

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 10 juin 2024 17:08

Laboratory Information

Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Tuberculosis de los mamíferos
Address of laboratory:	Avenida Puerta de Hierro s/n 28040 Madrid (España)
Tel.:	+34913944033
E-mail address:	bromerom@ucm.es
Website:	www.bovinetuberculosis.eu
Name (including Title) of Head of Laboratory (Responsible Official):	Beatriz Romero Martínez (Director of the VISAVET Health Surveillance Centre)
Name (including Title and Position) of WOA Reference Expert:	Beatriz Romero Martínez (Doctor and Assistant Professor)
Which of the following defines your laboratory? Check all that apply:	Academic institution

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			
Serología (suidos, caprino, cérvidos)		1500	0
Interferón gamma (bovino, caprino)		3500	18
Histopatología		160	4
Direct diagnostic tests			
Cultivo bacteriológico		1306	4
Identificación		400	0
Espoligotipado		1600	0
VNTRs		20	0
Secuenciación masiva (WGS)		300	0

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?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED	AMOUNT SUPPLIED INTERNATIONALLY	NO. OF RECIPIENT WOA MEMBER	COUNTRY OF RECIPIENTS
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			NATIONALLY (ML, MG)	(ML, MG)	COUNTRIES	
Homogenizado de tejidos	Cultivo y/o PCR directa	EU-RL for bovine tuberculosis	6ml	0	1	SPAIN,
Spoligotyping membrane	Molecular characterization (spoligotyping)	EU-RL for bovine tuberculosis	2	0	1	SPAIN,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHA 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 WOAHA Standards for the designated pathogen or disease?

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
Evaluación del rendimiento del ensayo de IFN- γ en bovino libre de tuberculosis	Evaluación del rendimiento de los test IGRA en rebaños oficialmente libres de tuberculosis para valorar si su especificidad es igual o superior a la intradermotuberculinización https://pubmed.ncbi.nlm.nih.gov/37403088/

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

No

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

NAME OF WOAHA MEMBER COUNTRY SEEKING ASSISTANCE	DATE	WHICH DIAGNOSTIC TEST USED	NO. SAMPLES RECEIVED FOR PROVISION OF DIAGNOSTIC SUPPORT	NO. SAMPLES RECEIVED FOR PROVISION OF CONFIRMATORY DIAGNOSES
NORWAY	2023-06-20	Ensayo de IFN-gamma Identificación de micobacterias	31	0
MALTA	2023-03-01	Cultivo y PCR directa de tejido	4	0

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

Yes

NAME OF THE WOAHA MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
NORWAY	PCR a tiempo real para detección de micobacterias, implementación del ensayo IFN-gamma, protocolos de diagnóstico de Tb para ovejas, perros y gatos, serología en vacas	e-mail
ITALY	Efecto de la edad en el ensayo IFN-gamma	e-mail
ROMANIA	Intradermotuberculinización en animales preñados	e-mail
SWITZERLAND	Empleo del ensayo IFN-gamma en animales jóvenes, protocolos de PCR a tiempo real, fabricantes de PPDs	e-mail
ISRAEL	Especificidad del ensayo de IFN-gamma	e-mail
SWEDEN	Protocolo de intradermotuberculinización	e-mail
NORTH MACEDONIA (REP. OF)	VNTRs por electroforesis capilar	e-mail

IRELAND

Automatización el ELISA IFN-gamma

e-mail

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAH MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
AD HOC GROUP: SUB-GROUP ON REPLACEMENT OF THE INTERNATIONAL STANDARD AVIAN TUBERCULIN (ISAT)	2023-actualidad	Elaboración y control de un nuevo estándar internacional de PPD Bovina	OMSA / Distintos Organismos Sanitarios Oficiales	ARGENTINA FRANCE UNITED KINGDOM UNITED STATES OF AMERICA

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

No

TOR6: EPIZOOLOGICAL DATA

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

Yes

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

Contrato con el Ministerio de Agricultura, Pesca y Alimentación de España

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:

Interferón-gamma
Factores de recurrencia de brotes
Datos del programa de erradicación español, etc

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:

8

Bovine tuberculosis in Spain, is it really the final countdown?. DOI: 10.1186/s13620-023-00241-0

Evaluation of the performance of the IFN- γ release assay in bovine tuberculosis free herds from five European countries DOI: 10.1186/s13567-023-01187-5

Once bitten twice shy: Risk factors associated with bovine tuberculosis recurrence in Castilla y Leon, Spain DOI: 10.1016/j.rvsc.2023.04.011

Seroepidemiology of tuberculosis in sheep in southern Spain DOI: 10.1016/j.pvetmed.2023.105920

Accuracy of Tests for Diagnosis of Animal Tuberculosis: Moving Away from the Golden Calf (and towards Bayesian Models) DOI: 10.1155/2023/7615716

Differences in skin test reactions to official and defined antigens in guinea pigs exposed to non-tuberculous and tuberculous bacteria DOI: 10.1038/s41598-023-30147-4

b) International conferences:

1

Webinar on World TB day. Diagnostics and science: a "One Health" perspective. Organizado por European Association of Veterinary Laboratory Diagnosticians (EAVLD), el 24 de marzo de 2023 (<https://eavld.org/webinar-world-tb-day-diagnostics-and-science-a-one-health-perspective-2/>)

c) National conferences:

2

XXVI Simposio Anual de la Asociación De Especialistas En Diagnóstico Laboratorial Veterinario AVEDILA. Elche-Orihuela 19 a 21 noviembre 2023 (<https://avedila.com/>)
Curso de formación en los aspectos teóricos, prácticos
y de base legal en el diagnóstico de la tuberculosis bovina

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

1

Jornadas Vigilancia Sanitaria 2023: presente y futuro para el 2030. Organizadas por el Grupo de Investigación Vigilancia Sanitaria de la Universidad Complutense de Madrid. Madrid, 6-7 de julio de 2023 (<https://www.ucm.es/vigilanciasanitaria/jornadas-vigilancia-sanitaria-2023>)

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

a) Technical visit : 1

b) Seminars : 0

c) Hands-on training courses: 1

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	SLOVENIA	2
C	ROMANIA	1

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO-IEC 17025:2017	PDF	Certificate 817-LE1410 VISAVET.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
ISO-IEC 17025:2017	Entidad Nacional de Acreditación (ENAC)

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

Yes

Nuestro centro cuenta con un servicio de bioseguridad y riesgo biológico, siguiendo las pautas del responsable técnico y del administrador local (INSST). Éste se basa en las directrices de bioseguridad de laboratorio de la OMS y en el Real Decreto 664/1997, de 12 de mayo, sobre la protección de los trabajadores contra los riesgos relacionados con la exposición a agentes biológicos durante el trabajo.

TOR9: SCIENTIFIC MEETINGS

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

No

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

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
AD HOC GROUP: SUB-GROUP ON REPLACEMENT OF THE INTERNATIONAL STANDARD	2023-07-06	online	Integrante del grupo ad hoc	Reunión inicial: criterios de selección del material, lista de fabricantes potenciales, plan de

AVIAN TUBERCULIN (ISAT)				trabajo
D HOC GROUP: UPDATE ON REPLACEMENT OF THE INTERNATIONAL STANDARD BOVINE AND AVIAN TUBERCULIN (ISBT and ISAT)	2023-10-16	online	Integrante del grupo ad hoc	Resumen de resultados ISBT e inicio del ISAT

TOR10: NETWORK WITH WOAHA REFERENCE LABORATORIES

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

Yes

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

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHA REF. LABS
Tuberculosis animal	Organizador	27	ANSES, Francia /APHA, UK

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

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOAHA REF. LABS/ ORGANISING WOAHA REF. LAB.
Caracterización molecular	Organizador	13	2

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

No

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

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

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the Test	WOAHA Member Countries
Caracterización molecular	Organizador y participante	13	Caracterización molecular de aislados del complejo M. tuberculosis	AUSTRIA, CROATIA, DENMARK, FRANCE, GERMANY, IRELAND, ITALY, LATVIA, PORTUGAL, SPAIN, SWITZERLAND, THE NETHERLANDS,
Cultivo bacteriológico y detección directa por PCR en tejido	Organizador y participante	25	PROFICIENCY TESTING FOR THE BACTERIOLOGICAL CULTURE AND DIRECT DETECTION OF MEMBERS OF THE Mycobacterium tuberculosis COMPLEX IN BOVINE TISSUE	
Cultivo bacteriológico y detección directa por PCR en tejido	Participante	13	Ensayo de intercomparación para la detección de micobacterias del complejo CMT en muestras clínicas: PCR directa y aislamiento microbiológico	

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
grupo ad hoc Replacement International Standard		Pruebas de actividad biológica de distintas

Bovine Tuberculin

online

preparaciones de tuberculinas

29. Additional comments regarding your report:

Yes

Tenemos disponibles en la página web del Laboratorio Europeo de Referencia para la Tuberculosis Bovina varios protocolos e información relevante para su consulta en abierto, que se pueden visualizar en las secciones de tuberculosis animal o en bases de datos (<https://www.visavet.es/bovinetuberculosis/>).