



هيئة أبوظبي للزراعة والسلامة الغذائية
ABU DHABI AGRICULTURE AND FOOD
SAFETY AUTHORITY

Role of WOAH collaborating centre for camel diseases WOAH collaborating centre for Quality Management

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Biosecurity Affairs Division

- Government laboratory
- Four regional laboratories across Abu Dhabi Emirate and One mobile Lab.

- World Organization for Animal Health (WOAH) Collaborating Centre for Camel Diseases
- WOAH collaborating centre for Quality Management



- National Reference laboratory for MERS-CoV
- National Reference laboratory for CCHFV

- Provide consultancy and technical support in standardizing diagnostic techniques for Animal diseases and strategies for monitoring and controlling significant diseases.

- Provide workshops and short-term training seminars in diagnostic technologies and dispatches lecturers to conferences to improve animal health and facilitate cooperation with national and international scientific partners.

- ADAFSA Laboratories obtained several accreditations and certifications from local and international entities for its activities and services in diagnosing epidemic and zoonotic diseases.






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 ABU DHABI AGRICULTURE AND FOOD SAFETY AUTHORITY

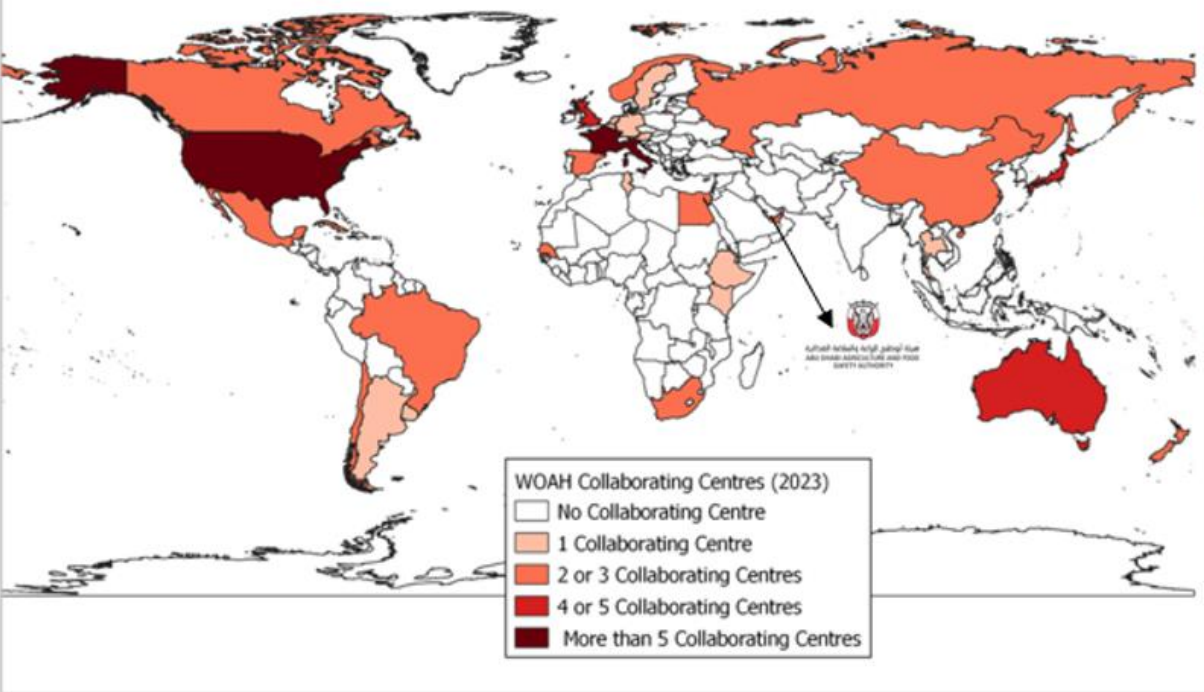
* Laboratory will coordinate across CoViNet Reference Laboratory members within the country

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Data Source: World Health Organization, WHO CoViNet
 Map Production: WHO Health Emergencies Programme
 Map Date: 11 March 2024

 World Health Organization
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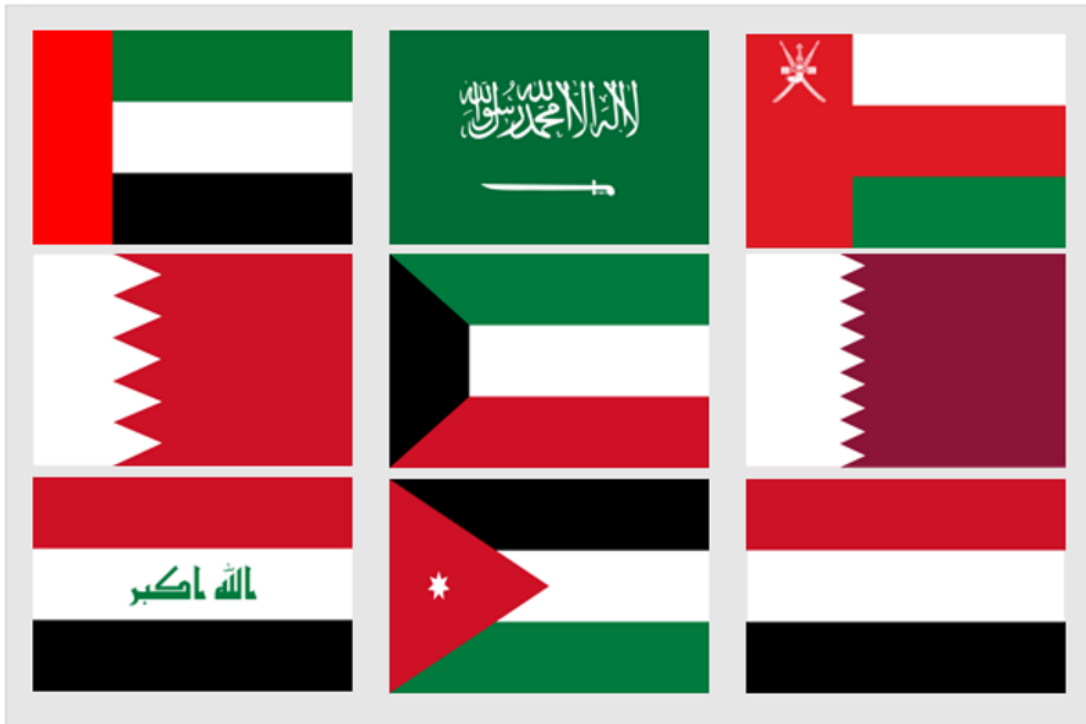
World distribution of WOAAH Collaborating Centres



WHO Coronavirus Network (CoViNet)

Camel Middle East NETwork (CAMENET)

كامينيت
CAMENET
شبكة الشرق الأوسط للإبل
Camel Middle East Network



- Established based on the need to set up a network of laboratories for camel diseases
- It is a sub-regional network of laboratories, epidemiologists and husbandry specialists in camel in the Middle East

UAE, KSA, Kuwait, Qatar, Bahrain, Oman, Iraq, Yemen, Jordan

To assist and support member countries developing camel sector, and control camel diseases

- ✓ Providing consultation on camel diseases
- ✓ Innovation in building capabilities

Improving scientific and technological capacities in epidemiology and diagnostic of camel diseases in the sub-region

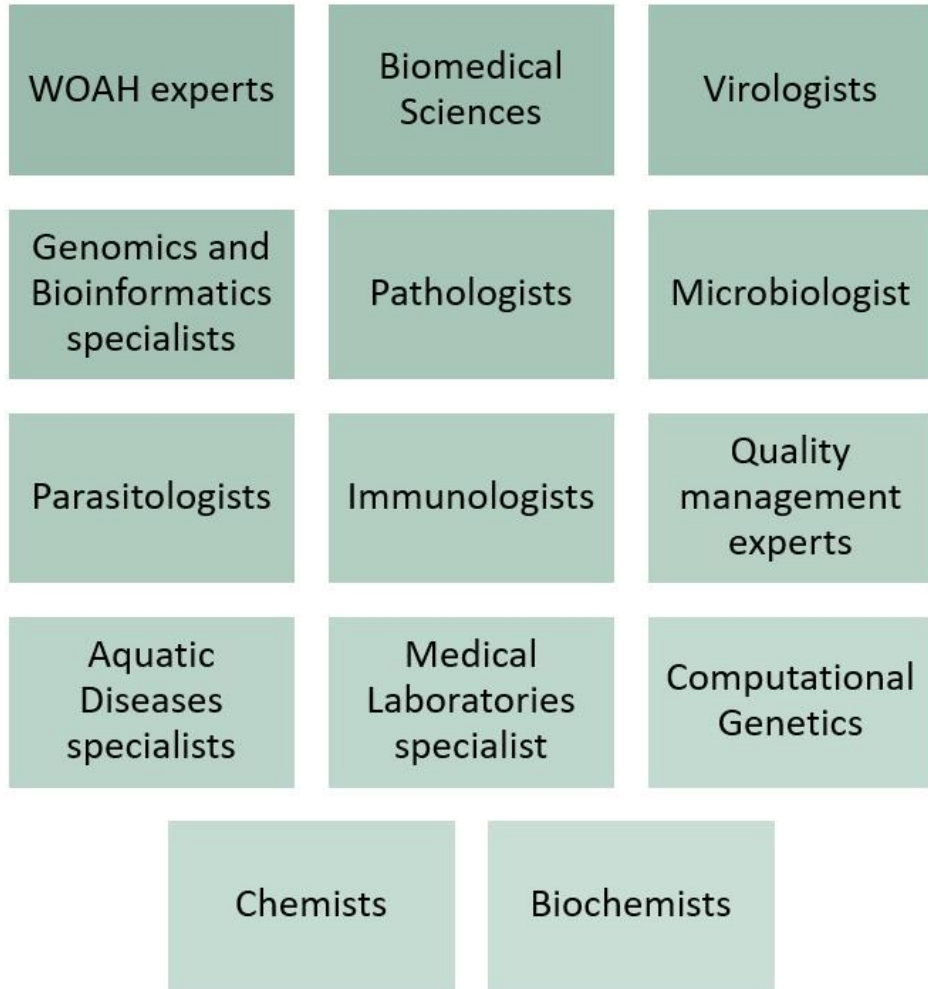
Promotion of research in camel diseases' epidemiology and pathology

Training on surveillance, diagnosis and prevention of camel diseases

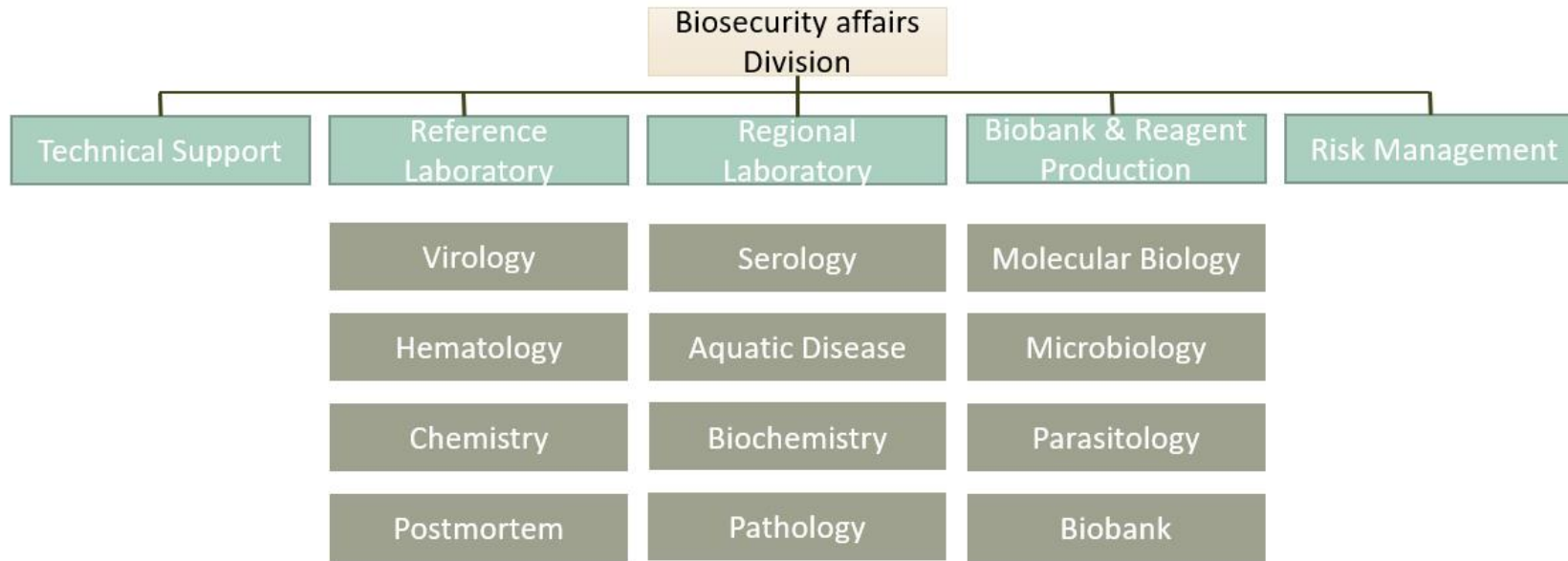
Information and management of health crisis related to the camels



Employed more than 60 employees, including veterinarians with different specialties



Structure and Infrastructure



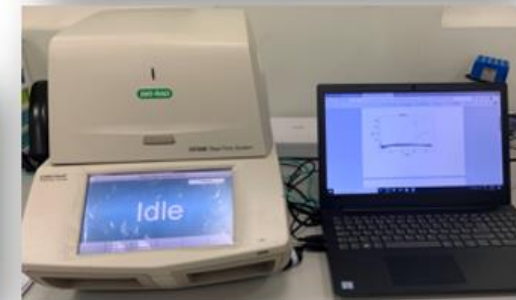
The laboratories are well equipped with **reagent production**, **Biobank system**, and **Modern diagnostic equipment** including **NGS (Sanger and next-generation sequencing system)**, **High throughput ELISA system**, **Electron and Fluorescence microscopy**, **VitekII**, Freeze –drier, AKTA Avant KTA 25 FPLC), **cell culture**, **bacterial**, **viral** and **Tick identification facilities**, **embryonated eggs system**, **advanced virus titration equipment**, **gel-based and real-time PCR systems**.

Diagnostic tests:- Screening and confirmatory testing, ranging from **conventional**, **immunological**, and **molecular diagnostics** .

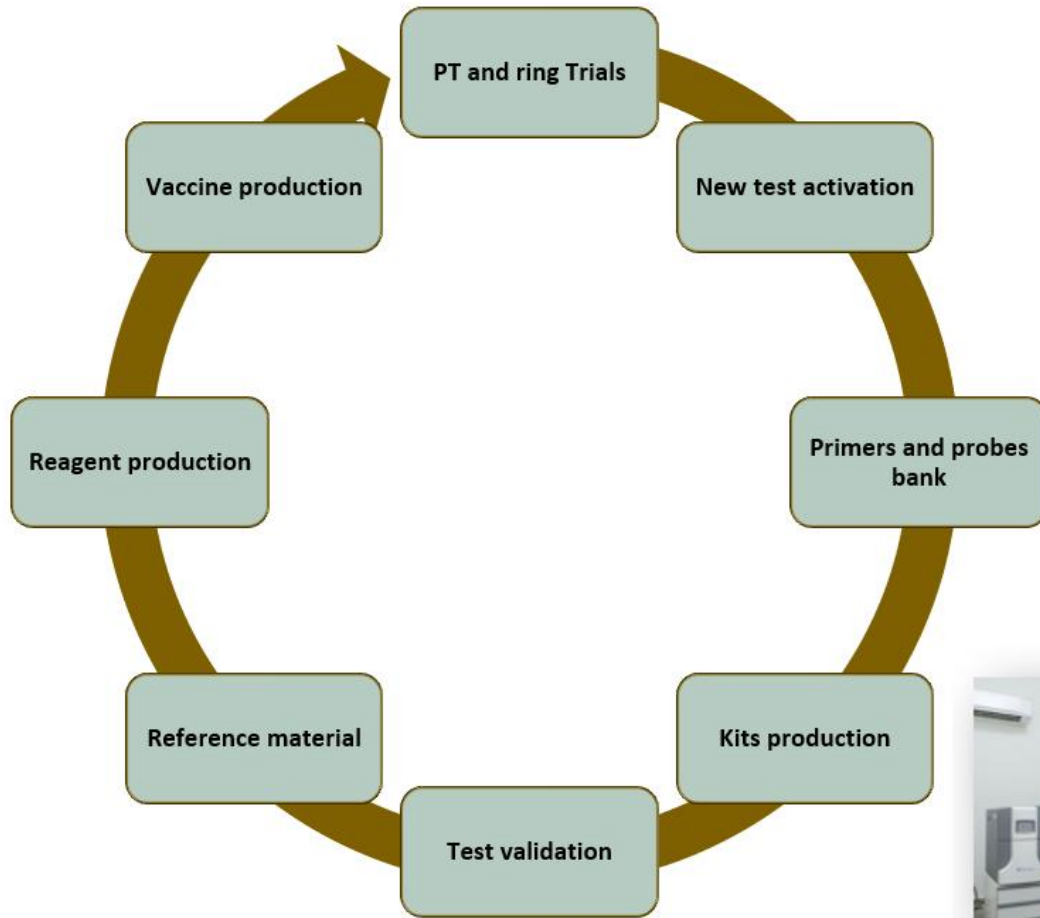


Brucellosis testing

- 1 RBT
- 2 ELISA
- 3 CFT
- 4 SAT
- 5 PCR/qRT-PCR
- 6 AMOS
- 7 Sequencing
- 8 Culture



Well established biobank (Activate, Response, Measure, Monitor and Control)

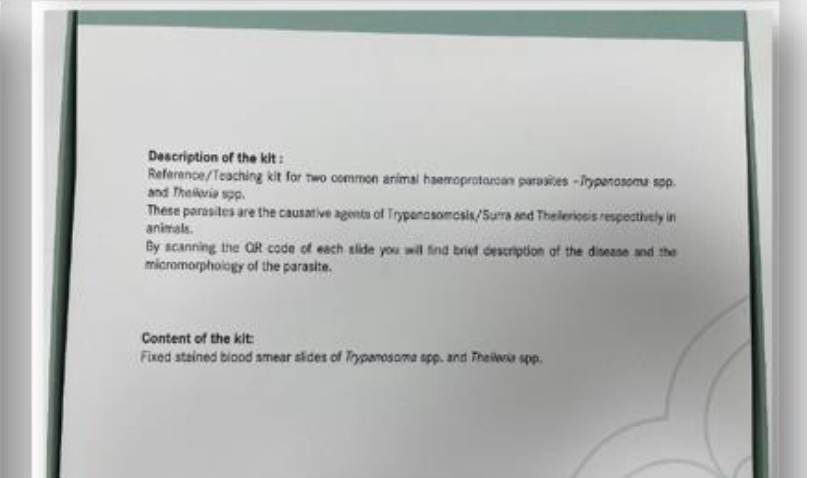
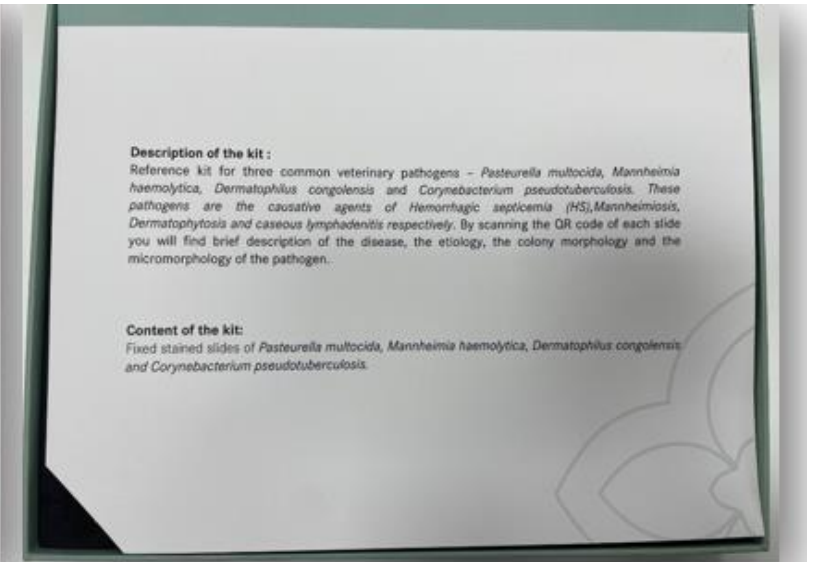
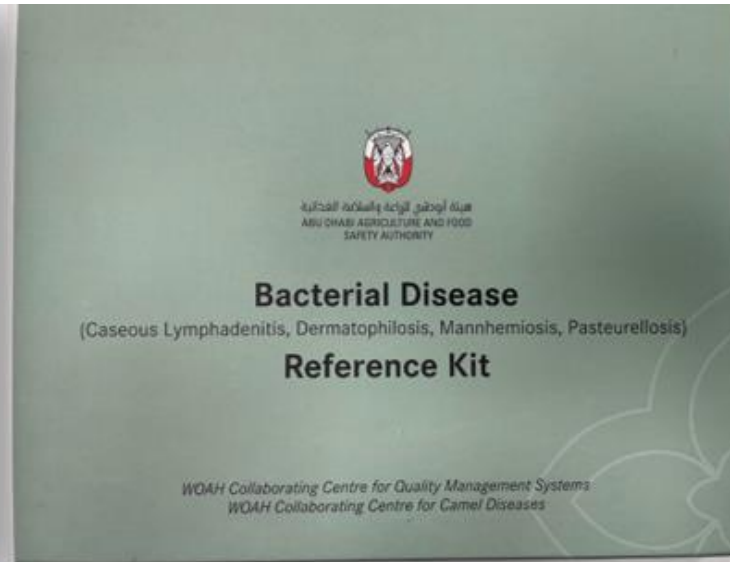


Highly important isolates and samples at VLD Biobank

SN	Disease name	Pathogen	Sample type
1	Brucellosis	<i>Brucella abortus</i> and <i>Brucella melitensis</i>	Isolates & Tissues & Serum
2	Hemorrhagic septicemia (Pasteurellosis)	<i>Pasteurella multocida</i>	Isolates & Tissues
3	Caseous lymphadenitis (CL)	<i>Corynebacterium pseudotuberculosis</i>	Isolates & Tissues
4	Paratuberculosis	<i>Mycobacterium avium</i> subspecies <i>paratuberculosis</i>	Isolates & Tissues & slides & Serum
5	Gangrenous mastitis	<i>Streptococcus agalactiae</i>	Isolates
6	Mannheimiosis	<i>Mannheimia haemolytica</i>	Isolates
7		<i>Bibersteinia trehalosi</i>	Isolates
8	Colibacillosis	<i>E.coli</i>	Isolates
9	Salmonellosis	<i>Salmonella</i> spp	Isolates
10	Enterotoxemia	<i>Clostridium perfringens</i>	Isolates & Tissues
11	Lumpy Skin Disease	Lumpy Skin Disease Virus	Tissues
12	Middle East respiratory syndrome (MERS)	MERS-CoV	Serum
13	Crimean-Congo haemorrhagic fever (CCHF)	Nairovirus	Serum
14	Trypanosomosis	<i>Trypanosoma</i> spp	Slides
15	Theileriosis	<i>Theileria</i> spp	Slides
16	Foot and Mouth Disease Virus (FMD)	FMD virus	Tissues & Serum
17	Peste Des Petitis Ruminants (PPR)	PPR virus	Tissues
18	Newcastle disease	Avian paramyxovirus (APMV) type 1	Tissues
19	Monkeypox	Monkeypox virus	Tissues
20	Fowl adeno	Fowl adeno viruses	Tissues
21	Rabies	Lyssa virus	Tissues
22	Capripox	Capripox virus	Tissues
23	Blue Tongue	Blue Tongue virus	Tissues & Serum
24	Camelpox	Camelpox virus	Tissues
25	Contagious Caprine Pleuropneumonia (CCPP)	Contagious Caprine Pleuropneumonia virus	Tissues & Serum



Reference kits innovation



Educational kits innovation



We emphasize on collaboration and knowledge sharing in our innovations



ISOCARD -KSA



Innovation week



Qatar & Oman



World Organisation for Animal Heal...
@WOAH_MiddleEast

In pursuit of enhancing capabilities, as a result of collaborative efforts with CAMENET Members from #UAE, #Qatar and #Oman, reference kits for camel parasitology and bacteriology have been prepared, aiding educational materials for #veterinarians and researchers.



Registered intellectual property


الإمارات العربية المتحدة
وزارة الاقتصاد

Certificate Password: 4639 كلمة مرور الشهادة: 4639

Intellectual Works Rights Registration تسجيل حقوق المصنفات الفكرية



The Ministry of Economy states that the work subject of this certificate was registered with the Department of Trademarks and Intellectual property on 09-05-2024 according to the copy registered with the Department.

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بيانات الشهادة	
Certificate number:	774-2024
Certificate Date:	09-05-2024
Property name:	Primers and probes bank
Right type:	Financial
Property type:	Databases
Author name:	- Zulaikha Mohamed Alhammadi Nationality (United Arab Emirates) - Mahd Farouk Bin Mohd Nationality (MALAYSIA) - Hassan Zackaria Ali Nationality (Sudan)
Property's Copyright Holder Name:	-
Behavior Date From:	07-05-2024
to:	According to the period of legal protection

اسم صاحب حقوق المصنف: هبة أبو طهي للزراعة و المسئلة الغذائية
 مدة التصرف من: 07-05-2024
 إلى: حسب مدة الحماية القانونية

إدارة حق المؤلف والتفوق المجاورة


الإمارات العربية المتحدة
وزارة الاقتصاد

Certificate Password: 8605 كلمة مرور الشهادة: 8605

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بيانات الشهادة	
Certificate number:	775-2024
Certificate Date:	09-05-2024
Property name:	Veterinary bacteriology Reference Slides Kit
Right type:	Financial
Property type:	Written works
Author name:	- zulaikha mohamed alhammadi Nationality (United Arab Emirates) - Noura abdelmajeed Alzarooni Nationality (United Arab Emirates) - Ghada Ahmed Elderdir Abdel Wahab Nationality (Sudan) - Muna Sayed Yaqoub Alyassi Nationality (United Arab Emirates)
Property's Copyright Holder Name:	-
Behavior Date From:	08-05-2024
to:	According to the period of legal protection

اسم صاحب حقوق المصنف: هبة أبو طهي للزراعة و المسئلة الغذائية
 مدة التصرف من: 08-05-2024
 إلى: حسب مدة الحماية القانونية

إدارة حق المؤلف والتفوق المجاورة


الإمارات العربية المتحدة
وزارة الاقتصاد

Certificate Password: 9688 كلمة مرور الشهادة: 9688

Intellectual Works Rights Registration تسجيل حقوق المصنفات الفكرية



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بيانات الشهادة	
Certificate number:	764-2024
Certificate Date:	06-05-2024
Property name:	Veterinary Parasitology Reference Slides Kit
Right type:	Financial
Property type:	Written works
Author name:	- zulaikha mohamed alhammadi Nationality (United Arab Emirates) - Noura abdelmajeed Alzarooni Nationality (United Arab Emirates) - Shameem Habeeba Beel Nationality (India) - Asma Abd Mohammed Aynat Shah Nationality (United Arab Emirates)
Property's Copyright Holder Name:	-
Behavior Date From:	06-05-2024
to:	According to the period of legal protection

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 مدة التصرف من: 06-05-2024
 إلى: حسب مدة الحماية القانونية

إدارة حق المؤلف والتفوق المجاورة

Copyright and Related Rights Department



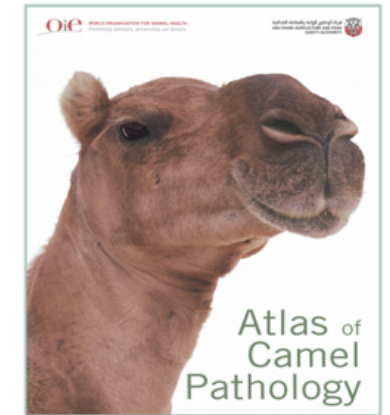
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Joint training and publications

- ✓ In collaboration with WOAHA conducted a workshops on **Brucellosis** and trypanosomiasis in camels, Nov. 2021
- ✓ Collaboration with the WOAHA reference laboratories of **IZSs** in evaluating the performance of an Immunochromatographic Test (ICT) in comparison to some commonly used serological tests for the diagnosis of brucellosis in camels as part of diagnostic method validation on camels.
- ✓ **Hands-on Training on Laboratory Diagnosis of Camel brucellosis Abu Dhabi, UAE** “ FAO-ADAFSA's Hands-on Training Session on Camel Brucellosis Laboratory Diagnosis (Serology, Bacteriology, Molecular Detection)” in **August 2024**
- ✓ **ADAFSA internal training on camel diseases, OH, biobanking, etc.**

Publications

Year	Scope	Article /book name
2019	Brucellosis	1. Performance of an Immunochromatographic Test (ICT) in Comparison to Some Commonly Used Serological Tests for the Diagnosis of Brucellosis in Dromedary Camels (<i>Camelus dromedarius</i>)
2020	Brucellosis	1. Atlas of Camel Pathology 2. Preliminary Comparative Assessment of Brucellergene Skin Test for Diagnosis of Brucellosis in Dromedary Camels (<i>Camelus dromedarius</i>)



Capacity building



From the UAE for a OIE twinning project



Targeted and directed training



ملاحظة: يتم تدريب الطلاب بحسب الجدول المرفق مع مزاولة الخدمة :

رقم	التاريخ	الوقت	القسم	رقم دليل التشغيل الداخلي	الموظف المسؤول
1	2021/01/20		عام	- دليل الصحة والسلامة في إدارة المختبرات البيطرية - التعريف بآليات إدارة المختبرات البيطرية	رائحة الحمادي
2	2021/01/20 الى 2021/01/21		قسم اسلالم الحيوانات والاشراخ المرضي	- اسلالم الحيوانات - إدارة العينات وتصديدها - التشرخ المرضي - تقنيات لتبرخ الأسنحة العرصية	هلال المنصوري مر نصر الدين
3	2021/01/24 الى 2021/01/26		وحدة الكيمياء العامة	- تحليل الدم العام - المقارنات المعيارية	م. حميدة المحمدي
4	2021/01/27 الى 2021/01/28		وحدة الكيمياء التخصصية	- تقنيات الكشف عن السموم العظمية - تقنيات قياس الفيتامينات في الدم	أمل العامري نادية الحوسني
5	2021/01/31 الى 2021/02/02	08:00 الى	وحدة البيولوجيا	- تقنيات زراعة الكتلريا - تقنيات تعريف الكتلريا - استخدام الآصناعات الجينية - التعريف بالأمراض زراعة الفطريات	د. غادة عبدالوهاب م. م. سيد
6	2021/02/03 الى 2021/02/04	13:00	وحدة الطفيليات	- التحصن الطفيليات الداخلية - التحصن الطفيليات الخارجية	د. هديم حبيبة
7	2021/02/07 الى 2021/02/11		وحدة الاحياء المرضية	- اسلخالص العينات لتحصن الحصن النووي - استخدام تقنيات تكامل البعرة في التحصين - التعريف بأواع الأبرن المختلفة	د. حسن كزريا
8	2021/02/14 الى 2021/02/16		وحدة السيرولوجي	- التعريف بالفحوصات السريرة المستخدمة في التشخيص المرضي	د. راشد علي خان
9	2021/02/17 الى 2021/02/18		وحدة الفيروسات	- زراعة الفيروسات - معايرة الأجهزة	حمدون العويش



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SAFETY AUTHORITY

Competency Manual
RESTRICTED



Targeted and directed training

- United Arab Emirates University (UAEU)
- Higher colleges of Technology (HCT)
- University Of Sharjah (UOS)
- Abu Dhabi Vocational, Educational & Training institute (ADVETI)
- PhD students (Thesis)
- Master Students (Thesis)
- Governmental and private institutions
- World organizations
- Schools' students (different grads)

 <p>World Organisation for Animal Health Founded as OIE</p>	 <p>معهد أبوظبي للتعليم والتدريب المهني Abu Dhabi Vocational Education & Training Institute</p>
 <p>Food and Agriculture Organization of the United Nations</p>	 <p>جامعة الشارقة UNIVERSITY OF SHARJAH</p>
 <p>بلدية الشارقة SHARJAH MUNICIPALITY</p>	 <p>جامعة الإمارات العربية المتحدة United Arab Emirates University</p> 
 <p>بلدية رأس الخيمة Ras Al Khaimah Municipality</p>	 <p>وزارة التربية والتعليم MINISTRY OF EDUCATION</p>

Inter-laboratory comparison & PT programs

- **Biosecurity Affairs Division established a multi-regional ring trial on camel diseases** in collaboration with IZS on the application of certain disease prevention and control rules .
- **Biosecurity Affairs Division took the lead in initiating an inter-laboratory comparison program at the national and regional levels.** This program proved successful with the participation of a total of 17 local and international laboratories including Saudi Arabia, Kuwait, Iraq, India and Syria. The test methods involved in this program were:
 1. Brucella by RBT, (New PT is initiated)
 2. Brucella by ELISA, (New PT is initiated)
 3. Trypanosoma detection by microscopic examination and PCR,
 4. MERS-CoV detection by Real-Time PCR
 5. MERS-CoV detection by Immunochromatography Assay rapid test.
 6. Camel Poxvirus by Real-Time PCR
 7. First PPRV PT for Camel samples in collaboration with CIRAD (PT)

Upon completion of each round of the program, an evaluation report is released to each participating laboratory to ensure continuous improvement and if any corrective action is required by the participated laboratories.





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THANK YOU