



ABRIDGED REPORT 2020

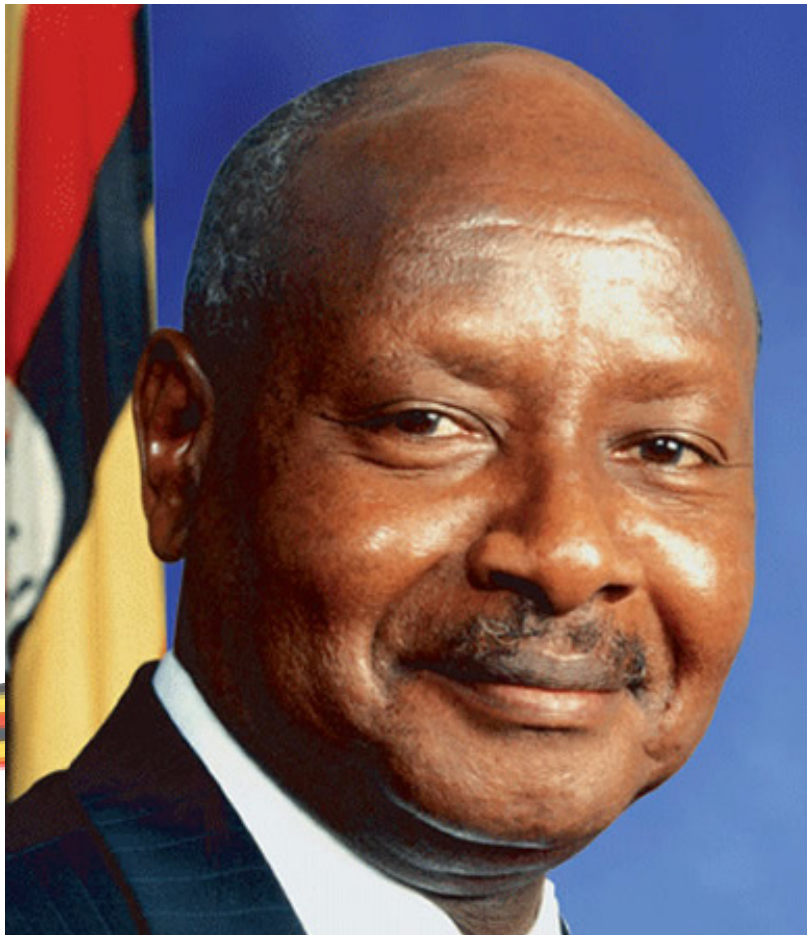
MAKERERE UNIVERSITY
COLLEGE OF VETERINARY MEDICINE,
ANIMAL RESOURCES AND BIOSECURITY

www.covab.mak.ac.ug

REPUBLIC OF



UGANDA



H.E Gen. Yoweri Tibuhaburwa Kaguta Museveni
President of the Republic of Uganda



Hon. Janet Kataaha Museveni
First Lady and Minister of Education and Sports.

University Administration



Prof. Ezra Suruma
Chancellor, Makerere University



Mrs. Lorna Magara
Chairperson, University Council



Prof. Barnabas Nawangwe
Vice Chancellor, Makerere University



Makerere University



COLLEGE ADMINISTRATION



Prof. John David Kabasa
PRINCIPAL, COVAB



Dr. Samuel Majalija
DEPUTY PRINCIPAL, COVAB



Dr. Tweyongyere Robert
**DEAN,
SCHOOL OF VETERINARY MEDICINE & ANIMAL
RESOURCES**



Dr Frank Mwiine.
**DEAN,
SCHOOL OF BIOSECURITY, BIOTECHNICAL &
LABORATORY SCIENCES**

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January 2021



Foreword

We are pleased to present to you the 2020 report. This abridged version highlights select achievements of our University College.

The year AD 2020 was unique and historical; being the era when COVID-19 pandemic struck the entire global civilization and crushed many local economies. AD 2020 has thus, been a turning point, literally, shaking everything. Our systems were laid bare; and adjustment to a new normal became urgent. Despite this assault, we shall be forever grateful, that our scientists, technocrats, administrators and support teams, wriggled through; emerging with certain key outputs, which we have been able to share here. The teams kept focused on accelerating efforts for advancing Makerere University's

vision of being the number one leading institution for academic excellence and innovations in Africa. We have continued to place emphasis on building skilled human capital while driving transformative research and innovation, teaching, learning and service. As you will find in subsequent sections, despite the pandemic ecosystem, AD 2020 was marked by vital initiatives at the college. We received tremendous support from the Government of Uganda, local and international partners.

The college mandate of continuously improving livelihoods, creating a healthier, wealthier and safer society through animal value, was thus greatly reinforced. We have strengthened blended learning approaches, putting more emphasis on E-Learning programs as a way of not

only controlling COVID-19 virus spread, but also as a mechanism for enhancing access to education. It has been exciting to see both students and staff graciously embrace the e-system under a new normal, challenges notwithstanding.

With pride therefore, we wish to salute our staff and partners; recognize the sacrifice, service, value and impact of the work we have attained together. Without this contribution, the drive towards building COVAB as a new generation of veterinary colleges in Africa and beyond would not have been realized.

May the Eternal God forever bless you all.

For God and My Country! As We Build for the Future!

Prof. John David Kabasa
PRINCIPAL COVAB



MISSION

To Drive Transformative Research,
Knowledge, Skills, Innovations
and Services for the Continuous
Improvement of Society

Vision

Healthier, Wealthier and Safer
Societies Through Animal
Value



Research ... is nothing but a state of mind-a friendly, welcoming attitude toward change; going out to look for a change instead of waiting for it to come. Research, for practical men, is an effort to do things better....

Charles F. Kettering

1.

RESEARCH AND INNOVATION



INTRODUCTION

Despite the COVID-19 pandemic that continues to challenge the world, COVAB Scientists are even much more established in contributing to the veterinary, as well as human health sector through research.

1.1 RESEARCH INITIATIVES

1.1.1. Enhancing Efficiency of Emerging Edible Insects And Protein Value Addition In Uganda (Lead Scientist -Dr. Claire Mugasa)



The Principal of the College, Prof. John David Kabasa (first on the left) together with the VERIF Project team pose for a group photo during the inception meeting.

Makerere university researchers got their enthusiasm much higher in promoting food security. This was showcased on 1st December 2020 when an inception meeting on the Enhancement of Efficiency on emerging Entomic (insects') meat and protein Value Addition in Uganda project was held at the COVAB.



Dr. Claire Mugasa, the Principal Investigator for the VERIF Project giving her remarks during the project inception Meeting in the Principal's Board Room.

The Project envisages advancement in technology and innovations in entomic (insects') meat to improve livelihoods in Uganda, fronting Grasshoppers (Nsenene) a delicacy for many as food, and the black soldier Fly as a feed for animals.

1.1.2. Initiative for Controlling Antimicrobial Usage in Uganda's Livestock Farming Systems (Lead Scientist -Associate Prof. Lawrence Mugisha)

Antimicrobial usage is one of the public health challenges which Uganda is currently grappling with.

Associate Prof. Lawrence Mugisha



Therefore, COVAB scientists found the need to end this challenge through the creation of a monitoring and quantifying IT system to map out antimicrobial usage by livestock farmers.

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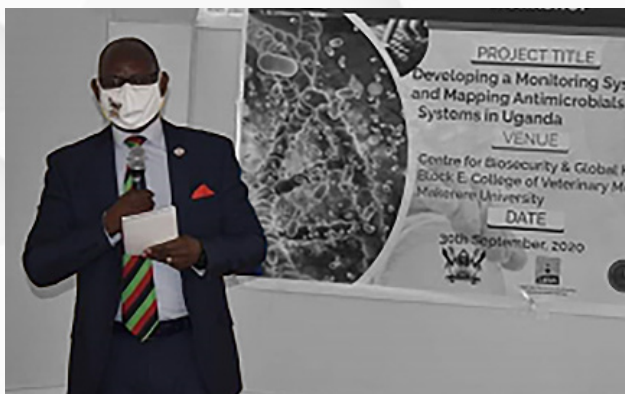
This project titled; *Developing a Monitoring System for Quantifying and Mapping Antimicrobials used in Livestock Farming Systems in Uganda* was launched on 30th September 2020 at the college Center for Biosecurity and Global health. It is spearheaded by Dr. Lawrence Mugisha.



Prof. Barnabas Nawangwe, Prof. John David Kabasa and Dr. Lawrence Mugisha (in the middle) together with project stakeholders pose for a group photo during VAMS Research and IT System Launch at the College Center for Biosecurity and Global Health



A section of Participants in the VAMS Research and IT System's Project Launch at the College Center for Biosecurity and Global Health.



Prof. Barnabas Nawangwe (left) and Prof John David Kabasa (right) making their remarks during the VAMS Research and IT System's launch at the College Center for Biosecurity and Global Health.

1.1.3. Launching the Research Laboratory for Tropical Disease And Vector Control (RTC Laboratory) (Lead Scientist -Dr. Vudriko Patrick)

With continued contribution towards the Veterinary sector, COVAB Scientists officially launched the Research Center for Tropical Diseases and Vector Control (RTC) diagnostic Laboratory on 20th February 2020.

The ceremony was officiated by the Commissioner Animal Health in Uganda, Dr. Anna Rose Ademun. The event was coupled with a courtesy visit to COVAB by the Makerere University Deputy Vice Chancellor



Dr. Anna Rose Ademun (left) officially launching the RTC Diagnostic Laboratory. With her stands Associate Prof. Robert Tweyongyere (middle) and the head of RTC Diagnostic Laboratory, Dr. Patrick Vudriko (right).



Delegates at the launch of the RTC Diagnostic Laboratory pose for a group photo at Makerere University.

for Research and Academic Affairs, Associate Prof. Umar Kakumba, who had a cordial meeting with the Dean School of Veterinary Medicine, Prof Robert Tweyongyere together with Dr. Eric, a representative from Zoetis A.L.P.H.A.

With support from Zoetis A.L.P.H.A. Initiative, the Research Center for Tropical Diseases and Vector Control (RTC) Diagnostic Laboratory was established to offer a wide range of new diagnostic services for poultry, ruminants, swine and pets. The new laboratory also offers vaccination efficacy monitoring tests to assure that poultry, cattle and pets that are vaccinated have the right amount of antibodies to protect them against diseases. Feed processors and farmers can also get mycotoxin analysis from feeds at this diagnostic laboratory. It also strives to offer quality diagnostic services at affordable cost with client satisfaction as a priority.

Associate Prof. Umar Kakumba (DVC AA) was

also delighted to be showed around different facility developments in the Research Center for Tick& Tick borne Disease control (RTC) that has acquired high quality serology equipment, with aid from the Japanese international cooperation Agency and Zoetis A.L.P.H.A. Part from Tick acaricides the facility also test feeds for mycotoxin.



Associate Prof Umar Kakumba (DVC AA) (right) in a meeting with Associate Prof. Robert Tweyongyere (middle) and Dr. Eric (left).



1.1.4. Initiative for Paratuberculosis Vaccine development (*Lead Scientist -Associate Prof. Okuni Julius*)

On 14th February 2020, the Germany Embassy paid a courtesy visit to COVAB in a bid of drawing more strategies of successful furthering of the Para-Tuberculosis Research. Spearheaded by COVAB, the partnering veterinary researchers were seeking to find a vaccine for Paratuberculosis. Paratuberculosis is a domestic ruminant disease that is also suspected to have links with the crohn's disease in humans caused by the Mycobacterium Paratuberculosis.

The project brought on board different stakeholders including University of Göttingen, University of Khartoum, Ibn Sina Specialized Hospital, Sudan and different veterinarians across the continent.

On 10th February 2020, the DFG Project on Infectiology held a workshop to share ideas on the control of Mycobacterium Paratuberculosis in Africa, at Protea- by Marriot Hotel, Entebbe.

The Vice Chancellor, in representation by Prof. John David Kabasa applauded the Evolution of Mycobacterium Paratuberculosis Project for ensuring that the environment where the farmers and his animals are, is safe and clean. "Farmers must be prosperous and have employment from their animals. This project is very important and critical for the development of farmers and employment of people," stated Prof. Kabasa.



The Chief Veterinary Officer and Commissioner Animal Health, MAAIF, Dr. Anna Rose Ademun pose for a photo with the German Research Foundation delegates and Makerere University Collaborators

On giving a brief background of the Winter School, Dr. Ahmed Ab El Wahed emphasized the strong need for collaboration with farmers and policy makers to know what they need.

The Deputy Director, Directorate of Research and Graduate Training, in representation by Dr. Robert Wamala applauded the German Research Foundation for sponsoring this initiative. He further commended Makerere University's Vice Chancellor and Ugandan Government for strongly supporting research.

The Principal, COVAB, who was represented by Associate Prof. Samuel Majalija, appreciated the German government for supporting African activities. He as well commended the One Health Agenda which is applied in addressing African problems.

The Dean School of Veterinary Medicine COVAB, Associate Prof. Robert Tweyongyere informed delegates that farmers with dairy animals face a lot of Paratuberculosis



challenges which needs real time diagnosis. He therefore implored upon collaborators to extend solutions to this problem across all regions in Africa.

“Correct treatment requires a correct diagnosis.”

In representation by Dr. Joseph Erume, the Head of Department Biomolecular Resources and Biolab Sciences he termed Paratuberculosis as an insidious agent which requires joint effort to be addressed.

“In 1990, we encountered an experience where two zero grazing units in Kampala closed down due to Paratuberculosis. As a department, we are happy to host this gathering which is a great opportunity to engage with different stakeholders to devise ways of controlling this disease,” stated Dr. Erume.

The Evolution of

Mycobacterium Paratuberculosis Initiative is one of the German-African Cooperation Projects in Infectiology, funded by the German Research Foundation. According to Associate Prof. Okuni's 2013 scientific research, *Mycobacterium avium* subspecies



Delegates from the Germany Embassy, together with other researchers pose for a group photo at CoVAB on 14th February 2020.

paratuberculosis (MAP) is an emerging pathogen in many livestock and wildlife populations around the world.

Concerns range from the serious economic impacts on livestock productivity to its suspected role in the human inflammatory bowel disease syndrome. Milk and stool of infected animals are the main vehicles through which the organism spreads from infected to susceptible hosts. Infection with this microorganism results in substantial farming economic losses and animal morbidity.

The convention brought together scientists from

different African countries, Academia, Policy makers, students, and the media, who brain stormed ideas on how to suitably address the issue of paratuberculosis in Africa's livestock.

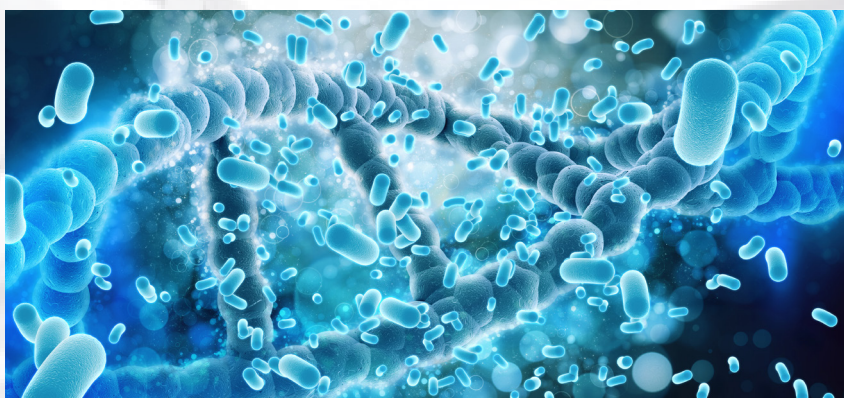
As the Guest of Honor, the Chief Veterinary Officer and Commissioner Animal Health, MAAIF, Dr. Anna Rose Ademun as well appreciated the German Research Foundation and CoVAB for their endeavors on addressing health issues pressing the African continent.

She further informed delegates that government rolled out several programs to address issues in the ecosystem. She added that Paratuberculosis never gets enough attention and this form informs the government to include the neglected sector.

"Paratuberculosis as a zoonotic disease tends to hit us away in silence. Therefore, we need to rearrange our priorities in zoonotic diseases control. The joint strength exhibited in this meeting gives hope that this issue will be addressed," said Dr. Ademun. The coordinator of the 2020 Winter School workshop,

Associate Prof. Julius Okuni welcomed all delegates. He further informed them of project's collaboration with the Government of Uganda, which has provided policy to see that Paratuberculosis among the country's livestock is addressed.

He also reported that this workshop was one of his milestones in graduate trainings, as they build capacities among farmers to address the issue.





1.1.5. Pigboost Project Launched to Empower Pig Farmers in Uganda (Lead Scientist -Associate Prof. Clovice Kankya)



Collaborative partners from UK; AbacusBio and University of Edinburgh together with Vetline Services and Makerere University in Uganda held an inception workshop for the PigBoost Project, which ran from 20th to 22nd January 2020 at Ridar Hotel, Seeta Mukono District.

The workshop was coupled with visits to pig farmers in Mukono District on 22nd January 2020 for a pig tagging initiative. The pig tagging initiative is one of PigBoost's data driven activity which will influence pig farmers' decisions to improve Uganda's pig production, health, and welfare. It will also inspire proper management of smallholder pig farms

through accurate recording of breeding, production and disease data.

Under its organization by the Department of Biosecurity, Ecosystems and Veterinary Public Health (BEP), Makerere University, the workshop was based on the theme; Sustainable data driven pig production for Uganda.

The PigBoost project focuses on digital transformation of the Vetline pig Artificial Insemination (AI) business and the pig production supply chain, which is digitized for accurate recording of breeding, production and disease data. It is funded by the Government of UK through Innovate UK.

The meeting commenced with opening remarks from the Commissioner Animal Health- Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Dr. Anna Rose Ademun, who was represented by Dr. Robert Mwebe, a Senior Veterinary Officer at MAAIF.

In her remarks, she appreciated the PigBoost project, mentioning that it will address a number of issues in the pig production industry. She added that MAAIF is committed to improve animal production, health, and extension services.

The Commissioner affirmed the need for private partnerships to achieve this improvement in the animal industry. She honored the PigBoost project's focus, assuring that the improvement of data shows that this project is timely, since farmers need to know the different breeds of pigs. She also informed delegates that the Ministry is committed to improve the nutrition of animals. Pig farmers will also be informed about the best feeds for pigs and also get to know about the genetic improvements through



Artificial Insemination.

While she officially opened the meeting, Dr. Ademun concluded her remarks by thanking all the development partners in the PigBoost Project. On behalf of the Ministry, she committed herself to work hand in hand with the project's development partners for a positive achievement in the assessment of pig products. She also guaranteed that this partnership will ensure that the use of drugs is controlled in the animal industry to address concerns of Anti-

He petitioned the Government of Uganda to ensure that technical expertise is enhanced in every district.

Vetline Services is an agricultural consultancy firm, with preference towards the pig industry. It uses innovative technologies and services that include pig artificial insemination, no-smell, no-cleaning method of pig rearing.

The Managing Director of AbacusBio International, Dr. Timothy Byrne together with a Consultant from AbacusBio,

actors such as scientists, farmers, technicians, veterinarians, and business managers from Uganda, New Zealand, and the United Kingdom to share ideas on how to boost data recording for farm performance benchmarking, genetic and animal health improvement, as well as disease management in Uganda.

The PigBoost tool was developed from the existing Dtreo data platform, developed by AbacusBio, which is an agri-business firm. Breeding records and delivery of artificial insemination services by Vetline Services will be digitized allowing accurate recording of breeding, production and disease data. Data will then be used to benchmark individual farm performance and provide feedback to farmers.



Dr. Robert Mwebe reading out the Animal Health Commissioner's remarks to delegates during the PigBoost Inception Meeting on 20th January 2020 at Ridar Hotel Mukono District.

Microbial Resistance.

The Executive Director of Vetline Services, Dr. Leonard Kawule recognized the Government of Uganda for their support in developing his career as a Veterinarian at National Animal Genetic Resource and Data Bank (NAGRC&DB). He assured delegates that pig farmers need a system that easily blends with them which the PigBoost Project will avail.

Dr. Bruno Santos introduced the PigBoost project and its tool, DTREO, which will help to monitor pig production performance in Uganda.

Dr. Byrne informed delegates that AI technicians and pig farmers will be trained on how to use this tool, which will also serve as an early warning system regarding issues on pig farms in the country.

The three day workshop brought together pig production supply chain



A pig tagging initiative which was conducted at one of the farms in Mukono District.

1.1.6 Covab Trail in Government Funded Research & Innovation Grants (RIF)



1.1.6.1 Projects Won by Researchers in the College Under RIF 1

S/N	PROJECT TITLE	PRINCIPAL INVESTIGATOR
1	Agrochemical Residues in Meat and Milk of Cattle in the Acaricide-Tick-Resistant infested Areas: A Case Study of Gomba District	Peter Waiswa
2	Antibiotic Usage and Levels of Residues of Antibiotics in Cow Milk in Sentinel Dairy Farms in Mukono District	Sylvia Baluka Angubua
3	Application of Bacteriophages in the Management of Diabetic Foot Wounds Among Patients attending Regional Referral Hospitals in Uganda	Alice Namatovu
4	Application of Drone Technology To Support Control of Livestock Movement and Livestock Welfare in Uganda	Francis Ejobi
5	Assessment of Animal Source Foods Quality and Safety Standards Compliance To Enhance Market Access	Joseph Kungu
6	Assessment of integrated Control of East Coast Fever (Ecf) By induction of Acquired Immunity in Ankole Cattle After Natural infection By Early Diagnosis and Early Treatment	Ann Nanteza
7	Assessment of Major Public Health Threats and Zoonotic infections in Free Rooaming Domestoc Dogs in Selected Districts of Uganda	Terence Odoch
8	Assessment of the Effectiveness of Newcastle Disease Vaccines in the Ugandan Market and the Evaluation of the Vaccination Schedules Used By Poultry Farmers in the Country	Zachary Nsadha
9	Assessment of Veterinary Drug Residues in Milk, Chicken and Eggs and Development of A Residue Monitoring Plan For these Foods in Uganda	John Kateregga
10	Cytokines As Novel therapeutic Agents in the Management of Late Stage Trypanosoma Brucei Rhodesiense Sleeping Sickness: A Preclinical Trial (Cantms)	Charles Drago Kato
	Deciphering the Virome of Tick Along the Wildlife-Livestock interface	Eddie M Wampane
11	Developing A Community-Based Model For integrating Bioenergy and Poultry Production Using Rice Agro-Waste (integrated Bioenergy Agriculture Model)	John David Kabasa
12	Developing Monitoring System For Quantifying and Mapping Antibacterials Used in Livestock Farming Systems in Uganda	Lawrence Mugisha

13	Developing Novel Phytonutraceuticals from Wild Edible Fruits and Vegetables for Mitigating Malnutrition Among Pregnant Women and School Going Children	Anne Juliet Nalunkuma Kazibwe
14	Development of A Students' Practice and Community attachment Model for Enhancement of Youth Employable Skills in the Animal Resources Sector	Maria Nassuna-Musoke
15	Enhancing the Role of Farmers in the Fight Against Antimicrobial Resistance	Dickson Tayebwa
16	Establishment of A Platform to Strengthen Production of Safe and Healthy Dairy and Chicken Derived Foods Using One Health to Counter Antimicrobial Resistance and Drug Residues in Uganda. (Plas-Safe)	Paul SSAJJAKAMBWE
17	Harnessing Microbial Probiotics for Improving Pig Health and Productivity	Samuel Majalija
18	Optimization of the Dosage, Adjuvant and Route for the Candidate Anti-Tick Vaccine	Kokas Ikwap
19	Optimizing Smart Dairy Technologies for Efficient Sustainable Productivity of Dairy Farmers in Uganda	Robert Tweyongyere
20	Peste Des Petits Ruminants (Ppr) in Uganda: Spatial Risk Analysis, Molecular Characterisation and Sero-Prevalence Drivers	Peninah Nsamba
21	Profiling the Role of Escherichia Coli in the Etiology of Piglet Diarrhea in Selected Pig Producing Districts of Central Uganda: towards Adoption or Development of Vaccines for Prevention	Joseph Erume
22	Strengthening the Capacity of Small Holder Fish Farmers and Fisheries Extension officers to Mitigate the Risk of Fish Diseases in Fish Farms in Uganda	Samuel Posian Wamala
23	Strengthening Veterinary Clinical Research, Training and Outreach at Makerere Through A Learner-Centered Herd-Health and Community Action Research Program (Sharp) for Improved Animal Welfare, Health and Productivity	James Okwee-Acai
24	Unravelling the Burden and Transmission Dynamics of Antimicrobial Resistance Between Humans, Animal and Environment	Denis Karuhize BYARUGABA
25	Using a One Health Approach to Develop Feasible Strategies for Surveillance of Antimicrobial Resistance and Stewardship of Antimicrobial Use.	SARAH SYEDDE
26	Using the One Health Approach to Design interventions to Reduce the Fish Disease Burden in Aquaculture Production Systems in Uganda	Irene Naigaga

27	Exploring Potential COVID-19 infection at the Human-Domestic animal interface in Uganda: a Case Study at Selected Hot Spots	John David Kabasa
28	Was the Novel Coronavirus Circulating in Uganda Before Being Detected in China? a Retrospective Study of Humans Sampled Before 2019 in Uganda To assess for IgG antibodies against SARS COV-2	Luke Nyakarahuka
29	Determination of Cross-Species Transmission of COVID-19 at animal-Human interface Using a One Health approach for Improved Disease Surveillance and Control	Jesca Nakavuma
30	Development of a Fluorescent Marker Sanitizer	Francis Ejobi
31	Risk assessment of Heavy Metals in Vegetables Consumed in Kampala Uganda	Andrew Tamale
32	Enhancing Capacity for Mobile and Rapid Field Laboratory Diagnosis of Bovine Trypanosomiasis	Azuba Rose
33	Enhancing the Efficiency of Emerging Entomic Meat and Protein Value Chains in Uganda	Claire Mack Mugasa
34	Epidemiological investigation of Brucellosis in Livestock in Selected Agro-Pastoralist Districts of Eastern Uganda	Frank Norbert Mwiine
35	Genomic Epidemiology and Transmission Dynamics of Zoonotic Tuberculosis in Karamoja as a Predictor for the High TB Prevalence and Poor TB Treatment Outcomes in Karamoja Region.	R
36	Are Domestic animals Reservoirs for Emerging Viral infections: investigating the Role of Domestic animals in the Transmission Dynamics of Ebolaviruses, Marburg Viruses and Coronaviruses in Uganda.	Luke Nyakarahuka
37	Enhancing institutional Capacity for Ethical Conduct of Research involving animals (Icecoria)	Muhangi Denis
38	Accelerating Anti-Tick Vaccine Discovery Using Bioinformatics-Guided Wet Laboratory approaches	Muhanguzi Dennis
39	Assessing Ethical Conflicts and Moral Distress among Veterinarians in Uganda	Samuel George Okech
40	Development of Local Calibrations for Nutritional Evaluation of Commercial Poultry Diets Using Near Infrared Reflectance Spectroscopy (NIRS)	Samuel OKELLO
41	Development and Validation of Lateral Flow Based Multiplex Test Device to Detect and Differentiate SARS COV-2 from Other Human Coronaviruses	Steven Odongo

1.1.7. Presidential Scientific Initiative on Epidemics (PRESIDE) Strengthens the Center for Biosecurity and Global Health (CeBiGH) at COVAB

Uganda and the global community are facing a severe and unprecedented episode of COVID-19 pandemic, the worst of its kind in the history of humanity. The consequences of this shut-down are devastating. Initial estimates indicate mass erosion of Uganda's economy, with millions of Ugandans sliding into abject poverty.

Since 2012, the College of Veterinary Medicine, Animal Resources and Biosecurity has been establishing a Center for Regional Biosecurity and Global Health. The overall aim of initiative is to provide solutions for the preparedness, prevention, response as well

as overall management of complex epidemic biothreats to Uganda and the region.

Thus, in 2020, the Presidential Scientific Initiative on Epidemics (PRESIDE) decided to strengthen the Center for Biosecurity and Global Health with additional research funds (over UGX 3 billion) to contribute to the development of COVID-19 biotech research and establishment of Central Laboratory Animal Research Facilities (CLARF).

PROJECTS AWARDED WERE AS FOLLOWS:

a) Moulding novel subunit vaccine against novel COVID 19 virus using reverse vaccinology. Project Lead:

Dr. Kato Drago Charles, Department of Biotechnical and Diagnostic Sciences.

b) Development of ELISA for SARS-CoV-2 detection using commercially available viral antigens. Project Lead: Associate Prof. Enock Matovu, Department of Biomolecular Resources and Biolab Sciences.

c) Upgrading Central Laboratory Animal Research Facilities for enhanced Vaccine, Drug and Biotech Quality Management. Project Lead: Prof. John David Kabasa

2. Teaching and Learning



2.1 Curricula and Programs Reviewed

To appropriate the market-oriented value-chain education and training, the college has expanded the range of training programs to cater for other occupational opportunities available in the animal world which hitherto were under-harnessed. As a result, the college has transformed from a mono-degree (veterinary medicine) institution of 150 students to a multi-professional and multidisciplinary degree college of over 2000 learners in the following programs:

	PROFESSIONAL TRAINING PROGRAM	DEGREE ENROLMENT (GRADUATE AND UNDERGRADUATE)	DIPLOMA AND CERTIFICATE*
1.	Veterinary Medicine	350	
2.	Biomedical Laboratory Technology	530	-
3.	Animal Production Technology & Management	120	40
4.	Wildlife Health and Management	60	-
5.	Industrial Livestock Farming and Business		
	a. Leather Technology & Industry		
	b. Insect Technology & Industry		
	c. Dairy Technology & Industry		
	d. Feed Technology & Industry		
	e. Meat Technology & Industry		
	f. Fish Technology and Industry		
	g. Avian Technology and Industry	100	150
6.	Livestock Development and Management	50	-
7.	Molecular Biology & Biotechnology	60	-
8.	Natural Products Technology & Value-chains Development	10	-
9.	Epidemiology, Preventive Medicine & Public Health	40	-
10.	Biosecurity and Infectious Disease Management	30	-
11.	Food Animal Health and Production	10	-
12.	Laboratory Sciences and Management	15	50
TOTAL		1375	240

* Diplomas and Certificates are tenable at affiliated institutions (AFRISA and ISTVS)

2.2 Admissions 2019/2020

PROGRAM	NUMBER OF ADMITTED STUDENTS
Bachelors of Veterinary Medicine	76
Bachelors of Biomedical Laboratory Technology	224
Bachelors of Wildlife Health and Managements	11
Bachelors of Industrial Livestock Business	51
Bachelors of Animal Production Technology	23
Diplomas and Certificates	106
Total	491



3. Community Outreach, Knowledge & Technology Transfer





Participants during a workshop on Social media, E-Learning and Cyber Crime held on 13th February 2020.

3.1. Embracing E-Learning and Mitigating Cyber Crime

On 13th February 2020 social media enthusiasts around Makerere University held a workshop at the Makerere University College of Engineering, Design, Art and Technology (CEDAT) to brainstorm ideas on how social media has become an enabler to Effective Communication, E- Learning & Cyber Crime. The engagement sought to dissect the role of social media in higher Education systems and possible strategies to mitigate cyber crime around the university and beyond. With the challenges that were waved by COVID 19 all over the world,



COVAB has continued to embrace E-Learning as a way to control the spread of the corona virus.

3.2. Veterinary Students Conduct a Vaccination Program in Mubende District

COVAB students continue to contribute to good health promotion in the country. This was exhibited on 22nd February 2020 when the Makerere University Veterinary Students' Association organized a health community outreach in Mubende District. During this exercise, a number of kittens and dogs were diagnosed and vaccinated. Students also sensitized the residents on basic animal health and how best dogs can be lived with.



Veterinary students carrying out dog and cat spaying exercises during the community outreach in Mubende district.

4. Human Capital Development



4.1 Broadening Science Disciplines

In line with the value-chain education development paradigm, science discipline specialties at the college have expanded from the nine traditional disciplines of veterinary medicine to embrace at least 22 disciplines essential for comprehensive veterinary medicine, animal resources and biosecurity development. These are summarized below.

MULTIDISCIPLINARY DEPARTMENT	DISCIPLINE SPECIALTIES	FACULTY PER DISCIPLINE	TECHNICAL STAFF
Department of Vet Pharmacy, Clinical & Comparative Medicine (PCM)	Veterinary Surgery	4	1 (temporary)
	Theriogenology and Reproductive Technology	5	1 (retiring)
	Veterinary Medicine	8 (1 is Dean)	2 (temporary)
	Veterinary Pharmacy, Pharmacology & Toxicology	3	1 (temporary)
	Veterinary Pathology	5 (1 retiring)	1
Department of Livestock & Industrial Resources (LIR)	Livestock and Entomic Production Technology	5	1
	Animal Product Technology and Value Addition	3	
	Livestock Economics, Entrepreneurship and Policy	3	
Department of Wildlife & Aquatic Animal Resources Management (WARM)	Wildlife Health and Production	5	1
	Aquatic Health and Production	4	1
	Wildlife and Animal Resources Management	5	1
Department of Bio-technical & Diagnostic Sciences (BDS)	Biomedical Laboratory Technology	3	1 (study leave)
	Microbiology	5 (1 is Deputy Principal)	1
	Immunology & Vaccinology	1	-
	Parasitology & Entomic Vector Technology	3	1
Department of Biomolecular Resources & Biolab Sciences (BBS)	Physiology, Biochemistry & Nutrition	6	3
	Molecular Biology, Computational & Biosynthetic Technology	4 (1 is Dean)	
	Anatomical Sciences	4	
Department of Biosecurity, Ecosystems & Vet Public Health (BEP)	Veterinary Public Health & Food Safety	3	1
	Epidemiology and Preventive Medicine	3 (1 on study leave)	1
	Biosecurity and Ecosystem Health	3 (1 is principal)	1
	Research, Biometry & Decision Sciences	3 (1 on study leave)	

4.2 Human Resource Changes & Promotions

4.2.1 Promotions

1.	Dr. Baluka Sylvia Angubua	M	Promoted to Senior Lecturer	Department of Livestock and Industrial Resources
2.	Dr. Kizito Kahoza Mugimba	M	Lecturer	Attained a Phd

4.2.2 Appointments in Academic Leadership

1.	Associate Prof. Robert Tweyongyere	M	Dean - School of Veterinary Medicine and Animal Resources
2.	Dr. Claire Mack Mugasa	F	Head – Department of Biotechnical and Diagnostic Sciences
3.	Dr. Sarah Agnes Nalule	F	Head–Department of Wildlife and Aquatic Animal Resources

4.2.3 Staff Transfers

1.	Godwin Okiror	M	Human Resource Officer	Transferred to COVAB
2.	Ben Mugisha	M	Custodian	Transferred to CONAS
3.	Godfrey Makubuya	M	Former Human Resource Officer(COVAB)	Transferred to CONAS

4.2.4 Newly Appointed Staff

1.	Dr. Andrew Tamale	M	Department of Wildlife and Aquatic Animal Resources	Lecturer	Appointed w.e.f 4th January 2021
2.	Dr. Celsus Sente	M	Department of Wildlife and Aquatic Animal Resources	Lecturer	Appointed w.e.f 4th January 2021
3.	Dr. Patrick Mawadri	M	Department of Veterinary Pharmacy, Clinical and Comparative Medicine	Assistant Lecturer	Appointed w.e.f 4th January 2021
4.	Dr. Benedicto Byamukama	M	Department of Veterinary Pharmacy, Clinical and Comparative Medicine	Assistant Lecturer	Appointed w.e.f 4th January 2021

4.2.5 Staff Exit from University Service

S/N	NAME	DEPARTMENT	REASON	EFFECTIVE DATE
1	Associate. Prof. John Bosco Nizeyi	Veterinary Pharmacy, Clinical and Comparative Medicine (PCM)	Retirement	9th June 2020
3	Dr. Godfrey Bigirwa- Assistant Lecturer	Veterinary Pharmacy, Clinical and Comparative Medicine (PCM)	Deceased	15th September 2020
4	Ms. Rosette Tumushabe – Lab. Attendant	Veterinary Pharmacy, Clinical and Comparative Medicine (PCM)	Retirement	3rd August 2020
5	Mr. Mukasa Michael Kiberu-Senior Technician	Veterinary Pharmacy, Clinical and Comparative Medicine (PCM)	Retirement	7th August 2020
6	Ms. Joyce Margaret Ekopai- Technician	Wildlife and Aquatic Animal Resources (WAAR)	End of Contract	31st December 2020



ABRIDGED REPORT

2020

