

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 24 avril 2024 12:39

Laboratory Information

Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory:	Leishmaniosis
Address of laboratory:	Istituto Zooprofilattico Sperimentale della Sicilia (IZSSI), National Reference Centre for Leishmaniosis (C.Re.Na.L.), via Gino Marinuzzi 3, 90129, Palermo
Tel.:	39-091 656.53.68
E-mail address:	fabrizio.vitale@izssicilia.it
Website:	https://crenal.izssicilia.it/
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Salvatore Seminara, Official Manager
Name (including Title and Position) of WOAHO Reference Expert:	Dr. Fabrizio Vitale, Molecular Biology Dept. Director, National Reference Center for Leishmaniosis (C.Re.Na.L.).
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 WOAHO Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
Immunofluorescence Test (IFAT)		4405	483
Elisa Test		0	60
Direct diagnostic tests			
Leishmania culture		354	0
Real Time PCR		1284	0

TOR2: REFERENCE MATERIAL

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

No

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

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAHO MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
positive dog control serum	IFAT	PRODUCED	70.32 ml	0.54 ml	5	GREECE, ITALY, NORTH MACEDONIA (REP. OF), SOUTH AFRICA, SPAIN,
Negative dog control						GREECE, ITALY, NORTH

serum	IFAT	PRODUCED	70.32 ml	0.54 ml	5	MACEDONIA (REP. OF), SOUTH AFRICA, SPAIN,
positive dog control serum	ELISA	PRODUCED	0	6.75	2	ITALY, SPAIN,
NEGATIVE dog control serum	ELISA	PRODUCED	0	6.75	2	ITALY, SPAIN,
Slide antigens KIT	IFAT	PRODUCED	2344	18	5	GREECE, ITALY, NORTH MACEDONIA (REP. OF), SOUTH AFRICA, SPAIN,
immunofluorescent dog conjugate	IFAT	PROVIDE	93 ml	1 ml	5	GREECE, ITALY, NORTH MACEDONIA (REP. OF), SOUTH AFRICA, SPAIN,
positive cat control serum	IFAT	PRODUCED	4.02 ml	0	1	ITALY,
negative cat control serum	IFAT	PRODUCED	4.02 ml	0	1	ITALY,
immunofluorescent cat conjugate	IFAT	PROVIDE	5.36 ml	0	1	ITALY,
Leishmania infantum DNA	Real time pcr	PRODUCED	0,65 ml	0	1	ITALY,
Real time Reagent probe	Real time pcr	PROVIDE	0,1 ml	0	1	ITALY,
Real time Reagent primers	Real time pcr	PROVIDE	0,16 ml	0	1	ITALY,
Leishmania culture	culture	PRODUCED	14 ml	0	1	ITALY,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHA Members?

Not applicable

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.)
PCR REAL TIME	Castelli G, Bruno F, Reale S, Catanzaro S, Valenza V, Vitale F. Molecular Diagnosis of Leishmaniasis: Quantification of Parasite Load by a Real-Time PCR Assay with High Sensitivity. Pathogens. 2021 Jul 9;10(7):865. doi: 10.3390/pathogens10070865. PMID: 34358015; PMCID: PMC8308825

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
NORTH MACEDONIA (REP. OF)	2023-01-31	IFAT	30	30
SPAIN	2023-02-07	IFAT	30	30
SPAIN	2023-02-07	IFAT	30	30

GREECE	2023-05-09	IFAT	30	30
GREECE	2023-09-26	IFAT	30	30
SOUTH AFRICA	2023-09-26	IFAT	30	30

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

Yes

NAME OF THE WOA MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
SPAIN	Quality assurance	IFAT Proficiency test and Reference Material
SPAIN	Quality assurance	IFAT Proficiency test and Reference Material
GREECE	Quality assurance	IFAT Proficiency test and Reference Material
GREECE	Quality assurance	IFAT Proficiency test and Reference Material
SOUTH AFRICA	Quality assurance	IFAT Proficiency test and Reference Material
ITALY	Quality assurance	IFAT Proficiency test and Reference Material
BELGIUM	Quality assurance	remote Leishmania ELISA technical opinion request
ITALY	Quality assurance	remote molecular Leishmania technical opinion request

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

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

Yes

Research need : 1

Please type the Research need: In section 3.1.11 on Leishmania in the WOA manual, it would be appropriate to include the Cat diagnostic algorithm

Relevance for WOA Disease Control,

Relevance for the Codes or Manual Manual,

Field Diagnostics,

Animal Category Terrestrial,

Disease:

Leishmaniosis

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: 3.1.11 on Leishmania

Notes:

Answer: In section 3.1.11 on Leishmania in the WOA manual, it would be appropriate to include the Cat diagnostic algorithm

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:

national epizootiological report 2023 provided to the ministry of health of italy

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:

November 2023

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:

3

10.1016/j.actatropica.2023.107037, 10.1186/s13071-023-05878-y, 10.3390/pathogens12111351, 10.3390/vetsci10040252

b) International conferences:

3

CONVEGNO ISWAVLD 2023 - 29 June - 1 July 2023 - Lyon, France

P-79 - New phytotherapeutic approaches in the treatment of canine leishmaniasis: leishmanicidal and immunomodulatory activity of phytocomplexes in in vitro models of *Leishmania infantum*

XII European Congress of Entomology (ECE 2023), in Heraklion, Crete, on 16-20 October 2023

OC270. Climate change and adaptations: presence and trophism of sandflies on winter in Sicily

"BVD's One Health perspective: focus on Leishmaniasis" che si è tenuto giorno 04 Maggio 2023 on line "Awareness-raising workshop on Vector Borne Diseases. One Health perspective" nella sezione

One Health drugs against parasitic vector borne diseases in Europe and beyond OneHealthdrugs

Cost Action CA21111

c) National conferences:

3

CONVEGNO: 76° Convegno SISVET Bari, 21-23 giugno 2023

Titolo: IN VITRO EVALUATION OF COMPATIBILITY OF FELINE TYPE-B BLOOD WITH CANINE AND FELINE BLOOD OF DIFFERENT BLOOD TYPE

"«LA LEISHMANIOSI IN OTTICA ONE-HEALTH»" organizzato dalla regione Emilia Romagna che si è tenuto presso la Sala XX maggio - Terza Torre, sede della regione Emilia Romagna - BOLOGNA, Viale della Fiera, 8 il 23 maggio 2023.

"LEISHMANIOSI ANIMALE E UMANA ESEMPIO DI ONE HEALTH - IL CONTROLLO ENTOMOLOGICO DEI VETTORI AMBIENTALI ED I PIANI DI SORVEGLIANZA SANITARIA" che si è tenuto il 16-17 maggio 2023 presso l' Istituto Zooprofilattico Sperimentale Sicilia, nella sezione di Catania;

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 WOA H Members?

Yes

a) Technical visit : 1

b) Seminars : 0

c) Hands-on training courses: 4

d) Internships (>1 month) 7

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	1
C	ITALY	1

D	ITALY	1
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TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
UNI CEI EN ISO/IEC 17025 2018	PDF	Certificato di Accreditamento n. 0246L.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
IFAT TEST	IFAT TEST
REAL TIME PCR	REAL TIME PCR
LEISHMANIA ISOLATION	LEISHMANIA ISOLATION

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

Yes

See Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, Chapter 1.1.4

TOR9: SCIENTIFIC MEETINGS

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

No

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

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
"BVD's One Health perspective: focus on Leishmaniosis"	2023-05-01	On line	SPEAKER	"Awareness-raising workshop on Vector Borne Diseases. One Health perspective"

TOR10: NETWORK WITH WOAHP REFERENCE LABORATORIES

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

Not applicable (only WOAHP Reference Laboratory designated for the disease)

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

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

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

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

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

Not applicable (Only WOAHP 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 WOAHP 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	WOAHP Member Countries

IFAT	ORGANIZER	9	IFAT test for the leishmaniasis diagnosis	GREECE, ITALY, NORTH MACEDONIA (REP. OF), SOUTH AFRICA, SPAIN,
ELISA	ORGANIZER	1	ELISA Test for the leishmaniasis diagnosis	SPAIN,
REAL TIME PCR	ORGANIZER	3	Real time pcr test for Leishmania diagnosis	ITALY,

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Leishmania diagnosis	Belgium	Lilo Vanstallen, Federaal Agentschap voor de Veiligheid van de Voedselketen, Directoraat Generaal Laboratoria, Externe Laboratoria, AC – Kruidtuin, Food Safety Center, Kruidtuinlaan 55, 1000 Brussel
Leishmania technical opinion request	Italy	Dr Trentina Di Muccio Istituto Superiore di Sanità Viale Regina Elena 299, 00161 Roma, Italia
Leishmania diagnosis	Belgium	Mieke Verschate Medisch Labo Bruyland
Development of regional surveillance plan for leishmania	Italy	sicily region health department
Leishmania diagnosis	Belgium	sicily region health department Ghislain Desnoeck - Kirsten De Buyser – Jolien Ingelbeen Dierenartsenpraktijk Desnoeck Oppuursdorp 64B 2890 Puurs-Sint-Amands

29. Additional comments regarding your report:

No