WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 22 février 2023 08:10

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Brucellosis (Brucella abortus, B. melitensis, B. suis)
Address of laboratory:	Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise, Via Campo Boario 64100 Teramo ITALY
Tel.:	+39 085 54308
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 WOAH 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 WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
RBT	Yes	208969	0
CFT	Yes	29008	76
I-ELISA (bovine serum)	Yes	3977	0
I-ELISA (ovine/caprine serum)	Yes	250	0
I-ELISA (porcine serum) Yes 3 0	Yes	3	0

C-ELISA (Bovine / Ovine / Caprine sera)	Yes	4022	0
C-ELISA (porcine serum)	No	3	0
Milk ELISA	Yes	38	18
Milk Ring Test	Yes	0	0
CFT RB51	Yes	929	0
SAT B. canis	No	802	10
IFAT B. canis	No	54	0
Direct diagnostic tests		Nationally	Internationally
Bacterial isolation	Yes	1106	6
Brucella identification and biotyping (animal strains)	Yes	661	0
Brucella identification and biotyping (human strains)	Yes	2	0
PCR	Yes	1427	6
Real –Time PCR	Yes	43	0
PCR-RFLP (identification)	Yes	663	0
Bruceladder	Yes	31	0
MLST	Yes	368	0
MALDI-TOF	Yes	400	0

TOR2: REFERENCE MATERIAL

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

No

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

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAH MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Rose Bengal Antigen	RBT	Produced and provided (162240 ml)	162040	200	4	Africa
Brucella CFT Antigen	CFT	Produced (0ml)	0	0	0	
Brucella RB51 Antigen	CFT	Produced and provided (5925 ml)	5925	0	0	
Brucella canis SAT Antigen	SAT	Produced and provided (380 ml)	360	20	0	

LPS Antigen from Brucella abortus s 99	Various	Produced and provided (19,8 ml)	19,8	0	0	
Negative Buffalo Serum for Brucella abortus	Negative control for all serological methods	Provided (4 ml)	4	0	0	
Negative Standard Bovine Serum for Brucella abortus	Negative control for all serological methods	Provided (326 ml)	326	0	0	
Rabbit Serum positive for Brucella canis	Positive control for all serological methods	Provided (18,5 ml)	17.5	1	1	Europe
Water Buffalo Serum Positive for Brucella abortus strain RB51	Positive control for all serological methods	Provided (45 ml)	45	0	0	
Negative Bovine Milk for B. abortus	MRT for control and ring trial	Provided (133 ml)	133	0	0	

4. Did your laboratory produce vaccines?

No

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

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
Search for antibodies to Brucella canis by slow serum agglutination in micromethod	Improvement of the Method
Search for antibodies to Brucella canis by Indirect Immunofluorescence test (IFAT)	Improvement of the Method
Search for antibodies to Brucella canis by Complement fixation test (CFT)	Improvement of the Method
Search for vaccine antibodies against Brucella abortus RB51 strain by complement fixation test (CFT)	Improvement of the Method
Search for antibodies against Brucella spp. (smooth strains) by rapid serum agglutination and complement fixation	Improvement of the Method
Production of Brucella canis antigen for SAT Revision of the Method	Revision of the Method
Brucella abortus RB51 antigen production for FDC	Revision of the Method

Search for Brucella spp. by PCR Real time	Validation of the method (Ancora et al. Development and validation of a real-time PCR assay for detection of Brucella spp. in samples of animal origin. Proocedings of Brucellosis International Research Conference 2022)

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

No

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH 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
ERFAN. Enhancing Research and Development in Africa through WOAH Reference Laboratories and Collaborating Centres, and Poles of Excellence, as resultant of WOAH twinning Projects - ERFAN	3 years	ERFAN is an WOAH 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.	WOAH CC University of Pretoria National Central Veterinary Laboratories, and some Faculties of Veterinary Science of other African countries: Angola, Mozambique, Namibia, Tanzania, Zambia and Zimbabwe	ALGERIA ANGOLA LIBYA MOROCCO MOZAMBIQUE NAMIBIA TANZANIA ZAMBIA ZIMBABWE
WOAH twinning project on Epidemiology and Risk Assessment Between IZSAM and the Department of Animal Resources Risk Assessment (KSA ARRAD) - Kingdom of Saudi Arabia.	3 years (2019-2022)	WOAH Twinning project	Department of Animal Resources Risk Assessment (KSA ARRAD) Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale"	SAUDI ARABIA
Twinning Project Strengthening the Veterinary Services and Food Safety Capacities of the Lebanese Ministry of	2 years (2018-2022)	Twinning project founded by the European Union	Lebanese Veterinary Services Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale"	FRANCE LEBANON

Agriculture - LB 15 ENI AG 03 18			France Vétérinaire International	
IDEMBRU	2.5 year (30 months, 2020-2022)	Identification of potentially emerging Brucella species: new threats for human and animals. To produce a tookit of immunological and molecular techniques to detect classical and emerging strains of Brucella spp.	ANSES (lead) + Members of the consortium of One Health EJP	BULGARIA FRANCE GERMANY PORTUGAL THE NETHERLANDS UNITED KINGDOM
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 the EU Member States	FRANCE
Twinning Project France-Italy-Tunisia "Renforcement du dispositif national d'encadrement vétérinaire de la santé animale" - TN 18 ENI AG 01 21)	3 years (2022-2025)	Twinning project founded by the European Union	Tunisian Veterinary Services Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" France Vétérinaire International	FRANCE TUNISIA
Twinning Project France-Italy-Madagascar "Appui au renforcement du dispositif de surveillance et de contrôle de la qualité et conformité sanitaire et phytosanitaire des produits agricoles et agroalimentaires à Madagascar", - MG 19 FED AG 01 21.	2 years (2022-2024)	Twinning project founded by the European Union	Malgasi Veterinary Services Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" France Vétérinaire International	FRANCE MADAGASCAR
Brucellosis 2022 International Research Conference	September 2022	On behalf of the International Brucellosis Society, the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise (IZS-Teramo) organised the "Brucellosis 2022 International Conference," including the 74th Annual Brucellosis Research Conference, held in Giulianova, Teramo, Italy from September 16th to 19th, 2022.	IZSAM (lead) + International Brucellosis Society	UNITED STATES OF AMERICA

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:
The Reference Laboratory collaborates with the WOAH CC for veterinary epidemiology, in managing and updating the Information System on animal brucellosis, taking care, in particular, of the publication of the quarterly summaries on the progress of the national plans for the eradication of bovine, buffalo, sheep and goat brucellosis in non-officially free territories. Criteria for the calculation of main epidemiological indicators have been defined in order to highlight the dissemination or persistence of infection in specific geographic areas. The quarterly summaries are produced by integrating the laboratory data with the data generated by veterinary services activities. As part of its institutional activities in collaboration with the national reference centers for brucellosis and epidemiology, the CRNB has provided technical support in the analysis and organization of the data and information necessary for the preparation of national plans for the eradication of bovine, buffalo, sheep and goats brucellosis in Italy, submitted to the European Commission for the approval of the financial contribution and the necessary changes due to the entry into force of Regulation (EU) 2016/429 (the so-called Animal Health Law - AHL).

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:
International and national research conference and seminars. See publications below

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:

5

- *De Massis F., Sacchini F., Petrini A., Bellucci F., Perilli M., Garofolo G., Savini G., Tittarelli M., 2022. Canine brucellosis due to Brucella canis: description of the disease and control measures. Veterinaria Italiana 2022, 58 (1), 5-23. https://doi.org/10.12834/VetIt.2561.16874.1*
- *Averaimo D., De Massis F., Savini G., Garofolo G., Sacchini F., Abass A., Tittarelli M., Migliorati G., Petrini A. (2022). Detection of Brucella abortus Vaccine Strain RB51 in Water Buffalo (Bubalus bubalis) Milk. Pathogens. 2022 Jun 30;11(7):748. doi: 10.3390/pathogens11070748. PMID: 35889993; PMCID: PMC9323640.*
- *Abdel-Glil, M. Y., Thomas, P., Brandt, C., Melzer, F., Subbaiyan, A., Chaudhuri, P., ... & Pletz, M. W. (2022). Core genome multilocus sequence typing scheme for improved characterization and epidemiological surveillance of pathogenic Brucella. Journal of Clinical Microbiology, 60(8), e00311-22.*
- *Angelucci, C.B.; Giacominelli-Stuffler, R.; Baffoni, M.; Di Francesco, C.E.; Di Francesco, G.; Di Renzo, L.; Tittarelli, M.; Petrella, A.; Grattarola, C.; Mazzariol, S.; Sierra, E.; Fernández, A.; Di Guardo, G. Cellular Prion Protein Expression in the Brain Tissue from Brucella ceti-Infected Striped Dolphins (Stenella coeruleoalba). Animals 2022, 12, 1304. https://doi.org/10.3390/ani12101304*
- *Book Chapter "7.3 Brucella", book "Igiene nei processi di produzione degli alimenti". Casa Editrice Hoepli (in Italian).*

b) International conferences:

21

1. Ancora M., Cammà C., Salini R., Di Federico M., Zilli K., Martino M., Pompilii C., Petrini A., Tittarelli M., De Massis F., Averaimo D. (2022) Development and validation of a real-time PCR assay for detection of Brucella spp. in samples of animal origin. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

2. Candeloro L., Savini L., Calistri P., Palma D., Ferrilli M., Conte A., De Massis F. (2022) T-Racing: a contact tracing tool for supporting epidemiological investigation during livestock disease outbreaks. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

3. Candeloro L., Savini L., Conte A., Calistri P., Dr. Perilli M., De Massis F., Telera G.C., 2022. T-Racing: a modern tool for supporting epidemiological investigation in animal disease outbreaks. Proceedings of the 16th International Symposium of Veterinary Epidemology and Economics (ISVEE), August 7-12, 2022 Halifax, Canada, 334.

4. Cicconi M., Garofolo G., Iezzi V., Marotta F., Di Timoteo F., Romantini, R., Abass. A, Di Giannatale E. , Zilli K. First analysis of antimicrobial resistance in Brucella strains isolated in Italy (2022). In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

5. De Massis F., Perletta F., Di Pancrazio C., Averaimo D., Iannetti S., Vincifori G., Guidoni G., Violini M., Giordani R., Duranti A., Gavaudan S., Sacchini F., Savini G., Migliorati G., Tittarelli M. (2022) Follow up investigation on non-infected dogs adopted from the Italian B. canis outbreak. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

6. De Massis F., Sacchini F., D'Alterio N., Ferri N., Rossi E., Befacchia G., Rodomonti D., Luciani M., Perletta F., Salini R., Tittarelli M. (2022) Antibody response elicited by Brucella abortus strain RB51 vaccine in young water buffaloes (Bubalus bubalis) using a triple dose and the WOAH vaccination schedule. A long term trial. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022,

7. De Massis F., Sacchini F., D'Alterio N., Ferri N., Rossi E., Befacchia G., Tittarelli M. (2022) Use of brucellin skin test to identify water buffaloes (Bubalus bubalis) vaccinated with the live attenuated vaccine B. abortus strain RB51. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022,

8. Gavaudan S., Moriconi M., Morandi B., Candela M., Tifi L., Marzocchi V., De Massis F., Tittarelli M., Petrini A., Averaimo D., Sacchini F., Duranti A. (2022) Clinical and laboratory surveillance of suspected infections in kennel workers in an outbreak of Brucella canis. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

9. Gobbi M., Costarelli S., Crotti S., Manuali E., D'Avino N., Spina S., Papa P., Petrini A., Rulli M., Zilli K., Romeo G., Averaimo D., 2022. Isolation of Brucella suis biovar 2 in a male roe deer (Capreolus capreolus), in central Italy. In: Proocedings of the Brucellosis International Research Conference 2022, Teramo, Italy, 16th-19th September 2022.

10. Grattarola C., Petrella A., Lucifora A., Di Francesco G., Di Nocera F., Pintore A., Cocumelli C., Terracciano G., Mignone W., Battisti A., Di Renzo L., Iaccarino D., Di Guardo G., Di Francesco C.E., Zoppi S., Dondo A., Iulini B., Varello K., Goria M., Giorda F., Mattioda V., Audino T., Lauriano G., Janowicz A., Zilli K., Tittarelli M. , Casalone C. , Garofolo G. (2022). Brucella ceti infection in cetaceans from Italian Seas: associated lesions and epidemiological data. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

11. Janowicz A., Zilli K., Ancora M., De Massis F., Tittarelli M., Tittarelli M., Cammà C., Cerrone A., Dondo A., Piraino C., Di Giannatale E., Garofolo G. (2022) Whole genome based tools in epidemiological surveillance of Brucella abortus, Brucella melitensis and Brucella suis bv2 in Italy in the last decade. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022,

12. Mazzotta E., Sacchini F., De Massis F., Tittarelli M., Brunetta R., Varotto S., Busa A., Selli L., Natale A. (2022) Brucella canis serological survey in kennel dogs in North of Italy: case reports and preliminary data. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022,

13. Mori M., Selimaj S., Vodolazkaia A., Mukovnikova M., De Massis F., Garofolo G., Nassogne M., Van der Linden D. (2022) Going chronic: about a complicated case of pediatric brucellosis being the first 'endemic' incident of human brucellosis in Belgium (2021-2022). In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022,

14. Ottaiano M., R. Brunetti, P. Calistri, A. Di Lorenzo, D. Di Sabatino, F. Cito, P. Chiodini, L. Baldi, E. De Carlo (2022) Risk factors for the persistence and spread of Brucellosis in buffaloes in the province of Caserta In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

15. Perletta F., Lolli M.G., Ancora M., Iezzi V., Di Teodoro G., Tittarelli M., Luciani M., Zilli K., Sacchini F., Garofolo G. (2022) In-vitro model of macrophages bovine cell for the characterization of pathogenic mechanisms of bovine brucellosis. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

16. Perletta F., Morri M., Averaimo D., Di Teodoro G., Zilli K., Garofolo G., De Massis F., Tittarelli M., Sacchini F. (2022) Changes of

laboratory findings in two dogs infected with Brucella canis following antibiotic treatment and orchiectomy: a case report. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

17. Romualdi T., Janowicz A., Di Marcantonio L., Foschi G., De Massis F., Tittarelli M., Conte A., Candeloro L., Garofolo G. (2022) Machine Learning for MALDI-TOF MS identification of Brucella. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

18. Sacchini F., De Massis F., D'Alterio N., Rodomonti D., Di Pancrazio C., Di Febo T., Natali,A.,Ferri,N., Rossi E., Befacchia G., Vincifori G., Iannetti S., Tittarelli M. (2022) Antibody response elicited by Brucella abortus strain RB51 vaccine in young water buffaloes (Bubalus bubalis) using a triple dose and the vaccination schedule authorised in Caserta province, Italy. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022.

19. Sacchini L., Tara Wahab , Elisabetta Di Giannatale , Katiuscia Zilli , Anna Abass , Giuliano Garofolo , Anna Janowicz (2022) Whole Genome Sequencing for Tracing Geographical Origin of Imported Cases of Human Brucellosis in Sweden. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September 2022.

20. Seminar on Brucella canis - 19 July 2022 Residential event: Kursaal venue in Giulianova (Teramo) and The event was delivered on line through the Cisco Webex Platform too.

21. Tilocca B., Soggiu A., Greco V., Bonizzi L., Urbani A., Sacchini F., Garofolo G., De Massis F., Tittarelli M., Roncada P. (2022) Brucella melitensis immunoproteomics reveal strain-specific antigens suitable for the unbiased diagnosis in a diva strategy. In: Proceedings of the Brucellosis 2022 International Research Conference. Giulianova (TE), Italy, 16-19 September, 2022

c) National conferences:

4

1. Tilocca B., Soggiu A., Greco V., Bonizzi L., Urbani A., Sacchini F., Garofolo G., Tittarelli M., Roncada P. (2022) Brucella melitensis immunoproteomics reveal strain-specific antigens suitable for the unbiased diagnosis in a diva strategy. In: 75° Convegno Nazionale SISVET 2022. Lodi (MI), Italy, 15-18 June 2022.

2. Ianiro G., Pavoni E., Aprea G., Romantini R., Alborali G.L., D'Angelantonio D., Garofolo G., Scattolini S., De Sabato L., Ostanello F., Di Bartolo I. (2022) Presence of Hepatitis E Virus in italian pig farms. In: 6th National Congress of the Italian Society for Virology. Napoli, Italy, 3-5 July, 2022,

3. Di Febo T., Di Pancrazio C., Luciani M., Rodomonti D., Laguardia C., Sonsini L., Salini R., Martucciello A., Napoletano M., Chiarenza G., Scaltrito D., Sacchini F., Tittarelli M. Diagnosi sierologica di brucellosi nel bufalo (Bubalus bubalis) mediante l'uso di ELISA competitiva. SiDiLV 7-9 settembre 2022, Ischia, Italia

4. Krasteva I., Luciani M., Di Febo T., Perletta F., Sonsini L., De Massis F., Sacchini F., Tittarelli M., (2022). "Analisi proteomica e bioinformatica di proteine di Brucella canis". Atti del XXI Congresso Nazionale S.I.Di.L.V, 7-9 settembre 2022

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

0

(Provide website address or link to appropriate information)

www.izs.it

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 : 1

b) Seminars : 9

c) Hands-on training courses: 4

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	Italy, Spain	2
b	Iraq, Mexico, Germany, Ukraine, Costa Rica, Italy, Sweden, United States of America, France, United Kingdom, Georgia, Belgium, Israel, Costa Rica, Finlandia, Tanzania, Spain, Austria, Tunisia, Georgia, Portugal, France, Ethiopia, Argentina, Mexico, Brasil, Iran, Senegal, Sudan, Turkey, Switzerland, Zimbabwe, Norway, Ukraine Vietnam, Republic of Korea, Japan, South Africa, Algeria, Namibia, Mozambique, Hungary, Venezuela, Azerbaijan, Zambia, Kazakhstan, Canada Ethiopia	270
b	Italy, United Kingdom,	50
b	France	1
b	France	3
b	Africa	45
b	Africa	25
b	Asian Countries	180
b	Zambia, Zimbabwe, Mozambique, Tanzania, Namibia, Botwana, Senegal, Tunisia, Mauritania, Sudan, South Africa	40
c	Italy	35
c	France	2
c	Italy	10 (module III) 14 (module IV)

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		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)	ACCREDIA (member of EA, IAF and ILAC)
RBT	ACCREDIA (member of EA, IAF and ILAC)
I-ELISA (milk and serum)	ACCREDIA (member of EA, IAF and ILAC)
FPA	ACCREDIA (member of EA, IAF and ILAC)
CFT - RB51	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. Isolation from food matrix ACCREDIA (member of EA, IAF and ILAC)	ACCREDIA (member of EA, IAF and ILAC)
Identification and typing	ACCREDIA (member of EA, IAF and ILAC)

c-ELISA	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

.

TOR9: SCIENTIFIC MEETINGS

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

No

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

No

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

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

Yes

24. Are you a member of a network of WOAH Reference Laboratories designated for the same pathogen?

Not applicable (Only WOAH Reference Laboratory designated for the disease)

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

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOAH REF. LABS/ ORGANISING WOAH REF. LAB.
EU Bovine Brucellosis Serum Proficiency Test 2022 organised by EU-RL ANSES. ILPT Brucellosis milk serum iELISA 2022.	Participant	27 EU Countries	ANSES France EU RL for Brucellosis

26. Did your laboratory collaborate with other WOAH 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 WOAH REFERENCE LABORATORIES
IDEMBRU	IDEMBRU Capacity building for atypical Brucella WOAH Reference Labpratories for Brucellosis: ANSES Scientific coordinator, FLI Germany , APHA UK, IZSAM, LNIAV.	WOAH Reference Labpratories for Brucellosis: ANSES Scientific coordinator, FLI Germany , APHA UK, IZSAM, LNIAV.
ERFAN. Enhancing Research and Development in Africa through WOAH Reference Laboratories and Collaborating	3 years	ERFAN is an WOAH network to facilitate and strengthen collaboration among countries of the SADC Region

Centres, and Poles of Excellence, as resultant of WOAH twinning Projects - ERFAN		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). Framework contract number: OC/EFSA/BIOCONTAM/2020/03. Codice interno IZSAM AFAATE1221 4 years The project aims to provide support in the preparation of the joint EFSA-ECDC annual report on zoonoses in the European Union, Brucella Included.	4 years	The project aims to provide support in the preparation of the joint EFSA-ECDC annual report on zoonoses in the European Union, Brucella Included.

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

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

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Region(s) of participating WOAH Member Countries
22th IZSAM National and international brucellosis serology proficiency testing and PT for validation fo antigens for RBT and CFT	Organiser	4	America Europe
9th IZSAM National and international proficiency testing for brucellosis identification in food	Organiser	9	
16th IZSAM National and international proficiency testing for brucellosis identification in animal specimens	Organiser	20	
1st IZSAM National and international proficiency testing for canine brucellosis	Organiser	20	
3rd IZSAM National and international serology proficiency for RB51 by RB-51 CFT	Organiser	4	Europe
FAO International brucellosis serology proficiency testing	Organiser	8	Africa

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)

Revision of the brucellosis chapter of the terrestrial manual	Several videoconferences	brucellosis chapter of the terrestrial manual

29. Additional comments regarding your report:

Yes

– Organiser, Chairman, components of the National e International Scientific Commitee of the Brucellosis 2022 International Research Conference, Giulianova – Teramo, Italy 16 – 19 settembre 2022
- Organised by EU; Chairmanship of the Task force on monitoring animal disease eradication programmes in Member States– Brucellosis subgroup.
- Organised by EFSA; Participation to the Animal Health and Welfare Network 27-28 June 2022 (F. De Massis)
- Organised by EFSA; Participation to the Task Force on Zoonosis Data Collection;
- Organised by EFSA; Participation to the Working group on Zoonosis SINZOO;
- Organised by EFSA; Participation to the Zoonosis Monitoring Network;
- Organised by WOAH ERFAN Project: Online Meetings of the ERFAN Brucellosis Working Groups
- Organised by EURL for Brucellosis: Expert Meetings of the EU Brucellosis National Reference Laboratories online
- Organised by EURL for Brucellosis: IDEMBRU Online meetings
– (EFSA) – Partecipation to the EREN Meeting – 11 and 12 May 2022 (F. De Massis)
– (EFSA) Participation as an expert in the working group for the preparation of the European One Helth Zoonoses Report (EUOHZ) – chapter brucellosis. VDC on 16 June 2022 (F. De Massis)
– EURL BRUCELLOSIS - Expert Meeting Agenda - Animal Health Law, Various VDC, 12 January 2022, 16 February 2022, 7 April 2022, 17 May 2022, 1 July 2022
– One Health EJP COHESIVE + IDEMBRU Projects Working group: Controlling the spread of Brucella canis in Europe – White paper on Brucella canis VDC 18 March 2022, 10 June 2022, 11 July 2022 (F. De Massis)
– EURL Validation methods for Water Buffalo VDC 3 March 2022
– One Health EJP COHESIVE + IDEMBRU Projects Working group: Controlling the spread of Brucella canis in Europe. (F. De Massis)
– ERFAN working groups meeting on Brucellosis (Giulianova, 15/09/2022)