OIE Reference Laboratory Reports Activities

Activities in 2018

This report has been submitted : 2019-01-08 09:01:58

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Trichinellosis
Address of laboratory:	Viale Regina Elena 299 00161 Rome ITALY
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Website:	https://trichinella.iss.it
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Maria Angeles Gomez Morales
Name (including Title and Position) of OIE Reference Expert:	Dr. Maria Angeles Gomez Morales Senior Researcher
Which of the following defines your laboratory? Check all that apply:	Governmental

ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

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 OIE Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
ELISA for pigs	yes	366	66
ELISA for humans	no	27	3
Western blot for pigs	no	1	36
Western blot for humans	no	6	5
Direct diagnostic tests		Nationally	Internationally
Artificial muscle digestion	yes	2	0
Multiplex PCR	no	40	492

ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards.
To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.

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

No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents to OIE Member Countries?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient OIE Member Countries	Region of recipients
Excretory/Secretory antigens	ELISA Western blot	Produced	0.0	1 mg	2	☐Africa ☒Americas ☐Asia and Pacific ☒Europe ☐Middle East
Positive reference pig sera	ELISA Western blot	Produced	0.0	4 mL	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
Negative reference pig serum	ELISA Western blot	Produced	0.0	1 mL	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
Mouse carcass infected with Trichinella species	PCR Training	Produced	6 carcasses	5 carcasses	5	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
Larve T. spiralis in formaline	Artificial digestion	Produced	0	10,000	1	☐Africa ☐Americas ☒Asia and Pacific ☐Europe ☐Middle East

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

No

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

Yes

Name of OIE Member Country seeking assistance	Date (month)	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
CHINA (PEOPLE'S REP. OF)	02/18	0	13
CZECH REPUBLIC	03/18	4	0
CZECH REPUBLIC	07/18	1	0
DENMARK	08/18	0	2
DENMARK	12/18	15	0
FINLAND	06/18	206	0
FRANCE	08/18	4	0
GREECE	02/18	4	0
UNITED KINGDOM	10/18	1	0
LATVIA	10/18	0	4
LATVIA	12/18	0	1
THE NETHERLANDS	03/18	0	10
CZECH REPUBLIC	01/18	1	0
CZECH REPUBLIC	02/18	2	0
PORTUGAL	01/18	3	0
PORTUGAL	03/18	2	0
SERBIA	02/18	54	0
SPAIN	02/18	126	0
SPAIN	03/18	6	0
SPAIN	04/18	10	0
SPAIN	05/18	78	0
SPAIN	09/18	5	0
SPAIN	10/18	1	0
SPAIN	12/18	4	0
SWEDEN	01/18	7	0
SWEDEN	05/18	1	0

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
IRELAND	Artificial digestion	by email
FRANCE	Myocastor coypus and Trichinella infection	by email
ROMANIA	Artificial digestion	by email
SPAIN	Artificial digestion	by phone and email

ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	OIE Member Countries involved other than your country
Microsatellite analysis of Trichinella britovi	2 years	Analysis of the genetic structure of T. britovi isolates of Latvia	Daugavpils University	LATVIA
Microsatellite analysis of Trichinella britovi	2 years	T. britovi isolates of Estonia	Institute of Veterinary Medicine and Animal Science, Estonian University of Life Sciences	ESTONIA

ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases

11. Did your Laboratory collect epizootiological data relevant to international disease control?

Yes

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

Yes

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

a) Articles published in peer-reviewed journals: 7
Bruschi F, Gómez-Morales MA, Hill D. International Commission on Trichinellosis: Recommendations on the use of serological tests for the detection of Trichinella infection in animals and humans.Journal: Food and Waterborne Parasitology, In Press

Gómez-Morales MA, Ludovisi A, Amati A, Cherchi S, Tonanzi D, Pozio E. Differentiation of Trichinella species (Trichinella spiralis/Trichinella britovi versus Trichinella pseudospiralis) using western blotting . Parasites & Vectors, In Press

Oksanen A., Interisano I., Isomurso M., Hakkinen P., Tonanzi D., Oivanen L., Pozio E., 2018. Trichinella spiralis prevalence among wildlife of a boreal region rapidly reduced in the absence of spillover from the domestic cycle. Vet Parasitol. 262:1-5.

La Rosa G, Vallée I, Marucci G, Casabianca F, Bandino E, Galati F, Boireau P, Pozio E., 2018. Multilocus genotype analysis outlines distinct histories for Trichinella britovi in the neighboring Mediterranean islands of Corsica and Sardinia. Parasit Vectors11:353.

Shamsian A, Pozio E, Fata A, Navi Z, Moghaddas E., 2018. The Golden jackal (Canis aureus) as an indicator animal for Trichinella britovi in Iran. Parasite. 25:28.

Chaparro-Gutiérrez JJ, Pozio E, Gómez-Morales MA, López A, Mejia J, Zambrano C, Piedrahita D, Villar D., 2018. A preliminary survey of Trichinella spp. in pigs raised under controlled housing conditions in Colombia: 2014-2016. Parasite. 25:18.

La Rosa G, Calero-Bernal R, Pérez-Martín JE, Tonanzi D, Galati F, Serrano-Aguilera FJ, Rosenthal BM, Pozio E., 2018. Rare but evolutionarily consequential outcrossing in a highly inbred zoonotic parasite. Int J Parasitol. 48:543-553.

b) International conferences: 2
COST Action EURO-FBP (FA1408), Meeting on Surveillance systems and Notification", Bilthoven,The Netherlands, 23-24 January, 2018

XIII Workshop of "National Reference Laboratories for Parasites", Istituto Superiore di Sanità, Roma, Italy, 23-24 May, 2018

c) National conferences: 2
XXIII Meeting of Spanish Association of Laboratory Veterinarians (AVEDILA), Granada,Spain, 15-16 November, 2018

Meeting on "Guidelines for game", organized bythe Italian Ministrery of Health, Florence, Italy, 27 October, 2018

d) Other:
(Provide website address or link to appropriate information) 2
https://eurlp.iss.it

https://trichinella.iss.it

ToR 7: To provide scientific and technical training for personnel from OIE Member

Countries
To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

Yes

a) Technical visits: 0
b) Seminars: 0
c) Hands-on training courses: 8
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
c	Colombia	1
c	Romania	1
c	Iceland	1
c	Portugal	1
c	United Kingdon	1
c	Czech Republic	1
c	Lithuania	1
c	Norway	1

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System certified according to an International Standard?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
17025	cerificato accreditamento 17025_2018.pdf
17043	certificato accreditamento 17043_2022.pdf

16. Is your laboratory accredited by an international accreditation body?

Yes

Test for which your laboratory is accredited	Accreditation body
Detection of anti-Trichinella antibodies in swine serum by indirect ELISA	ACCREDIA
Identification of Trichinella muscle larvae at species level by Multiplex PCR	ACCREDIA
Detection of anti-Trichinella antibodies in human serum by indirect ELISA	ACCREDIA
Detection of anti-Trichinella antibodies in swine serum by Western Blot	ACCREDIA
Proficiency Testing on the digestion method to detect Trichinella larvae	ACCREDIA
Proficiency Testing on the identification of Trichinella larvae at the species level	ACCREDIA

17. 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)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

No

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

No

ToR 10: To establish and maintain a network with other OIE Reference Laboratories designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results

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

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

Yes

Purpose of the proficiency tests: [1]	Role of your Reference Laboratory (organiser/ participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
The inclusion of six serum samples in the List of OIE-approved International Reference Standards	Organiser and Participant	2	entre for Food-borne and Animal Parasitology, Food Inspection Agency (Canada)

[1] *validation of a diagnostic protocol: specify the test; quality control of vaccines: specify the vaccine type, etc.*

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

No

ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

Yes

Note: See Interlaboratory test comparisons in: Laboratory Proficiency Testing at: http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing see point 1.3

Purpose for inter-laboratory test comparisons[1]	No. participating laboratories	Region(s) of participating OIE Member Countries
Proficiency Testing on the digestion method to detect Trichinella larvae in meat	106	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
Proficiency testing on Trichinella spp. larva identification at the species level by a molecular method	22	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East

ToR 12: To place expert consultants at the disposal of the OIE

24. Did your laboratory place expert consultants at the disposal of the OIE?

No

25. Additional comments regarding your report: