained valuable practical and technical skills in feed formulation, production, and agribusiness management. The knowledge and hands-on experience I acquired empowered me to start my own company, *Avian Nutrition Limited*, where I produce high-quality poultry feeds, particularly broiler pellets. I chose pelletized feeds because they significantly reduce feed wastage and promote faster growth in birds, which in turn improves productivity for farmers.



Mr. Ssuubi Derrick



Ms Nuweniyine Ruth

# E-JUST Explores Partnerships with Makerere's CoVAB



provided firsthand insight into CoVAB's research capacity and infrastructure supporting innovation in veterinary medicine and public health.

## Presentation and Dialogue

Prof. Nasr delivered a presentation on E-JUST's research interests, highlighting outcomes of the JICA Type 2 project and opportunities for collaboration in pharmacology, pharmaceuticals, and pathobiology. He shared examples such as the development of jojoba oil for wound healing in partnership with a Japanese company, underscoring the potential of industry-linked innovation.

From February 1–4, 2026, Professor Tamer Nasr of the Egypt-Japan University of Science and Technology (E-JUST) visited Makerere University's College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) to explore opportunities for collaboration in academic training, student exchange, and joint research.



Students interact with Prof. Nasr inside the RTC Lab

**“Joint training programmes, exchanges, and collaborative grants will strengthen both institutions and deliver solutions for Africa and beyond.” , Prof. Tamer Nasr**

## Strengthening Academic Ties

Prof. Nasr was formally welcomed by Prof. James Acai Okwe, Deputy Principal of CoVAB, before holding discussions with Prof. Robert Tweyongyere, Dean of the School of Veterinary and Animal Resources. Their meeting emphasized leveraging both institutions' strengths to advance veterinary education and biosecurity research.

**“Collaboration between E-JUST and CoVAB can combine advanced equipment with rich field research environments for impactful outcomes.” – Prof. Tamer Nasr**

## Guided Tour of Research Facilities

Led by the Deputy Principal, Prof. Nasr toured CoVAB's state-of-the-art laboratories, including the Research Centre for Tropical Diseases and Vector Control (RTC Lab), the Centre for Global Biosecurity and Biomolecular Technology (CeBioTech), the Influenza Laboratory, and the Pathology Unit. The visit

## Towards a Formal Partnership

Discussions concluded with a commitment to develop a Memorandum of Understanding (MoU) to support undergraduate, postgraduate, and postdoctoral training. Both institutions expressed enthusiasm for building a partnership that combines E-JUST's advanced facilities with CoVAB's strong field-based research, laying the foundation for impactful collaboration in veterinary science and biosecurity.



## Celebrating Excellence: CoVAB's Best Scientists Honored at Makerere's 76th Graduation

During the second day of Makerere University's 76th Graduation Ceremony, the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) not only presented 318 graduands but also celebrated outstanding academic excellence with special awards to the best scientists.



Some of the Best Scientists, staff of CoVAB who were recognized during the 76th Graduation ceremony pause with their plaques

## CoVAB Engages Nabisunsa Girls' School in Veterinary Outreach

The College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB), Makerere University, extended its outreach to Nabisunsa Girls' School, inspiring students to explore careers in veterinary medicine, animal resources, and biosecurity. The engagement reflected CoVAB's mission to blend academic excellence with community empowerment.

### Inspiring the Next Generation

CoVAB staff and students interacted with learners at Nabisunsa, introducing them to opportunities in veterinary science and animal resource management. The session emphasized the importance of science-driven solutions to Uganda's agricultural and public health challenges.

**"We want young women to see veterinary medicine not just as a profession, but as a calling to transform communities." Assoc. Prof. Clair M. Mugasa, Dean SBLs, who is an alumnus of the School.**

### Practical Demonstrations

The outreach included interactive presentations and demonstrations on animal health, food safety, and biosecurity. Students were encouraged to consider careers in veterinary medicine, biotechnology, and related fields that contribute to national development.

### Building Partnerships

The visit underscored CoVAB's commitment to building partnerships with secondary schools, nurturing interest in science disciplines, and preparing future professionals who will advance Uganda's agricultural and veterinary sectors.

**"Early exposure to science careers empowers students to dream bigger and prepare for impactful futures.", Nabisunsa Teacher**

This initiative highlights CoVAB's role not only as a training hub for professionals but also as a mentor institution, inspiring Uganda's youth to embrace science, innovation, and community transformation.

## CoVAB Shines on Day Two of the 76th Makerere University Graduation Ceremony



*A section of CoVAB students who were conferred Diplomas and Degrees of Makerere University*

On 25th February 2026, the College of Veterinary Medicine, Animal Resources and Biosecurity (CoVAB) proudly presented 318 graduands at the 76<sup>th</sup> graduation ceremony held at Freedom Square. These included 11 PhDs, 43 Masters, 256 Undergraduate Degrees, and 8 Diplomas.

### Graduation in Numbers

Across the five-day ceremony, Makerere University graduated a total of 9,295 students. Of these, 4,262 (46%) were female and 5,033 (54%) male. The breakdown included 213 PhDs, 2,503 Masters, 6,343 Bachelors, 206 Postgraduate Diplomas, and 30 Diplomas, cementing Makerere's role as a leading institution in higher education.

### Vice Chancellor's Vision

The Vice Chancellor reaffirmed Makerere's bold transformation

into a research-led university. He highlighted a USD 162 million loan from the Korea Exim Bank to fund landmark infrastructure projects, including new facilities for Medicine, Dentistry, Engineering, and Science & Technology. He also praised the Makerere University Technology and Innovations Centre (MUTIC), which has incubated over 100 projects and established 11 spin-off companies, with ambitious plans to scale up innovation.

### Chancellor's Encouragement

Hon. Dr. Crispus Kiyonga congratulated graduands and emphasized entrepreneurship, research funding, and private sector collaboration. He lauded the Government's UGX 30 billion annual allocation to the Research and Innovations Fund as a cornerstone for advancing Uganda's development goals.

### Minister's Directive on Competence Based learning

Representing Hon. Janet Kataaha Museveni, Hon. Dr. Joyce Moriku Kaducu commended Makerere's contribution to national development. She urged the University to prepare for Competence-Based Education and Training by July 2027, emphasizing practical skills, innovation, and quality assurance across all campuses.

### Commencement Inspiration

Dr. Maggie Kigozi, Chair of the Makerere Endowment Fund, inspired graduates with lessons on responsibility, global opportunities, resilience through failure, and balancing personal and professional life.

## Rita Mwima Defends PhD on Malaria Vector Modeling

Dr. Rita Mwima successfully defended her PhD thesis titled *“Mathematical Modeling and Simulation of Malaria Vector Propagation: A Tool for Evaluation of Novel Control Approaches.”* The defense took place on 4th February 2026 at CoVAB, moderated by Dr. Claire M. Mugasa, Dean of the School of Biosecurity, Biotechnology and Laboratory Sciences (SBLs). The event drew both physical and online participants, reflecting the wide interest in her groundbreaking research.



Rita Mwima Defends PhD on Malaria Vector Modeling

### Groundbreaking Research

Mwima’s study harnesses advanced mathematical modeling and simulation to deepen understanding of malaria vector propagation. Her framework offers policymakers and researchers innovative tools to evaluate emerging control strategies, strengthening public health interventions against one of the world’s most persistent diseases.

### Supervisory Team

Her academic journey was guided by a distinguished supervisory team that included Dr. Jotham Kayondo from the Uganda Virus Institute, Dr. Anne Nanteza, CoVAB, Prof. Austin Burt from Imperial College London. The defense was enriched by critical reflections from the Discussant, Rev. Dr. John Mulindwa Kitayimbwa of Uganda Christian University, who provided valuable insights on methodology and impact.

### Significance

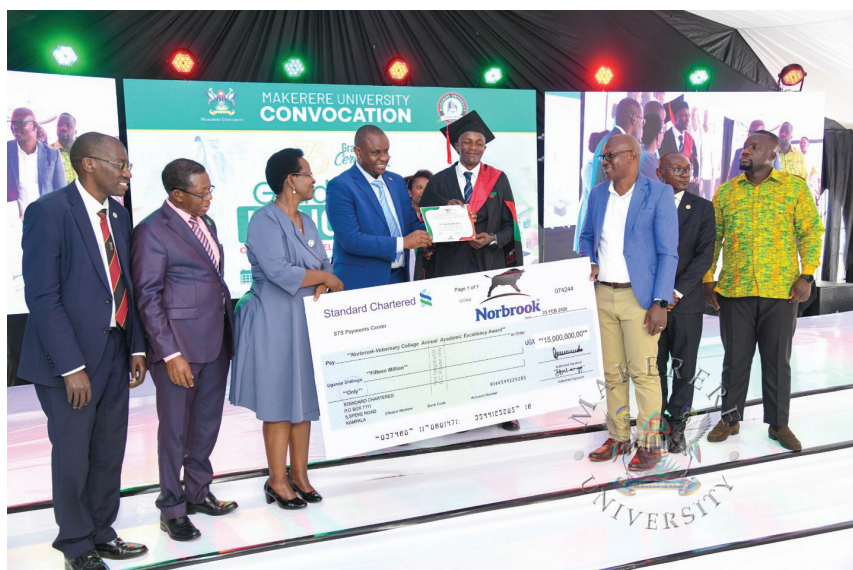
This milestone marks not only a personal achievement for Ms. Mwima but also a boost to Uganda’s contribution to global malaria research. Her findings are expected to inform both local and international efforts to reduce malaria transmission and improve community health outcomes. CoVAB celebrates this achievement as a testament to its commitment to advancing science, innovation, and public health.

## UVA Celebrates Class of 2025 – Norbrook Excellence Awards

The Uganda Veterinary Association (UVA) honored Makerere University’s Class of 2025 with a vibrant celebration, highlighted by the Norbrook Golden Excellence Academic Award (GEAA). The award, worth 15 million Uganda Shillings, was shared among the three best Veterinary Medicine graduates.

### Award Winners – Class of 2025

- Dr. Ronald Fashaho – sh7m
- Dr. Ahmed Ssebagala – sh4m
- Dr. Alfred Tokuma – sh4m



Dr. Ssebagala, tied with Dr. Tokuma for second place. All three graduates left Makerere's 75th Graduation Ceremony not only with degrees but also with financial recognition for their academic excellence.

### A Tradition of Excellence

This marks the fourth consecutive year that Norbrook Uganda Limited has partnered with UVA and CoVAB to reward top Veterinary Medicine students. Previous awardees include:

- **2024:** Dr. Dennis Kawuma, Dr. Raymond Kyamukama, Dr. Jonathan Atutabira

- **2023:** Dr. Elizabeth Owemigisha, Dr. Polly Nagaba, Dr. Alice Namata
- **2022:** Dr. Alex Kyabarongo, Dr. David Ojangole, Dr. Ivan Wafula

### Celebration & Outreach

The award ceremony was part of the Convocation attended by Chancellor Dr. Crispus Kiyonga, Vice Chancellor Prof. Barnabas Nawangwe, and UVA leadership. Earlier, UVA hosted a cake-cutting event and a week-long membership registration drive, targeting over 60 new Veterinary Medicine graduates. More than 40

graduands registered, including Dr. Phiona Katushabe and Dr. Solomon Kiggundu.

### Impact

Norbrook, a global leader in veterinary pharmaceuticals, continues to support excellence in veterinary education. The GEAA not only motivates students but also strengthens collaboration between academia, industry, and professional associations, ensuring Uganda's veterinary graduates are recognized and empowered to impact animal health and biosecurity.

## Staff Promotions



Assoc. Prof. Kankya promoted to full Professor



Dr. Claire M. Mugasa, promoted to Associate Professor.

#### EDITORIAL TEAM

1. Prof. Frank Norbert Mwiine, Principal
2. Prof. Robert Tweyongyere, Dean SVAR
3. Dr. Claire M. Mugasa, Dean SBLS
4. Ms. Harriet Musinguzi, Principal Comm. Officer
5. Mr. Brooks Musinguzi, IT Officer
6. Ms. Eunice Rukundo, Deputy Chief-PRO
7. Mr. Agaba Issa Mugabo, Brand/Marketing Officer

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