

WOAH Reference Laboratory Reports Activities 2024

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LABORATORY INFORMATION

*Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory:	Ovine epididymitis
*Address of laboratory:	Via Campo Boario 64100 Teramo
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*E-mail address:	f.demassis@izs.it
Website:	www.izs.it
*Name (including Title) of Head of Laboratory (Responsible Official):	Dr Nicola D'Alterio, DVM, Director General
*Name (including Title and Position) of WOAHO Reference Expert:	Dr Fabrizio De Massis, DVM, Head of Branch Laboratory
*Which of the following defines your laboratory? Check all that apply:	Governmental Research agency

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 WOAHO Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
B. ovis CFT	Yes	4	0
Direct diagnostic tests		Nationally	Internationally
Primary Culture	Yes	82	0

TOR2: REFERENCE MATERIAL

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

No

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

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient WOA?H Member Countries	Country of recipients
B. ovis antigen (CFT)	B. ovis CFT	Produced (25 ml) and Provided	24	1	1	ITALY, SPAIN,

4. Did your laboratory produce vaccines?

No

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

Yes

Name of the new test or diagnostic method developed	Description and References (Publication, website, etc.)
Detection of antibodies against Brucella ovis in ovine serum through Complement Fixation test (CFT)	Revision of the Method: 2021
Molecular typing of Brucella spp.	Revision of the Method: 2022
Brucella: species and biovar identification	Revision of the Method: 2023
Molecular typing of Brucella spp. and Brucella vaccine strains using PCR Bruce-Ladder	Revision of the Method: 2023
Detection of Brucella spp. through real-time PCR	Revision of the Method: 2024
Detection of Brucella spp. in organic material	Revision of the Method: 2022
Identification of Brucella abortus, melitensis, ovis, suis 1-4, canis, and ceti/pinnipedialis species through real-time PCR	Revision of the Method: 2023
Molecular characterization of Brucella spp. through MLVA	Revision of the Method: 2017
NGS data analysis for Brucella spp. genotyping	Revision of the Method: 2024

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

No

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOA 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
EUOHZ Report	4 years (2021-2024)	Provision of support to EFSA and to ECDC in the production of the EU One Health Zoonoses report and in related zoonoses online interactive data visualisation dashboards and zoonoses story maps	IZSAM (lead) + different experts coming from all EU Member States	

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

Yes

Research need : 1

Please type the Research need: Research on Brucella canis and drafting of a chapter on B. canis for the Terrestrial Manual

Relevance for WOA Disease Control, Standard Setting,

Relevance for the Code or Manual Manual,

Field Epidemiology and Surveillance, Diagnostics,

Animal Category Terrestrial,

Disease:

Kind of disease (Zoonosis, Transboundary diseases) Zoonosis,

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: Chapter to be written

Notes:

Answer:

TOR6: EPIZOOLOGICAL DATA

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

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Yes

If the answer is yes, please provide details of the data collected:

Contribution to EFSA and ECDC (European Food Safety Authority and European Centre for Disease Prevention and Control).
2024. The European Union One Health 2023 Zoonoses Report. EFSA Journal. 2024; 22:e9106. <https://doi.org/10.2903/j.efsa.2024.9106>
However, B. ovis infection is not a notifiable disease in most countries, Italy included.

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:

Contribution to EFSA and ECDC (European Food Safety Authority and European Centre for Disease Prevention and Control).
2024. The European Union One Health 2023 Zoonoses Report. EFSA Journal. 2024; 22:e9106. <https://doi.org/10.2903/j.efsa.2024.9106>
However, B. ovis infection is not a notifiable disease in most countries, Italy included.

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:

0

b) International conferences:

2

1. Krasteva, I., Luciani, M., D'Onofrio, F., De Massis, F., Sacchini, F., Di Febo, T., Di Pancrazio, C., Perletta, F., Maggetti, M., Freddi, L., Djokic, V., Ferreira Vicente, A., Ponsart, C. & Tittarelli, M. Brucellin proteomic analysis for a standardized skin tests fostering Brucella infection diagnosis in animals. 23rd Human Proteome Organization World Congress. Dresden, Germany. 20-24 October, 2024; Poster
2. Krasteva Ivanka, D'Onofrio Federica, Luciani Mirella, De Massis Fabrizio, Sacchini Flavio, Marco Caporale, Di Febo Tiziana, Di Pancrazio Chiara, Perletta Fabrizia, Maggetti Marta, Ulisse Simonetta, Sonsini Luigina, Tittarelli Manuela "Comprehensive proteomic profiling of brucellin for advanced skin test diagnosis in animal brucellosis" ITPA2024 XVIII International Annual Meeting 27-29 November 2024 Rome

c) National conferences:

0

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

0

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

a) Technical visit : 0

b) Seminars : 5

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
B	ITALY	61
B	ITALY	200
B		270
C	ITALY	1
B		30
B	ITALY	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 17025	Accreditation Certificate	2027 Certificato Accredia ISO17025.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Complement Fixation test (CFT) for B. ovis	ACCREDIA (member of EA, IAF and ILAC)
Brucella spp. Isolation	ACCREDIA (member of EA, IAF and ILAC)
Brucella spp. PCR	ACCREDIA (member of EA, IAF and ILAC)
Brucella spp. Real time PCR	ACCREDIA (member of EA, IAF and ILAC)
Identification and typing	ACCREDIA (member of EA, IAF and ILAC)
PCR-RFLP	ACCREDIA (member of EA, IAF and ILAC)
PCR Bruce ladder	ACCREDIA (member of EA, IAF and ILAC)

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

Yes

We have a BSL-3 practices when handling products suspected or clinical specimens to prevent the risk of agent exposure or

dissemination.

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 during the past 2 years?

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOA?H Ref. Labs/ organising WOA?H Ref Lab
Brucella ovis serological methods PT 2024	Organizer	8 labs	ANSES France FLI Germany Fraisoro Spain INIAV Portugal Lelystad NL IZS Italy
Interlaboratory test PCR HRM for Brucella sp. Identification – Validation of the method, organized by EU-RL ANSES	Participant	EU Countries	ANSES France EU RL for Brucellosis - EU Countries

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?

Yes

Title of the project or contract	Scope	Name(s) of relevant WOA?H Reference Laboratories
ERFAN. Enhancing Research and Development in Africa through WOA?H Reference Laboratories and Collaborating Centres, and Poles of Excellence, as resultant of WOA?H twinning Projects - ERFAN	ERFAN is an WOA?H network to facilitate and strengthen collaboration among countries of the SADC Region and Arab Maghreb Union (UMA) as well as IZSAM in the Animal health and food security domains.	ERFAN is an WOA?H network to facilitate and strengthen collaboration among countries of the SADC Region and Arab Maghreb Union (UMA) as well as IZSAM in the Animal health and food security domains.
"Provision of support to EFSA and to ECDC in the production of the EU One Health Zoonoses report and in related zoonoses online interactive data visualisation dashboards and zoonoses story maps" (EUOHZ Report).	The project aims to provide support in the preparation of the joint EFSA-ECDC annual report on zoonoses in	The project aims to provide support in the preparation of the joint EFSA-ECDC annual report on zoonoses in

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Framework contract number: OC/EFSA/BIOCONTAM/2020/03. Codice interno IZSAM AFAATE1221	the European Union, Brucella Included.	the European Union, Brucella Included.
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TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOA Reference Laboratories for the same pathogen during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
11th IZSAM National and international proficiency testing for brucellosis identification in food	Organiser	4		
18th IZSAM National and international proficiency testing for brucellosis identification in animal specimens	Organiser	18		

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
Revision of the ovine epididymitis chapter of the WOA terrestrial manual	videoconferences	.

29. Additional comments regarding your report:

Yes

Please see the report of activities regarding abortus, melitensis, suis in the related report.