

WOAH Reference Laboratory Reports Activities 2024

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LABORATORY INFORMATION

*Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Scrapie
*Address of laboratory:	Centro de Encefalopatías y Enfermedades Transmisibles Emergentes. Universidad de Zaragoza. C/ Miguel Servet, 177 50013 Zaragoza SPAIN
*Tel:	+34-976 76 2947
*E-mail address:	badiola@unizar.es
Website:	http://centroeets.unizar.es/
*Name (including Title) of Head of Laboratory (Responsible Official):	Prof Marta Monzón Garcés
*Name (including Title and Position) of WOA Reference Expert:	Prof. Juan José Badiola Díez. Fundador y Director Honorífico del Centro de Encefalopatías y Enfermedades Transmisibles Emergentes
*Which of the following defines your laboratory? Check all that apply:	Academic institution

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 WOA Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
BioRad TeSeE ELISA	Yes	749	0
DEXX herdCheck BSE antigen test kit, EIA ELISA	Yes	1399	0
Direct diagnostic tests		Nationally	Internationally
Histopatología	Yes	12	

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			0
Inmunohistoquímica	Yes	12	0

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?

Not applicable

5. Did your laboratory supply vaccines to WOA?H 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 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?

No

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
CHILE	Adquirir muestras controles (positivos) para la técnica de Inmunohistoquímica para Scrapie.	En respuesta a la petición del Laboratorio de Patología, Servicio Agrícola y Ganadero de Chile, se remitieron bloques de parafina incluyendo tejido nervioso perteneciente a ovinos afectados por la enfermedad de Scrapie.

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: La incentivación de colaboración internacional ayudaría a la elaboración / actualización de las normas

Relevance for WOA

Relevance for the Code or Manual

Field

Animal Category

Disease:

Kind of disease (Zoonosis, Transboundary diseases)

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:

Notes:

Answer:

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

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:

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- Gujarro IM, Garcés M, Badiola JJ, Monzón M. *In situ assessment of neuroinflammatory cytokines in different stages of ovine natural prion disease.* *Front Vet Sci.* 2024 Oct 18;11:1404770. doi: 10.3389/fvets.2024.1404770. PMID: 39493812; PMCID: PMC11528339.

- Hernaiz A, Marín B, Vázquez FJ, Badiola JJ, Zaragoza P, Bolea R, Martín-Burriel I. *RNA-sequencing transcriptomic analysis of scrapie-exposed ovine mesenchymal stem cells.* *Res Vet Sci.* 2024 Nov;180:105423. doi: 10.1016/j.rvsc.2024.105423. Epub 2024 Sep 25. PMID: 39341025.

- Lozada J, Betancor M, Pérez S, Bolea R, Badiola JJ, Otero A. *Endoplasmic reticulum stress and ubiquitin-proteasome system impairment in natural scrapie.* *Front. Mol. Neurosci.* 21 April 2023; 16:1175364. doi.org/10.3389/fnmol.2023.1175364.

- Sola D, Sánchez E, de Francisco J, Marín B, Badiola JJ, Acín C. *Sleep disturbance in clinical and preclinical scrapie-infected sheep*

measured by polysomnography. *Vet Q.* 2024 Dec;44(1):1-9. doi: 10.1080/01652176.2024.2349674. Epub 2024 May 2.

b) International conferences:

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1. Sola D, Sánchez E, Marín B, Badiola JJ, Acín C. Sleep disturbance in clinical and preclinical scrapie-infected sheep measured by polysomnography. 12th Iberian prion Congress Santiago de Compostela. 23-24 Mayo de 2024.

2. Pérez-Lázaro S, Otero A, Marín B, Sevilla E, Eraña H, Castilla J, Sánchez-Martín MA, Badiola JJ, Vidal E and Bolea R. Atypical scrapie features can be reproduced through intracerebral inoculation of sheep with prions spontaneously originated in the ShTg112 transgenic mouse model. XII Iberian Prion Congress. Santiago de Compostela, 23-24 de mayo de 2024

3. Marco P, Zinkunegi M, Larrañaga N, Sola D, Marín B, Bolea R, Badiola JJ, Moreno B, Otero A. Detection of prions in oocytes and ovaries of ewes naturally infected with classical scrapie. Iberian Prion 2024. Santiago de Compostela, 23 - 24 mayo 2024

4. Marco P, Otero A, Arenal J, Larrañaga N, Sola D, Marín B, Bolea R, Moreno B, Badiola JJ. Comparative neuropathological study of sheep inoculated with a natural and a recombinant strain of scrapie prions. Cutting Edge Pathology Congress 2024. San Lorenzo del Escorial (Madrid). 28 - 31 Agosto 2024.

c) National conferences:

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

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TESIS DOCTORAL

- Estudio de los factores implicados en la transmisión, susceptibilidad genética y diagnóstico de las enfermedades priónicas. Diego Sola Fraca. Marzo 2024.

- Aportaciones al estudio de la transmisibilidad y la infectividad del scrapie atípico. Belén Marín González. Junio 2024

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOA Members?

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO17025	pdf	794_LE1663.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
ELISA IDEXX	ENAC (ENTIDAD NACIONAL DE ACREDITACIÓN)
ELISA BIORAD	ENAC (ENTIDAD NACIONAL DE ACREDITACIÓN)
HISTOPATOLOGÍA	ENAC (ENTIDAD NACIONAL DE ACREDITACIÓN)
INMUNOHISTOQUÍMICA	ENAC (ENTIDAD NACIONAL DE ACREDITACIÓN)

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

Yes

La evaluación del riesgo biológico, tras la notificación del primer uso desde el laboratorio, corresponde a la Unidad de Prevención de riesgos laborales (UPRL) de la Universidad de Zaragoza. Para la gestión del riesgo biológico en el laboratorio, se cuenta desde Julio de 2023 con un Técnico Superior de Bioseguridad exclusivo para el Centro.

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?

No

TOR10: NETWORK WITH WOAHP REFERENCE LABORATORIES

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

No

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

No

25. Did you organise or participate in inter-laboratory proficiency tests with WOAHP Reference Laboratories designated for the same pathogen during the past 2 years?

No

Pero como se ha señalado en el apartado TOR5, en nuestra opinión sería interesante y enriquecedor.

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?

No

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 during the past 2 years?

Yes

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Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Comprobar la capacidad de los laboratorios participantes en diagnosticar muestras de Scrapie, mediante el empleo de técnicas de diagnóstico rápido autorizadas en la UE	Participante	18	Diagnóstico rápido	SPAIN,
Determinar la aptitud de un laboratorio para efectuar pruebas de diagnóstico de Scrapie (como parte del programa de acreditación de dicho laboratorio).	Organizador	2	Histopatología e inmunohistoquímica	SPAIN,

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
Colaboración en revisión de criterios y concepto "libre de Scrapie", así como propuesta de recomendaciones sobre la susceptibilidad genética, vigilancia y comercio seguro de productos de riesgo	Correo electrónico	Terrestrial Code Chapter 14.8. Scrapie

29. Additional comments regarding your report: