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WOAH Collaborative Centre Reports Activities 2024

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CENTRE INFORMATION

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TOR 1 AND 2: SERVICES PROVIDED

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by WOAHC

Category	Title of activity	Scope
		The workshop identified tuberculosis etiologic,

Disease control (true)	Detection and control of tuberculosis in animals and humans	disease forms, transmission modes, and methods for diagnosis, prevention, and control (37 participants).
Disease control (true)	Paratuberculosis in Animals and Pseudotuberculosis in Sheep	Seminar on diagnosing, preventing, and managing paratuberculosis in animals and pseudotuberculosis in sheep, focusing on veterinary research and international expertise in tuberculosis-related diseases (19 participants).
Disease control (true)	The Internal Medicine and Infectious Diseases Clinic services	The Internal Medicine and Infectious Diseases clinic is considered the first reception unit for cases that visit the college clinic, where the degree and type of injury of the case are evaluated, and they are directed either to receive the full medical service in the clinic or visit clinics with other specialties such as the surgery clinic or reproductive clinic. Providing a diagnosis and treatment service for all cases (about 3241 cases) suffering from internal and infectious diseases. The clinic has a cadre of consultant veterinarians and specialists with different specialties such as cardiology, kidney diseases, liver diseases, and infectious diseases who can diagnose frequent cases at the clinic. The clinic provides certification for dogs traveling internationally.
Disease control (true)	Surgery Clinic services.	The clinic provides the clinical cases of pets, wild and large animals, as well as birds and reptiles, for student training and explanation of the clinical curriculum for the fourth- and fifth-year students, the general and distinguished program, as well as master and PhD students. Along with the framework of continuous education for graduates, the hospital provides the opportunity for veterinarians to be present to follow up on what is new in the methods of diagnosis, treatment, and surgery for animals. The hospital provides a very good opportunity for researchers from the department to conduct the necessary scientific research to be promoted to higher scientific degrees, as they use the facilities of the hospital, including incoming clinical cases, x-ray equipment, sonar and anesthesia equipment, and operations rooms. About 2699 cases were received in 2024.
Disease control (true)	Services Provided by the Veterinary Clinic for Gynaecology, Obstetrics,	It provides diagnostic and treatment services for incoming cases (about 1290 cases in 2024), which serve the community service sector and

	and Artificial Insemination Clinic	environmental affairs.
Disease control (true)	The Incineration Unit of Cadavers and Environmentally Polluting Waste	<p>The unit is responsible for the sanitary disposal of dead animals and biological waste from various sources within the college, including scientific departments, research, and private centers. Using an environmentally friendly natural gas incinerator, In 2024, the unit achieved significant milestones in service, research, and environmental management. It processed 19,625 samples across various departments, including surgery, pathology, and food safety, and collaborated with external institutions such as the Ministry of Health and the Turkish Embassy. The unit established contracts with research institutes, veterinary hospitals, and clinics, while also partnering with the Faculty of Agriculture for the safe disposal of chemicals and animal waste. Additionally, it successfully handled the disposal of 10 tons of paper waste for the Turkish Embassy. The unit finalized an agreement for the operation and maintenance of an incinerator and engaged in discussions to obtain environmental approval for its dead body incineration and waste disposal activities. Furthermore, it collaborated with the National Institute of Nutrition and conducted comprehensive safety checks on the incinerator's performance, including environmental sample analysis.</p>
Disease control (true)	Caravans	<p>The caravans provide several services during their visits, including free examination and treatment of animals, a comprehensive survey of veterinary issues in the villages, and offering scientific and practical expertise to residents. They facilitate knowledge exchange between faculty members and veterinarians from the directorate, perform surgical operations in field conditions to encourage local veterinarians, and allow final-year students to observe and treat cases under faculty supervision. Additionally, they provide preventive treatments such as deworming and address external parasite infestations through spraying or injections.</p>
Disease control (true)	Expert participation	<p>Two experts from the Departments of Surgery and Internal Medicine, Faculty of Vet. Med., Cairo Univ. are Members of the Advisory Committee of Al-Zahraa Arabian Horse Station, Ministry of</p>

		Agriculture, Egypt.
Disease control (true)	Expert participation	An expert from the Department of Surgery, Faculty of Vet. Med., Cairo Univ. is the Surgery Consultant for the Security and Guard Dogs Department at the Police Academy/Interior Ministry, Egypt.
Disease control (true)	Book publishing	An expert from the Department of Surgery, Faculty of Vet. Med., Cairo Univ. published an international book by Noor Publishing entitled "Clinical and Educational Studies on some Equine Fractures" ISBN-13 978-3330967441.
Epidemiology, surveillance, risk assessment (true)	Occupational Safety, Health, and Disaster Management Unit	The Occupational Safety, Health, and Disaster Management Unit conducted a training on occupational safety and health, focusing on hazard management in the workplace, for staff and warehouse keepers. Additionally, the unit coordinated with a shelter for stray dogs at the western campus, successfully transferring all the stray dogs. The unit also collaborated with Al-Fahd Company to carry out comprehensive pest control procedures at the eastern campus, and with the Faculty of Agriculture team to perform rodent and reptile spraying at the same location.
Epidemiology, surveillance, risk assessment (true)	Molecular Epidemiological Studies of Salmonellosis in Egypt and the Development of a Mutant Vaccine Strain Using CRISPR Technology to Control Infections in Cattle and Buffalo	This project, funded by the Science and Technology Development Fund (STDF), aims to investigate the molecular epidemiology of salmonellosis in cattle and buffalo in Egypt. The project focuses on developing a mutant vaccine strain using CRISPR technology as an innovative tool to control infections and mitigate their impact on animal health and livestock production. The study includes the identification of genetic profiles of circulating Salmonella strains, analysis of their antimicrobial resistance, and evaluation of the effectiveness of the mutant strain as a vaccine candidate.
Epidemiology, surveillance, risk assessment (true)	Reducing Antimicrobial Resistance in Dairy Farms Using a Novel Machine Learning Algorithm for Treatment Optimization	This collaborative project aims to tackle the challenge of antimicrobial resistance in dairy farms by developing and implementing a new machine learning algorithm. The project focuses on optimizing treatment strategies to minimize the use of antibiotics while maintaining animal health and productivity. Through advanced data analysis and predictive modeling, the algorithm will assist in identifying effective and targeted interventions, contributing to sustainable

		livestock management and reducing the spread of antimicrobial resistance.
Epidemiology, surveillance, risk assessment (true)	Expert participation	An expert from the Department of Surgery, Faculty of Vet. Med., Cairo Univ. is a Member of the Egyptian Medical Center (Martyrdom Evidence Committee), Egypt.
Epidemiology, surveillance, risk assessment (true)	Expert participation	An expert from the Department of Virology, Faculty of Vet. Med., Cairo Univ. contributes to providing guidance and advice on vaccination programs for highly pathogenic transboundary animal diseases as a technical expert at EuFMD of the Food and Agriculture Organization of the United Nations.
Epidemiology, surveillance, risk assessment (true)	Expert participation	Experts from the Department of Pathology at the Faculty of Veterinary Medicine, Cairo University, actively engages in various collaborative endeavours. The department cooperates with the Armed Forces Hospital clinic to conduct histopathological examinations of tissue biopsies and provide accurate disease diagnoses. Furthermore, the department plays a crucial role in supporting Giza Zoo by performing necropsies on deceased animals, contributing to a better understanding of animal health within the zoological environment. In addition, upon request from the college administration, the department actively contributes to solving equine health problems encountered in government-owned farms.
Training, capacity building (true)	Introducing the Green Office and discussing daily practices that contribute to reducing climate change	The seminar discussed the tasks of the Green Office and the reasons for its establishment, the impact of climate change on life on Earth, the Carbon footprint, and positive practices of individuals that may contribute to reducing the effects of climate change. The symposium ended with the following recommendations: The need to support sustainability policy and provide paper advertisements to raise awareness about practices aimed at reducing fuel consumption and saving water.
Training, capacity building (true)	Major Viral Diseases Affecting the Poultry Industry and Necropsy Session	A workshop sponsored by Boehringer Ingelheim, Saudi Arabia, focusing on major viral diseases affecting the poultry industry, including a necropsy session.

Training, capacity building (true)	Comparative Diagnosis of Respiratory Infections in Broiler Flocks	A workshop focused on the comparative diagnosis of respiratory infections in broiler flocks.
Training, capacity building (true)	Intellectual Property and Patents for Faculty Members	A seminar on intellectual property rights and patenting for faculty members.
Training, capacity building (true)	Facilitated Loans for Veterinary Projects	Workshop on Introduction to facilitated loans available through the Veterinary Support Program for establishing veterinary-related projects.
Training, capacity building (true)	Horse Hoof Health Course	A course on horse hoof health, aimed at enhancing skills in animal husbandry.
Training, capacity building (true)	Sonography and Echocardiography in Pet Animals	A course focused on the use of sonography and echocardiography techniques in diagnosing pet animal conditions, in collaboration with the Internal Medicine Department.
Training, capacity building (true)	Molecular Diagnosis of Poultry Diseases	Training on the molecular techniques used for diagnosing diseases in poultry.
Training, capacity building (true)	Modern Sonography in Horses	Courses on Advanced sonography techniques for diagnosing health conditions in horses.
Training, capacity building (true)	Canine Surgery Training	A training course on surgical techniques in dogs.
Training, capacity building (true)	Sustainability Requirements in Livestock, Poultry, and Fisheries Production in the Middle East	Workshop focusing on sustainable practices in livestock, poultry, and fisheries, specifically in the Middle East.
		Seminar discussing the ethical use of laboratory

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Training, capacity building (true)	Use of Laboratory Animals in Scientific Research	animals in scientific research and the impact of climate change on lab animals.
Training, capacity building (true)	Zoonotic Diseases Seminar (Rabies, Brucellosis, Tuberculosis)	A series of seminars addressing zoonotic diseases such as rabies, brucellosis, and tuberculosis.
Training, capacity building (true)	The Impact of Climate Change on Human Mental Health	Seminar discussing the effects of climate change on human mental health.
Training, capacity building (true)	Recycling Plastics: Pros and Cons	Workshop on Discussion on the recycling of plastic materials, examining its benefits and challenges.
Training, capacity building (true)	Biosafety Measures in Laboratories and Epidemics	Seminar on biosafety protocols in laboratories, focusing on handling epidemics.
Training, capacity building (true)	Environmental Dimensions of Sustainable Development Goals and Ecosystem Restoration	Seminar on the environmental aspects of sustainable development goals, ecosystem restoration, and their impact on the sustainability of Egypt's fisheries.
Training, capacity building (true)	Recycling Workshop	Practical workshop on the recycling process and its environmental benefits.
Training, capacity building (true)	Carbon Neutrality: Net Zero... A post-Carbon Economy	A workshop focusing on carbon neutrality, achieving net-zero emissions, and the economic transition to a post-carbon world.
Training, capacity building (true)	Project Management – DAAD Module	Seventeen participants were trained in this module about a basic overview of project management and the role of a project manager throughout the processes of managing projects. The module provides the basics and core methodology needed to manage projects or participate in project teams.
		Project Based Learning is a teaching method in

Training, capacity building (true)	Learning Through Projects – DAAD Module	which students gain knowledge and skills by working for an extended period on a project about an authentic, engaging question, problem, or challenge. It combines key knowledge with essential skills like problem-solving, communication collaboration, and self-management. A total of 18 participants were trained.
Training, capacity building (true)	Fundraising Skills and Best Practices – DAAD Module	In this training module, 23 attendees learned how to identify and mobilize a mix of funding resources to fund their research activities, needs, and demands.
Training, capacity building (true)	Self-Marketing – DAAD Module	This module defines self-marketing and explains why it is important in the career. It explains the different components of successful self-marketing (resume – motivation letter – self-introduction – interview – networking). Participants will learn how to utilize their strength points and, thus, improve their self-marketing skills. Thirteen participants were trained in this module.
Training, capacity building (true)	Proposal Writing for Master and PhD Candidate	In this training module, 22 attendees learned the key points of Proposal Writing for Master And PhD Candidate.
Training, capacity building (true)	Artificial intelligence in Higher education	In this training module, 22 attendees learned how to use Artificial intelligence in Higher education
Training, capacity building (true)	Day One Competences	The workshop (33 participants) provided information on the definition and items of day-one competencies for veterinary graduates.
Training, capacity building (true)	Emotional stability at work	The workshop (24 participants) provided training on personal soft skills in the work environment.
Training, capacity building (true)	Managing the work team	The workshop (18 participants) provided training on professional skills in the work environment.

Training, capacity building (true)	Styles of assessments	The workshop (16 participants) provided training on how to put exam questions.
Training, capacity building (true)	The Measurement and Evaluation Unit conducted a course titled "Interactive Teaching and Communication Skills"	The course titled "Interactive Teaching and Communication Skills". The attendance consisted of 22 trainees from the faculty members and assistant staff.
Training, capacity building (true)	Student Skills Development Unit	It helps students with the obtained profits, simple tools, and a small number of workers. As production continues and goals are achieved successfully, the operations of the unit have expanded, along with increased collaboration between the unit and the Social Solidarity Fund within the college.
Training, capacity building (true)	Alternative Approaches to Research Idea Generation and Discovery	A seminar or workshop exploring innovative methodologies and strategies for generating and discovering research ideas across various disciplines. The session will feature insights from Dr. Frederick Tibbitt, Professor of Pathology at Tuxer University, USA, and will focus on practical tools and techniques to inspire and refine research topics. Scheduled for February 2024, this event aims to foster creativity and collaboration among researchers.
Training, capacity building (true)	Scientific seminar and delivering a lecture titled "Feed Enzymes and Their Impact"	Attending the scientific seminar and supplying a lecture titled "Feed Enzymes and their Impact," which be held in Dubai.
Training, capacity building (true)	Scientific lecture on the role of clinical nutrition in preventing parasitic diseases (coccidiosis in poultry).	Attending the scientific seminar and supplying a lecture titled "coccidiosis in poultry," which be held in Kuwait.
Training, capacity building (true)	Scientific scholarships for faculty members	A total of 26 members of the faculty have travelled to various universities and research institutions in several foreign countries to gain scientific degrees and improve their research skills.
Training, capacity building (true)	Staff Secondments	A total of 43 faculty members are seconded to various entities inside and outside Egypt to work as experts in teaching, industrial development,

		and scientific research.
Training, capacity building (true)	Staff Development	An expert from the Department of Anatomy, Faculty of Vet. Med., Cairo Univ. holds the position of Deputy Director of the Center for Faculty and Leadership Development., Egypt.
Training, capacity building (true)	Training Expert participation	An expert from the Department of Virology, Faculty of Vet. Med., Cairo Univ. contributes to developing and teaching courses in cooperation with the RNE VLC of the Food and Agriculture Organization of the United Nations.
Zoonoses (true)	The Fifth-Year Student Activities	The activities covered a range of topics concerning the effect of climatic changes on the epidemiology of zoonotic diseases.
Zoonoses (true)	Member of the Supreme Committee for Zoonotic Diseases of the General Authority for Veterinary Services.	The Supreme Committee for Zoonotic Diseases within the General Authority for Veterinary Services is tasked with surveillance and monitoring of zoonotic diseases, conducting research, developing policies, and coordinating efforts with various organizations. It also provides education and training, implements control programs, responds to outbreaks, and ensures compliance with relevant regulations. These activities aim to manage and mitigate the risks posed by diseases that can be transmitted between animals and humans, safeguarding public and animal health.
Zoonoses (true)	One Health partnership project, antimicrobial resistance identification	Collaboration between the Faculty of Veterinary Medicine, Cairo University, and MSD within the One Health project by collecting samples from all farms and making the analysis and reporting the results of antimicrobial resistance across all Egypt governorates starting with the poultry sector then the ruminant sector and finally companion animal sector and share the research findings through the faculty channels with all interested parties.
Zoonoses (true)	Book publishing	An expert from the Department of Zoonoses, Faculty of Vet. Med., Cairo Univ. published Book of Zoonotic Potential of Cryptococcus spp. in Donkeys: An Urgent Public Health Issue in Egypt, Advanced Research in Biological Science. https://doi.org/10.9734/bpi/arbs/v4/10976F

Wildlife (true)	Participation in the Giza Zoo's Examination and Development Committee	Participation in the Giza Zoo's Examination and Development Committee involves collaborating to assess and improve various aspects of the zoo, including animal care. Members contribute to enhancing animal welfare, conservation practices, educational programs, and public engagement initiatives. They review and propose improvements to habitats, enrichment programs, veterinary care, safety protocols, breeding programs, and outreach efforts to promote wildlife conservation and environmental sustainability.
Wildlife (true)	Wild animal taxonomy	Elective course for second-level students.
Wildlife (true)	Anesthesia of wild animals	Elective course for Fourth-level students.
Wildlife (true)	Anesthesia of pet birds, rodents, and reptiles	Elective course for Fourth-level students.
Wildlife (true)	Medicine and surgery of wild animals	Elective course for Fifth-level students.
Wildlife (true)	Medicine and surgery of pet birds, rodents, and reptiles	Elective course for Fourth-level students.
Wildlife (true)	Clinical studies on Blood and Rumen Constituents in Aoudad (<i>Ammotragus lervia</i>) in Giza Zoo	Master thesis on Clinical studies on Blood and Rumen Constituents in Aoudad (<i>Ammotragus lervia</i>) in Giza Zoo.
Wildlife (true)	Expert participation	An expert from the Department of Veterinary Hygiene, Faculty of Vet. Med., Cairo Univ. is the General Rapporteur of the Arab Union for the Protection of Wildlife and Marine Life -

		Universities Committee, Egypt.
Avian diseases (true)	The Poultry Diseases Clinic services.	It provides diagnosis and treatment services for birds and rabbits, awareness of breeders and owners with the vaccination schedule and protocols, and consultations with bird farms. About 240 cases were received in 2024.
Avian diseases (true)	Implementation of portable sequencing technology for rapid identification of respiratory viruses in poultry.	A twinning project with Alexander Foreign von Humboldt Foundation - Germany.
Avian diseases (true)	Expert participation	An expert from the Department of Poultry Diseases, Faculty of Vet. Med., Cairo Univ. is a Member of the Higher Advisory Committee for Poultry Diseases at the Ministry of Agriculture, Egypt.
Avian diseases (true)	Book publishing	An expert from the Department of Poultry Diseases, Faculty of Vet. Med., Cairo Univ. published two books: -Poultry and Rabbit Diseases -Manual of Poultry and Rabbit Diseases
Aquatic animal diseases (true)	Participation by expert and scientific research in the environmental restoration project for Lake Qarun in Fayoum	The Faculty of Veterinary Medicine at Cairo University conducted a research project to test and monitor the water quality and fish infestation rates in Lake Qarun, then presented an environmental remediation plan to combat the parasitic invasion and constructed a restoration protocol for fish breeding that maintains the environmental balance of Lake Qarun regarding the water quality of the water body and restoring fish population and environmental activities.
Aquatic animal diseases (true)	The Contribution of Green Nanoparticles in the Diagnosis, Treatment, and Prevention of Various Parasitic Fish Diseases Posing Risks to Human Health	This STDF-funded project investigates the potential of green nanoparticles as innovative tools for addressing parasitic diseases in fish. The study aims to develop sustainable diagnostic methods, therapeutic strategies, and preventive measures to mitigate the impact of these diseases on both aquaculture and public health. Through interdisciplinary approaches, the project seeks to enhance food safety and reduce health risks associated with fish-borne parasites.
Aquatic animal diseases (true)		The project aims to establish a state-of-the-art fish farm within the premises of the Faculty of Veterinary Medicine, Cairo University. This fish farm will serve as an educational, research, and

	Fish Farm	practical facility to support the academic and scientific needs of the students and faculty members.
Animal welfare (true)	The Institutional Animal Care & Use Committee (IACUC).	It is designed to ensure that the highest animal welfare standards are maintained along with the conduct of accurate and valid scientific research, this is achieved through the careful review of each project proposed to include the use of animals at the Faculty of Veterinary Medicine and Cairo University.
Animal welfare (true)	The use of laboratory animals in scientific research.	The workshop discussed the scientific steps followed to carry out pre-clinical drug trials, the most important animals used in scientific research, how to choose the appropriate animal for the experiment, how to use laboratory animals in scientific research, and the members of the Animal Use Ethics Committee. The workshop recommended the importance of the Animal Ethics Committee following up on scientific experiments and ensuring the implementation of the committee's recommendations.
Animal welfare (true)	The effect of climate change on experimental animals	The workshop discussed the designing of animal houses used in scientific experiments, the importance of considering climate changes when analyzing the results of scientific experiments, and the impact of climate changes on animal physiology and health. The workshop recommended the necessity of creating a house for animals that conforms to international standards and trying to provide nude mice for scientific experiments.
Animal welfare (true)	Animal use in the Scientific area	Elective course for Fourth-level students.
Animal welfare (true)	Elective course for Fourth-level students	The hotel housing unit provides housing for small domestic animals that can be used by researchers to house cases related to their scientific theses and research.
Animal welfare (true)	Expert participation	Three experts from the Departments of Poultry Diseases, Food Hygiene, and Surgery, Faculty of Vet. Med., Cairo Univ. are Members of Cairo University Committee on Ethics of Animal Care

		and Use in Scientific Research "Veterinary and Agricultural Sciences Sector" CU IACUC, Egypt.
Animal welfare (true)	Expert participation	An expert from the Department of Pathology, Faculty of Vet. Med., Cairo Univ. is a Member of the Scientific Research Ethics Committees in Faculties of Pharmacy in Cairo university, Future University, and Heliopolis University, as well as the Faculty of Dentistry, MSA University, Egypt.
Animal welfare (true)	Expert participation	An expert from the Department of Food Hygiene, Faculty of Vet. Med., Cairo Univ. is a Member of the Agricultural Research Center Committee for the Use of Experimental Animals in Education and Scientific Research, Egypt.
Animal welfare (true)	Expert participation	An expert from the Department of Veterinary Hygiene, Faculty of Vet. Med., Cairo Univ. is an Advisor in the U-Research for Laboratory Animals, EG-LAS, Egypt.
Diagnosis, biotechnology and laboratory (true)	Biotechnology Research and Services Centre	<p>The center provides scientific and applied services in modern biotechnology for diagnosing animal and poultry diseases, evaluating biological products and vaccines, and conducting embryo transfer. It collaborates on local and international research projects and serves as a data hub for studies in these fields.</p> <p>Achievements in 2024: 1. Renovated infrastructure, including electrical, plumbing, carpentry, and furnishing upgrades, with the center reopened by the University's Vice President for Community Service and Environmental Development. 2. Activated a DNA extraction kits production unit in collaboration with faculty experts. 3. Initiated the production and marketing of bacteriological media across universities and research institutions. 4. Repaired and operationalized PCR and electrophoresis equipment, making them available for researchers under the center's supervision for a fee. 5. Conducted three specialized training courses.</p>
Diagnosis, biotechnology and	Centre for Veterinary Clinical	The center enhances its service, research, and educational role by utilizing advanced technologies for sample analysis, providing applied veterinary studies, and offering training, workshops, and consultations to support livestock stakeholders in Egypt. 2024 Highlights: •

laboratory (true)	Analysis and Applied Studies	Conducted 1,019 laboratory analyses across various fields, including blood tests, virology, feed and water analysis, microbiology, and pathology. • Delivered advanced training courses for professionals in animal, poultry, and fish production.
Diagnosis, biotechnology and laboratory (true)	Digital Pathology Lab	The lab serves as an educational hub, offering comprehensive training and resources to medical students, residents, and pathologists via innovative digital platforms. Its goal is to enhance learners' comprehension of pathological lesions and diagnostic skills through interactive modules, virtual case studies, and collaborative forums. Utilizing digital pathology technologies and artificial intelligence algorithms, the lab is committed to providing precise and timely pathological diagnoses, streamlining the diagnostic process, and ultimately benefiting patients by ensuring faster and more accurate treatment strategies. https://662b895f3f285.site123.me/
Diagnosis, biotechnology and laboratory (true)	Clinical pathology lab	To be a leading provider of high-quality, comprehensive molecular diagnosis, empowering veterinarians and food specialists with the information they need to deliver exceptional care to their animals and humans. Vision: A world where comprehensive molecular diagnostics are the standard in veterinary and food safety, enabling veterinarians and food specialists to consistently deliver exceptional care and ensure optimal animal and human health.
Diagnosis, biotechnology and laboratory (true)	Biosafety measures in laboratories and epidemics	The workshop discussed biosafety and biosecurity practices, managing biological risks and laboratory safety and security by identifying hazards, threats, and risks, and how to monitor risk mitigation.
		Project titled; Suitcase laboratory for rapid and sensitive detection of SARS-CoV-2 in point-of-care settings. Funding Agency: STDF (Special Targeted Call Grants - Second COVID-19 Pandemic Emergency Call) The main deliverable of the project is the development and optimization of a portable system for on-site screening of SARS-CoV-2 in clinical samples. This system depends on RT-RPA assay, which allows molecular diagnosis of SARS-CoV-2 in a very

Diagnosis, biotechnology and laboratory (true)	Suitcase laboratory for rapid and sensitive detection of SARS-CoV-2 in point-of-care setting	short time (15-20 minutes). The assay was developed to fit with sequences of the circulating virus strains in Egypt. Sample collection and nucleic acid extraction were optimized to be performed in the same reaction tube. A mobile suitcase laboratory containing all the reagents and equipment required for the detection of SARS-CoV-2 was assembled and composed of two units: a glovebox and a suitcase. The use of such mobile units in point-of-care settings will increase the diagnostic capabilities of the national teams working in hospitals and healthcare centres and improve the outcomes of surveillance and early warning programs.
Diagnosis, biotechnology and laboratory (true)	Expert participation	An expert from the Department of Virology, Faculty of Vet. Med., Cairo Univ. provides scientific consultations and follow-up on implementing high-biosecurity diagnostic laboratories (Levels 2, 3, and 3 Enhanced).
Diagnosis, biotechnology and laboratory (true)	Expert participation	An expert from the Department of Veterinary Hygiene, Faculty of Vet. Med., Cairo Univ. the Consultant and Director of Quality Control and Veterinary Diagnostic Laboratory at SPF, Agricultural Research Center, Ministry of Agriculture, Egypt.
Veterinary medicinal products (true)	Experiment hold in Animal and Poultry Research Centre	The scientific experiment was conducted for the benefit of the Multi Medica company for medical products on some registered pharmaceutical additives in Egypt.
Veterinary medicinal products (true)	Effect of horsetail (Equisetum Arvense) leaves extract on cystitis and struvite calculi involved in feline lower urinary tract disease	Joint Research: Exploring the Therapeutic Potential of Horsetail (Equisetum Arvense) Leaf Extract in Managing Cystitis and Struvite Calculi Associated with Feline Lower Urinary Tract Disease, Conducted in Collaboration between Pharmaceutical Company "Medicine Company for Pet Health " and the Faculty of Veterinary Medicine.
Veterinary medicinal products (true)	Enhancing healing of ischemic intestinal anastomosis (An experimental study in dogs)	Project entitled, Enhancing healing of ischemic intestinal anastomosis (An experimental study in dogs).
		An expert from the Department of Pharmacology, Faculty of Vet. Med., Cairo Univ. is a member of the Medication Research Council -

Veterinary medicinal products (true)	Expert participation	Academy of Scientific Research - Ministry of Higher Education, and a member of the Technical Office of the Academy of Scientific Research (Health and Medications) Ministry of Higher Education, Egypt.
Veterinary medicinal products (true)	Expert participation	An expert from the Department of Pharmacology, Faculty of Vet. Med., Cairo Univ. is a Member of the Veterinary Pesticides Registration Committee at the General Authority for Veterinary Services - Ministry of Agriculture, Egypt.
Veterinary medicinal products (true)	Expert participation	An expert from the Department of Internal Medicine, Faculty of Vet. Med., Cairo Univ. is a Consultant at the Egyptian Drug Authority, Egypt.
Veterinary medicinal products (true)	Expert participation	An expert from the Department of Surgery, Faculty of Vet. Med., Cairo Univ. is a Member of the Veterinary Biological Preparations Evaluation Committee of the General Authority for Veterinary Services, Egypt.
Veterinary medicinal products (true)	Book publishing	An expert from the Department of Pathology, Faculty of Vet. Med., Cairo Univ. shared with a chapter "Classification of Phytochemicals in Plants with Herbal Value" in the book "Herbal Medicine Phytochemistry".
Vaccines (true)	Preparation, Characterization and Evaluation of Different Nanoparticle-Encapsulated DNA Vaccines against Avian Orthoavulavirus 1 in chicken	Project titled; Preparation, Characterization, and Evaluation of Different Nanoparticle-Encapsulated DNA Vaccines against Avian Orthoavulavirus 1 in Chicken. Funding Agency: STDF (Post Graduate Support Grant (PGSG) The Expected Outcomes and deliverables are: • Design of effective mucosal DNA vaccine conferring sufficient protection in vaccinated chickens against Avian orthoavulavirus-1. • Gaining experience on dealing with nanoparticles as a delivery vehicle. • Publication in highly ranked international journal. • Enhancement of efficacy of DNA vaccines. • Establishment of networks between research and industry in the fields of vaccinology. • Reducing the impact of live vaccines on viral evolution.
		Providing consultations related to the development of vaccine production lines at the industrial level, managing technical operations in

<p>Vaccines (true)</p>	<p>Providing consultations related to the development of vaccine production</p>	<p>biological material factories, and developing inactivated vaccines against economically important avian viruses for Egyptian private sector companies. • Contributing to writing and responding to the technical evaluation of the university project to establish central virus laboratories and an experimental vaccine production unit in the Arab Republic of Egypt, in collaboration with the Chemical Warfare Department of the Armed Forces and other sovereign entities. • Providing scientific consultations and monitoring the implementation of high biosafety diagnostic laboratories (Level 2, Level 3, and enhanced Level 3) for certain military entities. • Consultant for the development and production of vaccines at Eva Pharma's Animal Health Division.</p>
<p>Vaccines (true)</p>	<p>Implementation Preparation and experimental evaluation of an rDNA-based equine H3N8 influenza virus vaccine</p>	<p>Project entitled; Implementation Preparation and Experimental Evaluation of an rDNA-based equine H3N8 influenza virus vaccine Expected Outcomes and deliverables: -A novel EIV vaccine candidate will be unveiled. -One article will be published internationally. -One patent for the developed vaccine will be filled. The vaccine once verified efficacious, can be used in equids to attack the relevant problems in the field of H3N8 EIV control. It has a great potential of being produced and marketed at least in the Egyptian market. It will be produced (preferably by contract). Likewise, this applies to the possible alternative of licensing intellectual property to a third-party manufacturer.</p>
<p>Vaccines (true)</p>	<p>Expert participation</p>	<p>An expert from the Department of Internal Medicine, Faculty of Vet. Med., Cairo Univ. is an Equine medicine consultant at Egyptian company for production of vaccines (VACSERA), Egypt.</p>
<p>Vaccines (true)</p>	<p>Expert participation</p>	<p>An expert from the Department of Virology, Faculty of Vet. Med., Cairo Univ. provides consultations on developing vaccine production lines at the industrial level, managing technical operations in biological materials factories, and developing inactivated vaccines against economically important avian viruses, for Egyptian private sector companies.</p>
		<p>The center has focused on addressing challenges</p>

<p>Food security (true)</p>	<p>Animal and Poultry Research Centre.</p>	<p>in animal and poultry nutrition and care in Egypt, offering tailored solutions, training specialists, and collaborating with global research institutions. Key Contributions: 1. Research Support: Facilities provided for doctoral and master's research in animal health, nutrition, and clinical nutrition. 2. Experimental Studies: Allocated experimental rooms and resources for studies on broiler fattening and chick nutrition. 3. Capacity Building: Contributed to developing expertise and advancing practical applications in animal and poultry care.</p>
<p>Food security (true)</p>	<p>Sustainability requirements in the production of farm animals, poultry, and fish.</p>	<p>The seminar discussed the seventeen sustainability goals of the United Nations and how to apply them in animal husbandry, poultry, and fish farm systems, the importance of applying recycling systems within farm systems to preserve the environment, and how to reduce carbon emissions on the farm to limit climate change.</p>
<p>Feed safety (true)</p>	<p>Regional Centre for Food Safety and Quality.</p>	<p>The Regional Centre for Food Safety and Quality "Robert von Ostertag Laboratories" is a special unit that is the result of continuous cooperation between the college and the Federal Institute of Health in Federal Germany. The idea of this cooperation was established between the Arab Republic of Egypt and the Federal Germany. The centre, using the latest scientific technologies, examines and analyzes foods of animal origin from different fresh and frozen meats and their manufacturers, as well as milk and its products, oils, fats, and eggs, as a physical, chemical, and microbiological examination to determine their suitability for human consumption and their conformity to standard specifications.</p>
<p>Feed safety (true)</p>	<p>A cooperation protocol with the Chinese company "New Hope Broiler Starter Feed"</p>	<p>A protocol has been established with the Chinese company "New Hope Broiler Starter Feed", which operates in Egypt in the field of animal feed and poultry. The protocol aims to employ 40 graduates annually in the field of animal feed and poultry.</p>
<p>Feed safety (true)</p>	<p>Challenges Facing the Poultry Feed Industry.</p>	<p>Workshop held by the Centre for Veterinary Clinical Analysis and Applied Studies.</p>

Feed safety (true)	The educational workshop on food and nutrition.	The educational workshop on food and nutrition in collaboration with the Directorate of Veterinary in Cairo.
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TOR 3: HARMONISATION OF STANDARDS

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main focus area for which you were designated

Proposal title	Scope/Content	Applicable Area
Draft laws regarding the handling of aggressive dogs and animals dangerous to human health	<p>Participating in the advisory committee for the development of the strategy to eradicate rabies in Egypt by 2030 is a highly significant responsibility. This includes drafting legislation on the management of aggressive dogs and animals that pose a risk to human health, which will be handled by the General Authority for Veterinary Services. This initiative is a critical component of the One Health approach, which fosters the integration of human, animal, and environmental health to promote sustainable solutions. The collaborative efforts involve key stakeholders, including representatives from WHO, FAO, WOA, as well as experts from civil society, research institutions, veterinary directorates, and the General Authority for Veterinary Services.</p>	Wildlife Health and Biodiversity
Preparation of the file for officially declaring Egypt as recognized as free from African horse sickness (AHS) by the World Organisation for Animal Health (WOAH)	<p>Participating in a committee at the General Authority for Veterinary Services to provide information to support the application for official recognition of status as a country free from infection with the African horse sickness (AHS) virus following Chapter 12.1. of the Terrestrial Code. The dossier provided to WOA, addressed concisely all the topics required to describe the actual situation in Egypt and the procedures currently applied, explaining how these comply with the Terrestrial Code.</p>	Health Management
Participation in the WOA Expert Committee on Sheep and Goat Pox	<p>participate in the international expert committee selected to review and update the reference (Terrestrial Code and Terrestrial Manual) for sheep and goat pox patients.</p>	Training and Education

3. In exercising your activities, have you identified any regulatory research needs* relevant for WOA?H?

Yes

Research need 1

Please type the Research need: Participation in the WOA?H Expert Committee on Sheep and Goat Pox

Relevance for WOA?H Disease Control,

Relevance for the Code or Manual Code,

Field Epidemiology and Surveillance, Diagnostics,

Animal Category Terrestrial,

Disease:

Sheep pox and goat pox

Kind of disease (Zoonosis, Transboundary diseases) Transboundary diseases,

If any, please specify relevance for Codes or Manual, chapter and title

(e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture)

Answer:

Notes:

Answer:

4. Did your Collaborating Centre maintain a network with other WOA?H Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

Yes

Name of WOA?H CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Fort Valley State University (FVSU)	Fort Valley	América	The twinning project: This project aims to establish an assisted reproductive technologies (ARTs) research and teaching facility at Fort Valley State University (FVSU) in the USA. The goal is to provide underrepresented students with training in ARTs, such as in vitro embryo production (IVEP) and artificial insemination (AI). This will equip them with the skills necessary to pursue careers in fields like

			embryology, andrology, and animal reproduction. The project also aims to utilize these technologies to enhance the reproductive efficiency and productivity of small ruminants.
University of California - Davis	California - Davis	América	US Cooperation Grant: Collaborative Research/ International Cooperation Grants. Project Title: Reducing Antimicrobial Drug Resistance Using a Novel Machine Learning Algorithm for Selective Dry-Cow Treatment in Dairy Cows.
Faculty of Veterinary Medicine, University of Leipzig	Leipzig	Europa	Project entitled, Implementation of Portable Sequencing Technology for Rapid Identification of Respiratory Viruses in Poultry. This project, funded by the Alexander von Humboldt Foundation, aimed to enhance the diagnostic capabilities of Egyptian laboratories by introducing Oxford Nanopore Technology (ONT) for rapid and sensitive identification of poultry respiratory viruses. This project has significantly advanced the ability of Egyptian laboratories to rapidly and accurately diagnose poultry respiratory diseases. This will enable early detection and control of outbreaks, leading to improved poultry health and economic benefits for the poultry industry.
			The collaboration was in areas of mutual interest through the following activities: 1.

<p>College of Veterinary Medicine – Seoul University – South Korea (Memorandum of Understanding)</p>	<p>College of Veterinary Medicine, Seoul National University, South Korea</p>	<p>Asia y el Pacífico</p>	<p>Facilitating student and faculty participation in the educational programs offered by either party. 2. Conducting joint research projects. 3. Organizing seminars, workshops, conferences, and symposia collaboratively. 4. Exchanging academic information and materials. Agreement Duration: The memorandum is valid for four years from the date of the last signature (February 16, 2024).</p>
<p>College of Veterinary Medicine – Tuskegee University – United States of America (Memorandum of Understanding)</p>	<p>Tuskegee University, College of Veterinary Medicine, United States of America</p>	<p>América</p>	<p>The purpose of the agreement is to enhance international development and scientific and educational cooperation between the two institutions through the following activities: 1. Exchange of faculty and graduate students, including short- to medium-term teaching and research visits. 2. Jointly organized seminars, conferences, and workshops. 3. Collaborative scientific efforts through research projects, joint research, exchange of scientific and technical materials, and joint development of teaching programs, curricula, and other educational resources.</p>
<p>Harbin Institute for Veterinary Research – People's Republic of China (Cooperation Agreement, pending approval for veterinary research)</p>	<p>Harbin Veterinary Research Institute, Chinese Academy of Agricultural Sciences, China</p>	<p>Asia y el Pacífico</p>	<p>Collaboration through the following activities: 1. Joint organization of seminars, workshops, conferences, and symposia. 2. Participation in the development and implementation of joint academic programs. 3. Execution of collaborative research projects. Agreement Duration: The memorandum is valid for five years from the</p>

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			date of the last signature (November 5, 2024).
College of Veterinary Medicine University of Basra Republic of Iraq (Cooperation Agreement)	College of Veterinary Medicine, University of Basra, Iraq	Oriente Medio	This agreement aims to foster collaboration between the two institutions across various academic and research domains. Key areas of cooperation include the exchange of faculty, staff, and students for research and teaching purposes, joint research projects, and co-supervision of graduate theses. The agreement also encourages participation in joint conferences and workshops, the exchange of educational and research materials, and efforts to secure funding for collaborative initiatives. These activities are designed to enhance scientific and cultural exchange and advance the educational and research objectives of both institutions.

TOR 4 AND 5: NETWORKING AND COLLABORATION

5. Did your Collaborating Centre maintain a network with other WOAHO Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

Yes

Name of WOAHO CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
			The College of Veterinary Medicine at Cairo University, recognizing its vital role in education, scientific research, and community service, strives to advance both academically and practically. Its goal is to produce highly

<p>Central Laboratory for Evaluation of Veterinary Biologics (CLEVB) collaborating center for Quality Control of Veterinary Vaccines in the Middle East.</p>	<p>Egypt</p>	<p>Africa</p>	<p>skilled veterinarians across various specialties, trained in the principles of knowledge and research methodologies while enhancing quality assurance and accreditation standards. To further this mission, the college aims to establish a partnership with the Central Laboratory for Evaluation of Veterinary Biologics (CLEVB) collaborating center. This collaboration seeks to align practical efforts and implement joint scientific initiatives, distinguished training programs, specialized international conferences, and co-supervision of scientific theses. Additionally, the college aims to strengthen its role as an accredited center for Day-One Competencies through further collaboration with other WHO-affiliated centers and reference laboratories.</p>
<p>Global Classroom Initiative: MIEH 407 & 607 One Health: Global Food Safety and Security</p>	<p>Online</p>	<p>Americas Middle East</p>	<p>This course is a collaboration between the University of Maryland and Cairo University in Egypt to improve global food safety and security. This global (undergraduate and graduate) class will educate participants on one health foundation and how it can improve global food safety and security. Students will apply One Health principles to food safety and security.</p>
			<p>The purpose is to support the objectives of Day-One Veterinary Competencies, particularly related to the capacity to combat animal</p>

<p>Food and Agriculture Organization (FAO) – United Nations (Letter of Intent)</p>	<p>Food and Agriculture Organization (FAO) of the United Nations</p>	<p>Middle East</p>	<p>diseases and zoonoses in the Near East region. This will be achieved through the provision of accredited training for undergraduate and graduate students at the Faculty of Veterinary Medicine, Cairo University, and other collaborating veterinary educational institutions in the region.</p>
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TOR 6: EXPERT CONSULTANTS

6. Did your Collaborating Centre place expert consultants at the disposal of WOA?H?

No

TOR 7: SCIENTIFIC AND TECHNICAL TRAINING

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

Yes

1-Activity: Nomination of Experts for Reviewing International Standards on Equine Encephalitis

Professors have been nominated to participate in the review of international standards related to equine encephalitis. This nomination is part of the collaboration between the General Organization for Veterinary Services and the College of Veterinary Medicine.

The General Authority for Veterinary Services had received an email from the Regional Commission of the World Organization for Animal Health (WOAH) in the Middle East regarding the ongoing work of the scientific committee specialized in studying the international standards contained in the organization's animal health code.

The email stated that the Scientific Committee agreed to include a review of the chapters related to equine encephalitis in its work program due to their epidemiological similarities:

1. Chapter 12.4 - Equine encephalomyelitis (Eastern and Western)

2. Chapter 12.11 - Venezuelan equine encephalomyelitis

3. Chapter 8.10 - Japanese encephalitis

2- Activity: Join the Peer Review Team for One Health Competency Package (CP11) ToR-2024

peer review of the Terms of Reference for the One Health Competency Package (CP11), part of the WOA?H Competency-Based Training Framework (CBTF). The CBTF comprises 16 competency packages designed to enhance the capacities of the workforce of Veterinary Services and Aquatic Animal Health Services in alignment with WOA?H standards.

3- Activity: Participate review and update the reference (Terrestrial Code and Terrestrial Manual) for sheep and goat pox patients, as per the invitation of the World Organisation for Animal Health.

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOA?H, to personnel from WOA?H Members?

No

TOR 8: SCIENTIFIC MEETINGS

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on

behalf of WOA?H?

Yes

National/International	Title of event	Co-organiser	Date	Location	No. Participants
Internationally	9th Conference of the Faculty of Veterinary Medicine – Cairo University (The conference focused on the theme: "One World, One Health: A New Era for Veterinary Medicine" and addressed various aspects of veterinary practice, including climate change, animal health, food safety, vaccine development, and sustainable practices. The event was supported financially and logistically by numerous international and local organizations, with experts from 10 countries participating in keynote speeches, interactive sessions, and discussions)	Cairo University, International and Local Organizations	2024-04-15	Green Sudder Resort, Ras Sidr, South Sinai, Egypt	137
Internationally	The Role of Veterinary Education for the Sustainable Use of Antimicrobials and Addressing Antimicrobial Resistance	, University of London (UK)	2024-04-18	Green Sudder Resort, Ras Sidr, South Sinai, Egypt	20
Internationally	Economic Impacts of Zoonotic and Emerging Animal Diseases in the Middle East and North Africa	University of Liverpool, United Kingdom- Faculty of Veterinary medicine- Cairo university	2024-04-16	Jewel of the Pyramids Hotel, Giza, Egypt	60
		-MSD- animal health - EVA-PHARMA -		Faculty of Veterinary	

Nationally	Employment Forum	EgyEuro-Animal Health -New Hope Company	2024-08-20	medicine- Cairo university	240
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TOR 9: DATA AND INFORMATION DISSEMINATION

10. Publication and dissemination of any information within the remit of the mandate given by WOAHA that may be useful to Members of WOAHA

a) Articles published in peer-reviewed journals:

602

Publication list 2024

1. Abd El Maksoud, E.A., Rady, M.H., Mahmoud, A.G.T., Hamza, D., Seadawy, M.G. & Essa, E.E., 2024. Potential therapeutic biomolecules of hymenopteran venom against SARS-CoV-2 from Egyptian patients. *Scientific Reports*, 14(1).
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4. Abd El-Ghany, W.A., 2024. Avian macrorhabdosis (*Macrorhabdus ornithogaster*) causing proventriculitis: Epidemiology, diagnosis, and control. *Veterinary Integrative Sciences*, 22(3), pp.921–931.
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11. Abd El-Naby, A.S., El Asely, A.M., Hussein, M.N., Khattaby, A.E.R.A., Sabry, E.A., Abdelsalam, M., et al., 2024. Effects of dietary fermented *Saccharomyces cerevisiae* extract (Hilyses) supplementation on growth, hematology, immunity, antioxidants, and intestinal health in Nile tilapia. *Scientific Reports*, 14(1).
12. Abdallah, A.A., Abdelnaby, E.A., Amin, S., El-Sherbiny, H.R., Emam, I.A., and Ibrahim, F.M., 2024. Cytological, hormonal, and ovarian hemodynamic alteration during the normal oestrus and split heat cycles in bitches. *Journal of Advanced Veterinary Research*, 14(2), pp. 296-300.
13. Abdallah, A.N., Shamaa, A.A., El-Tookhy, O.S., and Bahr, M.M., 2024. Comparison between stem cell therapy and stem cell derived exosomes on induced multiple sclerosis in dogs. *BMC Veterinary Research*, 20(1), pp. 90.
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21. Abdelfatah, S.H., Yassin, A.M., Khattab, M.S., Abdel-Razek, A.S. & Saad, A.H., 2024. *Spirulina platensis* as a growth booster for broiler; Insights into their nutritional, molecular, immunohistopathological, and microbiota modulating effects. *BMC Veterinary Research*, 20(1).
22. Abdelgalil, A.I., Yassin, A.M., Khattab, M.S., Abdelnaby, E.A., Marouf, S.A., Farghali, H.A. and Emam, I.A., 2024. Platelet-rich plasma attenuates the UPEC-induced cystitis via inhibiting MMP-2,9 activities and downregulation of NGF and VEGF in *Canis lupus familiaris* model. *Scientific Reports*, 14(1), art. no. 13612.
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b) International conferences:

40

Algeria:

-Providing technical consultations in the field of poultry nutrition

Brazil:

- A scientific seminar and participation in a global exhibition*
- Canada:
-International Conference on Obesity therapies & diabetes research (ICOTDR-24)
- China:
-A scientific seminar and participation in a global exhibition
- Cyprus:
-Guarding the Coop Global Perspectives on Poultry Health Challenges Seminar
- Egypt:
-9th International Scientific Conference of the Faculty of Veterinary Medicine, Cairo University
- France:
-Participation in the international expert committee to review and update the reference (Terrestrial Code and Terrestrial Manual) for sheep and goat pox patients
- Germany:
-Xpert' Global Parasite Scientific Conference
- Hungary:
-International Conference on Marine Science & Aquaculture -ICMSA-2
- Iraq:
-9th International Conference of the Faculty of Veterinary Medicine, University of Basra
- Italy:
-World Poultry Association Conference
-World Veterinary Poultry Association Conference
-17th International Conference on Clinical Veterinary Medicine, Animal Pathology and Epidemiology
- Jordan:
-Conference on the role of organic acids as growth stimulants in poultry nutrition
- Kuwait:
-A scientific lecture entitled 'Nutrition and health and safety of the digestive system in broiler chickens'
- Saudi Arabia:
-International Conference and Exhibition for Agriculture, Water, and Agricultural Industries
-Middle East Poultry Expo
-The 2nd International Camelid Scientific Conference
-The 2nd International Camel Conference at Qassim University
-A scientific conference and a lecture entitled (The danger of parasites on the economy of camel and sheep farms)
- Serbia:
-Round table discussion on Avian Viral respiratory diseases at Belgrade University
- Thailand:
-World Conference on Animal Science and Veterinary Medicine
- UAE:
-Scientific sessions on animal and poultry nutrition
-International Microbiology Conference
-VIV-MEA Annual Veterinary Conference and Exhibition
-Scientific conference on livestock and a lecture on the danger of parasites on the economy of camel and sheep farms
- USA:
-IPPE 2024
-Scientific conference of the AAAP Scientific Society
International Conference on Cardiovascular, diabetes & metabolic disorders research (ICCDMR-24)

c) National conferences:

Egypt: *2nd International Conference of the Egyptian Poultry Forum.*

d) Other (Provide website address or link to appropriate information):

<https://vet.cu.edu.eg/new-web/Home/>

11. What have you done in the past year to advance your area of focus, e.g. updated technology?

Significant advancements were achieved through updated technology and enhanced practices, aligning with the Centre for Day-One Veterinary Competencies' mission of improving veterinary training and health practices. Key areas of progress include:

-Zoonotic Disease Control: Workshops and student activities on advanced diagnostic methods and prevention strategies enhanced the detection and management of zoonotic diseases, benefiting both animals and humans.

-Internal Medicine and Infectious Diseases Clinic: The clinic handled a high volume of cases, utilizing a team of specialist veterinarians and cutting-edge diagnostic tools to deliver comprehensive care.

-Environmental Sustainability: Seminars on climate change's impact on health promoted sustainability practices, such as recycling and the adoption of digital pathology to reduce environmental harm.

-Biosecurity and Infection Control: The establishment of the Biosecurity and Infection Control Unit, alongside enhanced biosafety measures in laboratories, strengthened our response to infectious diseases and biological risks.

-Portable Sequencing Technology: The introduction of portable sequencing for rapid respiratory virus identification in poultry revolutionized diagnostic capabilities, ensuring faster and more accurate results.

-Vaccine Development: Efforts in developing nanoparticle-encapsulated DNA vaccines for avian diseases demonstrated our commitment to combating viral infections.

-Collaborative Knowledge Exchange: Partnerships with international and local entities facilitated the exchange of advanced scientific knowledge and the application of cutting-edge methods to improve animal and public health.

12. Additional comments regarding your report: