

WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 25 avril 2023 16:48

Laboratory Information

| | |
|--------------------------------------------------------------------------------------|-----------------------------|
| Name of disease (or topic) for which you are a designated WOAH Reference Laboratory: | Scrapie |
| Address of laboratory: | Via Bologna 148 Turin Italy |
| Tel.: | 0039-011-2686296 |
| E-mail address: | cristina.casalone@izsto.it |
| Website: | www.izspltv.it |
| Name (including Title) of Head of Laboratory (Responsible Official): | Cristina Casalone |
| Name (including Title and Position) of WOAH Reference Expert: | Cristina Casalone |
| 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 WOAH Manual (Yes/No) | Total number of test performed last year | |
|--------------------------------------------|-----------------------------------|------------------------------------------|-----------------|
| Indirect diagnostic tests | | Nationally | Internationally |
| none | none | none | none |
| Direct diagnostic tests | | Nationally | Internationally |
| HERDCHEK BSE/SCRAPIE ANTIGEN KIT EIA IDEXX | yes | 6662 | none |

| | | | |
|-----------------------------------------------------|-----|------|------|
| Immunohistochemistry for pathological prion protein | yes | 195 | none |
| Histology | yes | 195 | none |
| Scrapie confirmatory immunoblot | yes | 251 | none |
| PrP genotyping | yes | 3450 | none |

TOR2: REFERENCE MATERIAL

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?

No

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?

No

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?

Yes

| NAME OF WOA?H 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 |
|-------------------------------------------------|------------|----------------------------|----------------------------------------------------------|--------------------------------------------------------------|
| CROATIA | 2022-03-03 | WBscrapie | | 1 |

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

Yes

| NAME OF THE WOA?H MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY | PURPOSE | HOW THE ADVICE WAS PROVIDED |
|--------------------------------------------------------------------|---------|-----------------------------|
| | | |

| | | |
|-----------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| AUSTRIA | Technical support on the immunohistochemistry diagnosis of scrapie cases | Continuous exchange of technical information via e-mail and sending of new slides and protocol |
| ESTONIA | Technical support on the immunohistochemistry diagnosis of scrapie cases | Continuous exchange of technical information via e-mail and sending of new slides |
| LATVIA | Technical support on the immunohistochemistry diagnosis of scrapie cases | Continuous exchange of technical information via e-mail and sending of new slides |
| IRELAND | Technical support on the immunohistochemistry diagnosis of scrapie cases | Continuous exchange of technical information via e-mail and sending of new slides |
| LITHUANIA | Technical support on the immunohistochemistry diagnosis of scrapie cases | Continuous exchange of technical information via e-mail and sending of new slides |

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOA H 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 |
|---------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------|
| Enhancing Research for Africa Network | 36 months | The main task of the ERFAN network aims at enhancing research collaborations and to push forward the activities of veterinary Institutions | 5 Italians IIZZSS | ALGERIA BOTSWANA LIBYA MOROCCO MOZAMBIQUE SOUTH AFRICA SUDAN TUNISIA ZAMBIA ZIMBABWE |

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:

We participated to the writing of "The European Union Summary Report on surveillance for the presence of Transmissible Spongiform Encephalopathies (TSEs) in 2021

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:

Through a collaboration with EFSA in the frame of the drafting of "The European Union Summary Report on

surveillance for the presence of Transmissible Spongiform Encephalopathies (TSEs) in 2021

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:

1

"Are rapid tests and confirmatory western blot used for cattle and small ruminants TSEs reliable tools for the diagnosis of Chronic Wasting Disease in Europe?" M. Mazza, L. Tran; D. Loprevite, M. C. Cavarretta, L. Dell'Atti, J. Våge, K. Madslie, T.T. Vuong; E. Bozzetta, S.L. Benestad. Submitted to PLOS ONE.

b) International conferences:

5

- International Conference Prion2020/2022, Göttingen 13-16 september 2022
- II Workshop EVIIta, Torino 29-30 september 2022
- 19th Annual meeting of the TSE EURL Torino 17-18 october 2022
- 10° Iberian congress on PRIONS - Vila Real Portogallo 19-20 may 2022
- EFSA - BSE/TSE Network meeting - Parma, 13-14 october 2022

c) National conferences:

3

- XXI Convegno degli Istituti Zooprofilattici Sperimentali sulle Encefalopatie Spongiformi Trasmissibili Torino 27 January 2022
- 75° Convegno SISVET - Lodi (MI) 15-18 June 2022
- XXI Congresso nazionale SIDILV 2022 - Ischia 7-9 september 2022

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

17

Scientific committees and working groups attended by staff:

- TSE WG on 14 June: connexion and updated documents gruppo TSE per CEA e EURL 2021
- Working group TSE "Moduli eLearning per BTSF Academy" 2022
- Working group coordinated by the Ministry of Health for the management of sheep breeds at risk of extinction with genetic selection
- 17th meeting of the Scientific Network EFSA on BSE/TSE, Parma 13-14/10/2022.
- 2nd meeting of the Scientific Network for Zoonoses Monitoring Data - TSE-BSE Subgroup

Formation course organized:

- ERFAN Interactive training course "BSE and Scrapie confirmatory tests by Histopathology, Immunohistochemistry, and differential diagnosis" for the University of Veterinary Pretoria - 3 february 2022 online
- The Italian TSE diagnostic network: updates, problems and future prospects. IX riunione Nazionale 30 march 2022 online.
- XXI Convegno degli Istituti Zooprofilattici Sperimentali sulle Encefalopatie Spongiformi Trasmissibili- Torino, 27 January 2022
- Management and control of transmissible spongiform encephalopathies (TSEs): epidemiological, diagnostic and regulatory updates. Torino, 27-28 september 2022

Speakers in international conference:

- 19th Meeting EURL TSE (Torino 17th and 18th October 2022) "TSE EURL histopathology and immunoistochemistry interpretation EQA".
- ERFAN Interactive training course (3 febbraio 2022 online) "BSE and Scrapie confirmatory tests by Histopathology, Immunohistochemistry, and differential diagnosis" for the University of Veterinary Pretoria
- 19th Meeting EURL TSE (17th and 18th October 2022) "EURL TSE Work programme 2021-2022: what done, what to do"
- 19th Meeting EURL TSE (17th and 18th October 2022) "Rapid test EQA (RB & RS): results of the 2021 round and forthcoming 2022 round"
- 19th Meeting EURL TSE (17th and 18th October 2022) "Rapid and confirmatory tests: issues and news"
- 19th Meeting EURL TSE (17th and 18th October 2022) "Confirmatory immunoblotting (WB & WS): results of the 2021 round and forthcoming 2022 round"
- 19th Meeting EURL TSE (17th and 18th October 2022) "Prion Biosafety: the TSE EURL approach"
- "Epidemiology of BSE", Course STRATEGIES TO IMPROVE SAFETY OF FOODS OF ANIMAL ORIGIN WITHIN CIRCULAR AGRICULTURAL SYSTEM, della Laurea Magistrale in Food animal metabolism and management in the circular economy (cod. 5814), Università di Bologna

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 :

b) Seminars : 1

c) Hands-on training courses: 1

d) Internships (>1 month) 1

| 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 online | Croatia | 2 |
| d | Tunisia | 1 |
| b online | Pretoria | 20 |

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 | pdf | 2023 - 2026 ACCREDIA - CERTIFICATO DI ACCREDITAMENTO.pdf |

19. Is your quality management system accredited?

Yes

| Test for which your laboratory is accredited | Accreditation body |
|-----------------------------------------------------|--------------------|
| HERDCHEK BSE/SCRAPIE ANTIGEN KIT TEST EIA IDEXX | ACCREDIA-ILAC MRA |
| Scrapie confirmatory immunoblot | ACCREDIA-ILAC MRA |
| Immunohistochemistry for pathological prion protein | ACCREDIA-ILAC MRA |
| Histology | ACCREDIA-ILAC MRA |
| PrP Genotyping | ACCREDIA-ILAC MRA |

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

Yes

Biosafety guidelines have been produced for personnel working within laboratories that handle prions

TOR9: SCIENTIFIC MEETINGS

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

No

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

Yes

| Title of event | Date (mm/yy) | Location | Role (speaker, presenting poster, short communications) | Title of the work presented |
|-----------------------------|--------------|----------|---------------------------------------------------------|-----------------------------------------------|
| TSE-WG MEETING North Africa | 2022-01-17 | online | working group coordinator | Past activities and Road map 2022 |
| TSE-WG MEETING South Africa | 2022-01-28 | online | working group coordinator | Past activities and Road map 2022 |
| EURL TSE Meeting | 2022-10-17 | Turin | Speakers | Feedback on the Proficiency Testing EQA round |
| EURL TSE Meeting | 2022-10-18 | Turin | Speakers | Feedback on the Proficiency Testing EQA round |

TOR10: NETWORK WITH WOA REFERENCE LABORATORIES

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

Yes

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

No

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

Yes

| PURPOSE OF THE PROFICIENCY TESTS: 1 | ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT) | NO. PARTICIPANTS | PARTICIPATING WOA REF. LABS/ ORGANISING WOA REF. LAB. |
|----------------------------------------------------------------|------------------------------------------------------------|------------------|-------------------------------------------------------|
| Scrapie Confirmatory Immunoblot | Participant | 24 | NRLs |
| TSE Histopathology and immunohistochemistry interpretation EQA | Participant | 43 | NRLs |
| PrP immunohistochemistry technical EQA | Participant | 22 | NRLs |
| Scrapie screening rapid test | Participant | 28 | NRLs |

26. Did your laboratory collaborate with other WOA 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 WOAH Reference Laboratories for the same pathogen?

Yes

| Purpose for inter-laboratory test comparisons ¹ | Role of your reference laboratory (organizer/participant) | No. participating laboratories | Region(s) of participating WOAH Member Countries |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------|--------------------------------------------------|
| Harmonising existing test methods (IDEXX HerdCheck BSE-scrapie Antigen Kit EIA for Italian network laboratory) | Organizer | 11 | Europe |

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

Yes

Our OIE Centre for BSE and scrapie collaborates with EURL TSE as part of the same Institution and also all staff, including myself, works for both centres. From 2019 we have been providing diagnostic advice to European Nrls. From three years we have been working closely with countries in North Africa and South Africa