

# WOAH Collaborative Centre Reports Activities 2023

## Activities in 2023

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### Centre Information

<b>Title of WOA Collaborating Centre</b>	WOAH Collaborating Centre for Day-One Veterinary Competencies in the Middle East
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<b>Name Director of Institute (Responsible Official):</b>	Prof. Dr. Iman Bakr Mohammed Shaheed
<b>Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):</b>	Iman Shaheed (Dean - Faculty of veterinary medicine- Cairo University)
<b>Name of the writer:</b>	Prof. Dr. Dalia Hamza

### TOR1 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 WOA

Category	Title of activity	Scope
Disease control (true)	Detection and control of tuberculosis in animals and humans.	The workshop covered the identification of tuberculosis etiology, forms of the disease, modes of transmission, and methods for diagnosis, prevention, and control, with 37 participants.
Disease control (true)	World Rabies Day to achieve the "Together Against Rabies" strategy.	The symposium discussed rabies in animals, rabies in humans, the law on the ownership of dangerous animals and dogs, and rabies vaccines.
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 2719 cases) suffering from internal and infectious diseases. The clinic has a cadre of consultant veterinarians and specialists with various specialties including cardiology, nephrology, hepatology, and contagious

		diseases who can diagnose frequent cases at the clinic. The clinic offers certification for dogs traveling internationally.
Disease control (true)	Surgery Clinic services.	The clinic offers clinical cases of pets, wild and large animals, as well as birds and reptiles for student training and to explain the clinical curriculum for fourth- and fifth-year students in the Mainstream program, as well as postgraduate students. As part of the continuous education framework for graduates, the hospital provides veterinarians with the opportunity to stay updated on new methods of diagnosis, treatment, and surgery for animals. Additionally, the hospital offers a valuable chance for department researchers to conduct necessary scientific research for promotion to higher academic degrees, utilizing the hospital's facilities, including clinical cases, x-ray equipment, ultrasound equipment, anesthesia equipment, and operating rooms. In 2023, approximately 2,401 cases were received.
Disease control (true)	Services Provided by the Veterinary Clinic for Gynaecology, Obstetrics, and Artificial Insemination Clinic.	It provides diagnostic and treatment services for incoming cases (about 2,950 cases in 2023), which serve the community service sector and environmental affairs.
Disease control (true)	The Incineration Unit of Cadavers and Environmentally Polluting Waste.	It is responsible for the sanitary disposal of dead cadavers from all sources within and outside the college, including scientific departments, experimental research, and private centers. It aims to preserve the environment at the college level and in the surrounding area by safely disposing of animal carcasses and biological waste using an environmentally friendly incinerator that operates on natural gas. Approximately 40,602 kilograms of waste were incinerated in the facility.
Disease control (true)	Caravans.	Providing health care and access to veterinary services in villages across various governorates. Preparing a health and social education program for villagers to raise awareness of health and environmental issues. Offering free examinations and treatments for all medical cases presented. Conducting a comprehensive survey of veterinary field problems in the villages visited by the caravans. Administering preventive treatments for different animals by treating them for internal parasites and addressing cases of external parasites through spraying or injection.
Epidemiology, surveillance, risk assessment (true)	Occupational Health and Safety Unit	Establishing an effective system for managing crises and disasters and working to implement prepared plans and programs to secure the work environment, ensuring security and safety in the faculty's facilities. This aims to reduce risks and negative effects resulting from crises and disasters, promoting internal stability within the faculty community.
Epidemiology, surveillance, risk assessment (true)	Biosecurity and Infectious Control Unit.	The Biosecurity & Infection Control Unit (BICU) is tasked with developing, maintaining, and monitoring infection control activities at the Faculty of Veterinary Medicine, Cairo University Teaching Hospital. Its objective is to minimize the incidence and impact of sporadic infectious diseases and outbreaks among animals and humans.
		The seminar covered the tasks of the Green Office and the reasons for its establishment, as well as the impact of climate change on life on Earth, the concept of

Training, capacity building (true)	Introducing the Green Office and discussing daily practices that contribute to reducing climate change.	carbon footprint, and positive individual practices that can help mitigate the effects of climate change. The symposium concluded with recommendations including the necessity to support sustainability policies and provide paper advertisements to raise awareness about practices aimed at reducing fuel consumption and conserving water.
Training, capacity building (true)	Using digitalization in education of pathology to combat the impact of climate change.	The workshop delved into the significance of integrating technology into education, particularly in reducing the production of multiple copies of tissue slides used in education and minimizing the use of environmentally harmful chemicals by preserving slides in digital format. It recommended conducting a teaching course on animal handling for non-graduates of the College of Veterinary Medicine, encompassing various departments.
Training, capacity building (true)	The impact of climate change on human mental health.	The workshop addressed the impact of high temperatures on human mental health, including decreased income and increased prices due to the adverse effects of high temperatures on crops. These factors contribute to heightened pressure and tension for individuals. Additionally, the workshop discussed the psychological conditions that arise following exposure to shock from natural disasters such as floods, which are exacerbated by climate change.
Training, capacity building (true)	Recycling plastic materials and its benefits	The workshop covered various aspects related to the health effects of pollution caused by plastic, the environmental damage caused by plastic, steps involved in the plastic recycling process, health problems associated with exposure to plastic products during recycling, measures to protect against health effects resulting from plastic manufacturing or recycling, strategies to reduce plastic consumption in all its forms, methods to minimize the health effects of plastic, and procedures that the community should be aware of to actively participate in its success.
Training, capacity building (true)	Going Green and Sustainable Development Prospects.	The symposium covered Cairo University's current global and regional standing in sustainable development rankings, sustainable development goals, the resources and capabilities available at Cairo University that bolster sustainable development efforts, and Cairo University's aspirations for supporting sustainable development initiatives within the university.
Training, capacity building (true)	Project Management – DAAD Module.	Twenty-five 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.
Training, capacity building (true)	Learning Through Projects – DAAD Module.	Project Based Learning is a teaching method in 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 candidates.
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)	Employment Forum.	The forum provided lectures on working fields for veterinarians, self-branding, and the introduction of several Veterinary companies such as Zoetis, MSD-Animal Health, and Eva Pharma.
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)	Scientific scholarships for faculty members	A total of 17 members of the faculty have traveled to various universities and research institutions in several foreign countries to gain scientific degrees and improve their research skills.
Training, capacity building (true)		A total of 31 faculty members are seconded to various entities inside and outside Egypt to work as experts in

	Staff Secondments	teaching, industrial development, and scientific research.
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.
Zoonoses (true)	The Fifth-Year Student Conference	The conference covered a range of topics concerning zoonoses, including surveys conducted on diseases transmissible to humans. Students gathered opinions from individuals on these diseases, which served as a central discussion point. Key diseases discussed were Brucella, Rabies, Ringworm, Rotavirus, Coronavirus, Monkeypox, and Enterobacteriaceae. Under the guidance of Zoonoses staff, students created a variety of educational materials, including 35 videos, 5 posters, 7 brochures, 2 online magazines, 2 maquettes, and 2 pamphlets & flyers. These materials, focused on zoonotic diseases, were uploaded to the YouTube channel <a href="https://www.youtube.com/@LetsExploreZoonoses">"https://www.youtube.com/@LetsExploreZoonoses"</a> and the website " <a href="https://zoonoses.my.canva.site/">https://zoonoses.my.canva.site/</a> ", enhancing public awareness and education on the subject
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 the 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. -Share the research findings through the faculty channels with all interested parties.
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.
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 160 cases were received in 2023.
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)	A cooperation protocol with the Chinese company "New Hope Broiler Starter Feed".	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.
Avian diseases (true)	The Challenges Facing the Feed Industry Workshop.	The Challenges Facing the Feed Industry Workshop, March 2023, was held through the Center for Applied Analysis."
Avian diseases (true)	workshop entitled: The comparative diagnosis of respiratory diseases in broiler breeders.	The workshop took place from November 13th to 15th, 2023, with the attendance of 23 trainees.
Aquatic animal diseases (true)	Participation by expert and scientific research in the environmental restoration project for Lake Qarun in Fayum.	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.

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 taking into account 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 Scientific area.	Elective course for Fourth-level students.
Animal welfare (true)	The hotel housing unit.	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.
Diagnosis, biotechnology and laboratory (true)	Biotechnology Research and Services Centre.	The centre aims to enhance the diagnostic and research capabilities of the veterinary, human, pharmaceutical, and bioscience sectors to become one of the distinguished scientific centres at the local and regional levels by delivering outstanding performance and keeping pace with continuous scientific advancements in services, scientific research, community service, and environmental development. It is also committed to providing distinguished services in biotechnology applications and various genetic engineering techniques that benefit the scientific sectors, particularly those related to livestock. These technologies are applied in conducting research, theses, research projects, and clinical analyses to contribute to the development of the local and regional environment. The centre conducted three training courses with a total of 73 participants.
Diagnosis, biotechnology and laboratory (true)	Centre for Veterinary Clinical Analysis and Applied Studies.	The centre aims to deepen the service, research, and educational role of the centre by analyzing the samples received by the centre with the latest scientific technologies and providing the best applied veterinary studies through training courses, workshops, medical consultations, and economic feasibility studies for all those interested in livestock in Egypt, with a commitment to increase the scientific and practical capacity of the veterinarian to be able to

		serve the community and develop the environment in particular. The centre conducted three training courses with a total of 66 participants.
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. <a href="https://662b895f3f285.site123.me/">https://662b895f3f285.site123.me/</a> .
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.
Diagnosis, biotechnology and laboratory (true)	Suitcase laboratory for rapid and sensitive detection of SARS-CoV-2 in point-of-care setting.	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 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.
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.



<p>Veterinary medicinal products (true)</p>	<p>Enhancing healing of ischemic intestinal anastomosis (An experimental study in dogs).</p>	<p>Project entitled, Enhancing healing of ischemic intestinal anastomosis (An experimental study in dogs).</p>
<p>Vaccines (true)</p>	<p>Preparation, Characterization and Evaluation of Different Nanoparticle-Encapsulated DNA Vaccines against Avian Orthoavulavirus 1 in chicken.</p>	<p>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 journals. • 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.</p>
<p>Vaccines (true)</p>	<p>Providing consultations related to the development of vaccine production.</p>	<p>Providing consultations related to the development of vaccine production lines at the industrial level, managing technical operations in 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>Providing consultations related to the development of vaccine production lines at the industrial level, managing technical operations in 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>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>Food security (true)</p>	<p>Animal and Poultry Research Centre.</p>	<p>The centre aims to conduct studies on the size and dimensions of animal and poultry feeding and care problems in Egypt providing appropriate solutions to the nature of local conditions and contributing to the preparation and training of specialists in the field of animal and poultry care. It also cooperates with Scientific entities and similar research centres in the world to benefit from the advanced scientific information and methods and try to apply them in the</p>

		Arab Republic of Egypt. It has three dimensions: a) scientific research, b) production of animal protein, eggs, and milk, and c) training and guidance.
Food security (true)	Sustainability requirements in the production of farm animals, poultry, and fish.	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.
Feed safety (true)	Regional Centre for Food Safety and Quality.	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.
Feed safety (true)	Challenges Facing the Poultry Feed Industry.	Workshop held by the Centre for Veterinary Clinical Analysis and Applied Studies.
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.

### TOR3: 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.	Participating in an advisory committee at the General Authority for Veterinary Services to draft laws regarding the handling of aggressive dogs and animals dangerous to human health.	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).	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 in accordance with Chapter 12.1. of the Terrestrial Code. The dossier provided to WOAH 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.	health management

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

No

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

Yes

Name of WOAHC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Fort Valley State University (FVSU).	Fort Valley State	Americas	<p>Twinning project with Fort Valley State University (FVSU), USA titled " Building capacity in assisted reproductive technologies (ARTs) at Fort Valley State University (FVSU): Strategies to improve the efficiency of in vitro embryo production (IVEP) and artificial insemination (AI) in small ruminants". The proposed project seeks to establish an assisted reproductive technologies (ARTs) research and teaching facility at Fort Valley State University to provide opportunities for underrepresented students to be trained and acquire skills in these technologies. This will give them the capabilities to complete their undergraduate and graduate degrees in agricultural and biomedical sciences and ultimately pursue a career in embryology, andrology, animal reproduction, human fertility, or biotechnology. Another research goal of the project is to utilize ARTs, especially artificial insemination (AI) and in vitro embryo production (IVEP) to improve the reproductive potential and production in small ruminants.</p>
University of California - Davis.	California - Davis	Americas	<p>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.</p>
			<p>Project entitled, Implementation of Portable Sequencing Technology for Rapid Identification of Respiratory Viruses in Poultry. Funding Agency: Alexander von Humboldt foundation Outcomes and deliverables: The major target of the project was to enhance the diagnostic capabilities of the</p>

<p>Faculty of Veterinary Medicine, University of Leipzig.</p>	<p>Leipzig</p>	<p>Europe</p>	<p>Egyptian labs by introducing the Oxford Nanopore Technology (ONT) sequencing system. ONT will unravel endemic, emerging, and re-emerging pathogens rapidly and sensitively. This enables early and rapid tracking of pathogens and consequently efficient control and prevention of outbreaks. During an initial meeting at Leipzig University, both teams from Germany and Egypt agreed that the most common respiratory viruses associated with the respiratory disease complex (CRD) must be addressed as a top priority. These viruses are influenza A viruses (IAV, all subtypes with special attention to H5N1 and H9N2), Newcastle disease virus (NDV), Infectious bronchitis virus (IBV), and infectious laryngotracheitis virus (ILTV). The project team has tested the online database platform for ONT; EPI2Me, which delivered a poor specificity. They have created an offline viral genomes database using the GENEIOUS software, which deliver an easy interface and a better specificity.</p>
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## TOR4 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
<p>The Central Laboratory for Veterinary</p>			<p>The College of Veterinary Medicine - Cairo University, believing in its fundamental role in the educational process and its responsibilities in university education, scientific research development, and community service, aims to elevate scientifically and practically. It seeks to provide the country with distinguished veterinarians in various specialties, preparing individuals equipped with the principles of knowledge and research methods, and</p>

<p>Control of Medicinal Products - Agricultural Research Center, represented by Dr. Samir Abdel-Moez, in his capacity as the director of the Central Laboratory for Veterinary Control of Medicinal Products.</p>	<p>Egypt</p>	<p>Africa</p>	<p>enhancing the level of quality assurance and accreditation. Therefore, it seeks to establish a twinning relationship between it and the Central Laboratory for Veterinary Control of Medicinal Products. This twinning aims to unify practical efforts and implement joint scientific projects, distinguished training programs, specialized international scientific conferences, in addition to jointly supervising scientific theses. Furthermore, the college seeks to enhance its cooperation as an accredited center for day-one competencies with other collaboration centers affiliated with the World Health Organization and reference laboratories.</p>
<p>Global Classroom Initiative: MIEH 407 &amp; 607; One Health: Global Food Safety and Security.</p>	<p>Online course</p>	<p>Africa Americas MiddleEast</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>

## TOR6: EXPERT CONSULTANTS

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

No

## TOR7: 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.*

*Prof. Dr. Waleed Awad and Dr. Noha Bakry 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 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: *One Health" Training Guide, Egypt - 2022*

*A Tripartite Collaboration between the Food and Agriculture Organization of the United Nations, the World Organization for Animal Health, and the World Health Organization. They Work together to promote the "One Health" approach at the national, regional, and global levels. This work was accomplished in collaboration with the*

ministries responsible for animal, human, and environmental affairs in Egypt, as well as the technical staff in the following institutions:

Ministry of Agriculture and Land Reclamation in Egypt

Ministry of Health and Population in Egypt

Ministry of Environment in Egypt

Faculty of Veterinary Medicine - Cairo University in Egypt

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

No

## TOR8: 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?

Yes

NATIONAL/INTERNATIONAL	TITLE OF EVENT	CO-ORGANISER	DATE (MM/YY)	LOCATION	NO. PARTICIPANTS
National	Competition on the Impact of climate change with innovative solutions on: 1) Human/animal health interaction (one health) 2) Marine life alterations 3) Wildlife in Egypt and the Middle east 4) Food Quality and safety 5) New trends in antimicrobial therapy.	none	2023-01-01	Faculty of Veterinary medicine- Cairo university	125
National	The conference of Arab Equine Veterinary Association entitled (The Most Important Developments and Modern Techniques in Equine Medicine in Egypt).	Arab Equine Veterinary Association.	2023-03-18	Faculty of Veterinary medicine- Cairo university	100
National	World Rabies Day to achieve the "Together Against Rabies" strategy.	"The Charitable Society for Animal Care in Egypt".	2023-09-30	Faculty of Veterinary medicine- Cairo university	52
National	Seminar on Brucellosis.	-The Charitable Society for Animal Welfare in Egypt" - The Veterinary Medicine Directorate in Giza" -The Veterinary Medicine Directorate in Cairo".	2023-12-19	Faculty of Veterinary medicine- Cairo university	39
National	Employment Forum.	-zoetis -MSD- animal health -EVA-PHARMA -EgyEuro-Animal Health	2023-09-26	Faculty of Veterinary medicine- Cairo university	172

## TOR9: DATA AND INFORMATION DISSEMINATION

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

a) Articles published in peer-reviewed journals:

550

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  - Abdel-Alim, G.A., Aly, S.M., Khattab, M.S., Badawy, A.M., Naguib, M.G., Abdelhamid, T.M., Hussein, H.A. and Morsy, E.A., 2023. Adenovirus type D and type E infection in broiler chickens: the effect on CD4 and CD8 T cell response, cytokines expression and their immunopathology. *British Poultry Science*, 64(6), pp.688-696.
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b) International conferences:

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- King Faisal University Conference, Kingdom of Saudi Arabia - College of Veterinary Medicine, King Faisal University, October 2022 - Scientific lecture and published research (Nutrition).
- Animal and Poultry Nutrition Conference, Bangkok, Thailand, March 2023 (Nutrition).
- Poultry Nutrition Conference, USA, Philadelphia, July 2023 - Scientific lecture and published research (Nutrition).
- Animal and Poultry Nutrition Conference, Istanbul, Turkey, July 2023 - Attendance (Nutrition).
- Sixth Conference of the International Society for Camel Research and Development (ISOCARD) 2023 - The Role of Camels in Achieving Food Security and Economic Development, Saudi Arabia, King Faisal University, Kingdom of Saudi Arabia (Parasitology).
- International Toxicology Conference, Arab Republic of Egypt, and the associated training course (Forensic).

c) National conferences:

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- 1-The Ninth International Conference on Arab Impact Factor is scheduled to take place in Ain Sokhna, Egypt.
- 2-The Ninth International Conference of the Veterinary Research Division is scheduled to be held at the National Research Center in Cairo.
- 3-The Sixteenth Scientific Conference at Zagazig University, titled "Veterinary Medicine: Challenges and Sustainable Development."

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?

*Over the past year, significant advancements have been made in various areas of focus through updated technology and enhanced practices. In disease control, the detection and management of zoonotic diseases in both animals and humans were improved through workshops and symposiums that introduced advanced diagnostic methods and prevention strategies. The Internal Medicine and Infectious Diseases Clinic saw a high volume of cases, utilizing a cadre of specialist veterinarians and updated diagnostic tools to provide comprehensive care. Environmental sustainability was also a key focus, with seminars and workshops addressing the impact of climate change on health and promoting practices such as recycling and the use of digital pathology to reduce environmental harm. The establishment of the Biosecurity and Infection Control Unit, alongside the development of biosafety measures in laboratories, has fortified our response to infectious diseases and biological risks. Additionally, the implementation of portable sequencing technology for rapid identification of respiratory viruses in poultry and the use of digital pathology labs have revolutionized diagnostic capabilities, ensuring faster and more accurate results. Efforts in vaccine development, such as nanoparticle-encapsulated DNA vaccines against some viruses, highlight our commitment to combating avian diseases. Furthermore, collaboration with international and local entities has fostered the exchange of knowledge and the application of cutting-edge scientific methods, ultimately contributing to the betterment of animal and public health.*

12. Additional comments regarding your report: