

# OIE Reference Laboratory Reports Activities

## *Activities in 2020*

**This report has been submitted : 2021-01-20 09:32:29**

<b>Name of disease (or topic) for which you are a designated OIE Reference Laboratory:</b>	Bovine spongiform encephalopathy
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<b>Name (including Title) of Head of Laboratory (Responsible Official):</b>	Cristina Casalone
<b>Name (including Title and Position) of OIE Reference Expert:</b>	Cristina Casalone
<b>Which of the following defines your laboratory? Check all that apply:</b>	Governmental Other: Research

**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	
		Nationally	Internationally
Indirect diagnostic tests			
none	none	none	none
Direct diagnostic tests			
IDEXX BSE-scrapie Antigen kit EIA	Yes	7038	none
Immunohistochemistry for pathological prion protein	Yes	4	none
Histology	Yes	4	none
BSE confirmatory immunoblotting	Yes	16	none

**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?

No

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
TUNISIA	03/2020	1 camel	1 camel
ALGERIA	03/2020	3 camels	3 camels

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
SWITZERLAND	Technical support on the immunohistochemistry diagnosis of BSE cases	Continuous exchange of technical information via e-mail and sending of new slides

**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
Enhancing Research for Africa Network	24 months	The main task of the ERFAN network aims at enhancing research collaborations and to push forward the activities of veterinary Institutions	5 Italians IZZSS	BOTSWANA MOZAMBIQUE SOUTH AFRICA ZAMBIA ZIMBABWE

**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

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 (TSE) in 2019"

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

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 (TSE) in 2019"

**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: 0

b) International conferences: 2

-19th Annual Meeting of the TSE EURL - Torino, 14-16 September 2020 web-meeting

-15th meeting of the Network on EFSA BSE-TSE 7-8 October 2020, web-meeting

c) National conferences: 2

- 2° Workshop of the Italian framework IIZZSS on the biobank - Brescia, 07/02/2020

- ExoView: la fenotipizzazione di Vescicole Extracellulari a supporto della biopsia liquida. Webinar 19/05/2020.

d) Other:

(Provide website address or link to appropriate information) 11

Partecipazione as speaker:

- 19th Annual Meeting of the TSE EURL - Torino, 14-16 September 2020 web-meeting

- Enhancing scientific cooperation between SADAC Region and Italy through the networking activities Webinar, 7-14-21-28 October 2020, 4 November 2020.

- Enhancing scientific cooperation between North Africa and Italy through the networking activities Web-meeting, 22 July 2020

- Enhancing scientific cooperation between SADAC Region and Italy through the networking activities. Web-meeting, 4 August 2020.

- VIII Riunione gruppo di lavoro "Diagnosi TSE - Uniformazione attività di Sorveglianza" - Torino, 18 November 2020 web-meeting

Working group

- Enhancing Research for Africa Network (ERFAN) - SADC Region (Zambia, Zimbabwe, Mozambico, Sudafrica, Botswana)

- Enhancing Research for Africa Network (ERFAN) - North Africa (Algeria, Marocco, Tunisia, Libia)

- Revision of OIE Terrestrial Manual, ninth edition: Chapter on bovine spongiform encephalopathy

- Request for a scientific opinion on potential BSE risk posed by the use of ruminant collagen and gelatine in feed for non-ruminant farmed animals - Panel EFSA

- Evaluation of an alternative method for production of biodiesel from processed fats derived from category 1, 2 and 3 animal byproducts - Panel EFSA

- EFSA cross cutting Working Group on Uncertainty.

### **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: 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
c	Belgium	2

**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?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
ISO 17025	ACCREDIA_ILAC_MRA.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
IDEXX BSE-Scrapie Antigen Kit EIA	ACCREDIA-ILAC MRA
BSE confirmatory immunoblotting	ACCREDIA-ILAC MRA
Immunohistochemistry for pathological prion protein	ACCREDIA-ILAC MRA
Histology	ACCREDIA-ILAC MRA

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?

Yes

National/ International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
International	Online Training course on TSEs ERFAN: Introduction to transmissible spongiform encephalopathies, pathogenesis, monitoring of TSEs, diagnosis of TSE, sample flow, TSE sampling methods	University of Pretoria South Africa	07/10/20	online	5 countries
International	Online Training course on TSEs ERFAN: BSE and scrapie confirmatory tests by Histopathology, Immunohistochemistry, Immunoblotting analyses and differential diagnosis	University of Pretoria South Africa	14/10/20	online	5 countries
International	Online Training course on TSEs ERFAN: Epidemiology and risk factors for BSE and small ruminants TSEs ;Schemes of BSE/TSE Surveillance; Risk assessment and OIE risk categorization for BSE	University of Pretoria South Africa	20/10/20	online	5 countries
International	Online Training course on TSEs ERFAN: Animal by-products ; Specified risk materials: removal, collection and disposal	University of Pretoria South Africa	28/10/20	online	5 countries
International	Online Training course on TSEs ERFAN: Genetic susceptibility as a risk factor of TSEs in small ruminants; Discussion	University of Pretoria South Africa	04/11/20	online	5 countries

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

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
Meeting of TSE NRLs	16-18/09/20	webinar	Speakers, TSE staff	The forthcoming 2020 rounds of EQAs:issue and news.
Working group TSE in North Africa	22/07/20	online	Working group coordinator	TSE Working Group to strenght expected activities
Working group TSE in SADC Region	04/08/20	online	Working group coordinator	TSE Working Group to strenght expected activities

**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: <sup>1</sup>	Role of your Reference Laboratory (organiser/ participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
Verify EU approved rapid test diagnostic standards and methods	Participant	25	TSE EURL,IT
BSE Confirmatory Immunoblotting	Participant	23	TSE EURL,IT
TSE Histopathology and immunohistochemistry interpretation EQA	Participant	31	TSE EURL,IT
PrP immunohistochemistry technical EQA	Participant	21	TSE EURL,IT

<sup>1</sup> 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 <sup>1</sup>	No. participating laboratories	Region(s) of participating OIE Member Countries
Harmonising existing test methods (IDEXX HerdCheck BSE-scrapie Antigen Kit EIA)	11 (Italian IIZZSS Labs)	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> 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?

Yes

Kind of consultancy	Location	Subject (facultative)
Confirmatory tests (Immunohistochemistry Immunoblotting and Histology)	Turin	TSE in camelids
Revision of OIE Terrestrial Manual, ninth edition: Chapter on bovine spongiform encephalopathy	Turin	Chapter on bovine spongiform encephalopathy

25. Additional comments regarding your report:

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 last year we have been working closely with countries in North Africa and South Africa and we have organised webinars and online training on prion disease surveillance. We also performed diagnostic confirmations on TSE cases from North African countries that will be reported in this report.