

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 17 juin 2024 16:49

Laboratory Information

Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Brucellosis (B.melitensis and B.abortus)
Address of laboratory:	Kimron Veterinary Institute, 68 Hamaccabim Rd. Rishon Lezion Israel
Tel.:	+972-3 968 1715
E-mail address:	Svetab@moag.gov.il
Website:	
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Svetlana Bardenstein DVM, PhD
Name (including Title and Position) of WOA Reference Expert:	Dr. Svetlana Bardenstein DVM, PhD
Which of the following defines your laboratory? Check all that apply:	Governmental

TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.?
(Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOA Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
complement fixation test		37229	107
agglutination test		5596	107
fluorescent polarization assay		47806	0
bacterial culture		276	23
Rose Bengal test		712	107
Direct diagnostic tests			
vaccine efficacy validation		30	2

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOA?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA Members?

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA Members?

No

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

No

7. Did your laboratory validate diagnostic methods according to WOAHS Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOAHS Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAHS Members?

No

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAHS Member?

Yes

NAME OF THE WOAHS MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
KAZAKHSTAN	professional consult and laboratory personnel training in diagnostic methods	attending a regional meeting and providing classes and hands on wet laboratory training
KYRGYZSTAN	professional consult and laboratory personnel training in diagnostic methods	attending a regional meeting and providing classes and hands on wet laboratory training and visiting local labs.
UZBEKISTAN	professional consult and laboratory personnel training in diagnostic methods	attending a regional meeting and providing classes and hands on wet laboratory training and visiting local labs.
TURKMENISTAN	professional consult and laboratory personnel training in diagnostic methods	attending a regional meeting and providing classes and hands on wet laboratory training
TAJKISTAN	professional consult and laboratory personnel training in diagnostic methods	attending a regional meeting and providing classes and hands on wet laboratory training

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAHS Members other than the own?

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAHS MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Elucidating human-animal network dynamics in a setting of distrust: a multi-disciplinary model for Brucella transmission among Bedouin in the Negev	1 year	improving brucellosis control within the semi-nomadic population in Israel	Ben Gurion University & University of Washington	UNITED STATES OF AMERICA

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAHS?

No

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

No

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:

providing current status of Brucellosis in the various regions of the state of Israel and foreign countries

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

6

1. *National epidemiology of culture-confirmed brucellosis in Israel, 2004-2022.*

Weinberger M, Moran-Gilad J, Perry Markovich M, Bardenstein S *Epidemiology and Infection Journal.* 2023

2. *Public and Animal Health Risks Associated with Spillover of Brucella melitensis into Dairy Farms.*

Bardenstein S, Grupel D, Blum SE, Motro Y, Moran-Gilad J *Microbiology Society Journal, Microbial genomics.* 2023 April, Vol 9, Issue 4

3. *Serum PCR diagnosis of Brucella melitensis infection in Rev1 vaccinated sheep.*

Mathur S, Bardenstein S, Cohen D, Banai M, Mathur Shubham, Bardenstein S, Daniel Cohen, Banai Menachem *J. Microbiology Research.* 2022

4. *Genomic Epidemiology of Clinical Brucella melitensis Isolates from Southern Israel.*

Zilberman B, Motro Y, Sagi O, Kornspan D, Ben-Shimol S, Gdalevich M, Yagel Y, Davidovitch N, Khalfin B, Rabinowitz P, Neshet L, Grotto I, Bardenstein S, Moran-Gilad J *Microorganisms.* 2022 Jan 22;10(2):238. doi: 10.3390/microorganisms10020238

5. *Natural Brucella melitensis infection and Rev.1 vaccination induce specific anti-Brucella O-polysaccharide antibodies involved in the complement mediated Brucella cell killing.*

Mathur Shubham, Daniel Cohen, Bardenstein S, Banai Menachem. *Vaccine,* 2022 10(2): 317 doi: 10.3390/vaccines10020317

6. *Long-Read Sequencing and Hybrid Assembly for Genomic Analysis of Clinical Brucella melitensis Isolates.*

Hillary A. Craddock, Motro Y, Bar Zilberman, Khalfin B, Bardenstein S, Moran-Gilad J *Microorganisms.* 2022 Jan 22;10(2):619. doi: 10.3390/microorganisms10020238

b) International conferences:

1

Central Asian Animal Health Network

Samarkand, 8-9 June, 2023

c) National conferences:

2

1. *annual meeting of the national bovine commission.* Nov 2023

2. *annual meeting of the Israeli association of microbiology.* Aug 2023.

3. *national conference of one health.* Sep 2023.

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

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAHO Members?

Yes

a) Technical visit : 20

b) Seminars : 20

c) Hands-on training courses: 20

d) Internships (>1 month) 0

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
A	KAZAKHSTAN	3
A	KYRGYZSTAN	10
A	UZBEKISTAN	3
A	TAJIKISTAN	2
A	TURKMENISTAN	2
B	KAZAKHSTAN	3
B	KYRGYZSTAN	10
B	UZBEKISTAN	3
B	TAJIKISTAN	2
B	TURKMENISTAN	2
C	KAZAKHSTAN	3
C	KYRGYZSTAN	10
C	UZBEKISTAN	3
C	TAJIKISTAN	2
C	TURKMENISTAN	2

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO 17025	Accreditation Certificate No. 120 ISO/IEC 17025:2017 ISO 15189:2022 Main site address: P.O.Box 12, Beit Dagan, 50250, Israel Ety Feller Kimron Veterinary Institute - Ministry of agriculture	ISO 2024-2026.pdf
ISO 15189	Accreditation Certificate No. 120 ISO/IEC 17025:2017 ISO 15189:2012 Main site address: P.O.Box 12, Beit Dagan, 50250, Israel Ety Feller Kimron Veterinary Institute - Ministry of agriculture	ISO 17025+15189, 2022-2024.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
CFT	Israel Laboratory accreditation Authority
SAT	Israel Laboratory accreditation Authority
FPA	Israel Laboratory accreditation Authority
Rose Bengal test	Israel Laboratory accreditation Authority
bacterial culturing and identification of Brucella. spp	Israel Laboratory accreditation Authority
PCR	Israel Laboratory accreditation Authority

20. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned?

Yes

maintaining BSL-3 conditions in the lab.

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOA?H?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOA?H?

No

TOR10: NETWORK WITH WOA?H REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOA?H Reference Laboratories designated for the same pathogen or disease?

Yes

24. Do you network (collaborate or share information) with other WOA?H Reference Laboratories designated for the same pathogen?

Not applicable (Only WOA?H Reference Laboratory designated for the disease)

25. Did you organise or participate in inter-laboratory proficiency tests with WOA?H Reference Laboratories designated for the same pathogen?

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOA?H REF. LABS/ ORGANISING WOA?H REF. LAB.
training of the lab staff and maintenance of the lab accreditation	participant	49	VETQAS

26. Did your laboratory collaborate with other WOA?H Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Not applicable (Only WOA?H Reference Laboratory designated for the disease)

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOA?H Reference Laboratories for the same pathogen?

No

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOA?H?

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
isolation and identification of Brucella from tissue samples, submitted by other labs	Kosovo	identification and verification of Brucella isolates
isolation and identification of Brucella from tissue samples, submitted by other labs	Palestinian Authority	identification and verification of Brucella isolates

29. Additional comments regarding your report:

No