

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 29 avril 2024 12:04

Laboratory Information

Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory:	Epizootic haemorrhagic disease
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Website:	www.anses.fr
Name (including Title) of Head of Laboratory (Responsible Official):	Dr Stéphane Zientara, Director of the Animal Health laboratory
Name (including Title and Position) of WOAHO Reference Expert:	Stéphane Zientara
Which of the following defines your laboratory? Check all that apply:	Research agency

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			
ELISA		165	0
Seroneutralisation		30	0
Direct diagnostic tests			
All genotypes rRT-PCR (Viarouge et al, 2015)		731	210
Typing rRT-PCR (Viarouge et al, 2015)		10	104
Viral isolation on KC cells		0	10

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
Reference Sera	ELISA / seroneutralisation	Produced and provided	0	7 X 1 ml	1	AUSTRIA,
	ELISA /					

Reference Sera	seroneutralisation	Produced and provided	0	7 X 1 ml	1	ITALY,
Reference Sera	ELISA / seroneutralisation	Produced and provided	0	2 X 1 ml	1	PORTUGAL,
RNA	rtRT-PCR	Produced and provided	0	12 X 20 µl	1	AUSTRIA,
RNA	rtRT-PCR	Produced and provided	0	3 X 20 µl	1	CROATIA,
RNA	rtRT-PCR	Produced and provided	0	3 X 20 µl	1	SWEDEN,
virus	Viral isolation	Produced and provided	0	4 X 1ml	1	SPAIN,
Inactivated Virus	rtRT-PCR	Produced and provided	0	2 X1ml	1	MOROCCO,
Inactivated Virus	rtRT-PCR	Produced and provided	0	1ml	1	SWEDEN,
Inactivated Virus	rtRT-PCR	Produced and provided	100 X 500 µl	0	1	FRANCE,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHP 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 WOAHP 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 WOAHP Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAHP Members?

Yes

NAME OF WOAHP 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
SWITZERLAND	2023-10-27	rtRT-PCR	10	0

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

Yes

NAME OF THE WOAHP MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
AUSTRIA	Diagnosis	By email
SPAIN	Virus isolation	By email
CROATIA	Diagnosis rtRT-PCR	By email
MOROCCO	Diagnosis rtRT-PCR	By email
PORTUGAL	Serological diagnosis	By email
SWEDEN	Diagnosis rtRT-PCR	By email

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAHP MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Orbivirus Circulating in Cuba in 2022	3 months	Detection, Characterization and Sequencing of Orbivirus	National Center for Animal and Plant Health (CENSA)	CUBA

Circulating in Cuba in 2022

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

No

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:

Surveillance and identification of EHDV strains that circulate in the French overseas territories (French Guiana and Reunion Island) enrich the epidemiological data on the distribution of the virus in the Indian Ocean and South America.

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:

genetic data

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:

7

Breard, E., L. Postic, M. Gondard, C. Bernelin-Cottet, A. Le Roux, M. Turpaud, P. Lucas, Y. Blanchard, D. Vitour, L. Bakkali-Kassimi, S. Zientara, W. Al Rawahi, and C. Sailleau. 2023. "Circulation of Bluetongue Virus Serotypes 1, 4, 8, 10 and 16 and Epizootic Hemorrhagic Disease Virus in the Sultanate of Oman in 2020-2021." *Viruses* 15 (6). <https://doi.org/10.3390/v15061259>.

Lorusso, A., S. Cappai, F. Loi, L. Pinna, A. Ruiu, G. Puggioni, A. Guercio, G. Purpari, D. Vicari, S. Sghaier, S. Zientara, M. Spedicato, S. Hammami, T. Ben Hassine, O. Portanti, E. Breard, C. Sailleau, M. Ancora, D. Di Sabatino, D. Morelli, P. Calistri, and G. Savini. 2023. "Epizootic Hemorrhagic Disease Virus Serotype 8, Italy, 2022." *Emerg Infect Dis* 29 (5): 1063-1065. <https://doi.org/10.3201/eid2905.221773>.

Spedicato, M., F. Profeta, S. Thabet, L. Teodori, A. Leone, O. Portanti, M. Piscicella, B. Bonfini, S. Pulsoni, F. Rosso, E. Rossi, P. Ripa, A. De Rosa, E. Ciarrocchi, R. Irelli, A. Cocco, C. Sailleau, C. Ferri, T. Di Febo, D. Vitour, E. Breard, D. Giansante, S. Sghaier, T. Ben Hassine, S. Zientara, R. Salini, S. Hammami, G. Savini, and A. Lorusso. 2023. "Experimental infection of cattle, sheep, and goats with the newly emerged epizootic hemorrhagic disease virus serotype 8." *Vet Ital*. <https://doi.org/10.12834/VetIt.3433.23112.1>.

Zientara, Stéphan, Emmanuel Bréard, Damien Vitour, et Corinne Sailleau. 2023a. « Emergence of Epizootic Hemorrhagic Disease in Europe ». *Virologie (Montrouge, France)* 27 (1): 16-17. <https://doi.org/10.1684/vir.2023.987>.

2023 « [Emergence of epizootic hemorrhagic disease in Europe] ». *Virologie (Montrouge, France)* 27 (1): 27-29. <https://doi.org/10.1684/vir.2023.0988>.

Zientara, Stéphan, Bréard, Emmanuel, Postic, Lydie, Turpaud, Mathilde, Caignard, Grégory, Vitour, Damien, et Sailleau, Corinne. 2023a. « Première émergence du virus de la maladie hémorragique épizootique en Europe. » *Le Point vétérinaire* 440: 130-34.

Zientara, Stéphan, Bréard, Emmanuel, Postic, Lydie, Turpaud, Mathilde, Fablet, Aurore, Caignard, Grégory, Vitour, Damien, et Sailleau, Corinne. 2023. « Emergence de la maladie hémorragique épizootique en Europe. » *Épidémiol. et santé anim.* 81: 5-9.

Zientara, Stéphan et Gonzalez, Gaelle. 2023. « Actualités sur deux maladies virales vectorielles zoonotiques en Europe: West Nile et Usutu - Ré-émergence du sérotype 8 du virus

b) International conferences:

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Zientara. 2023. « Impacts des changements climatiques sur les maladies vectorielles et conséquences en santé animale. » *Communication orale invitée, webinaire, Centre national de veille zoonositaire, Tunisie, septembre 1.*

Zientara. 2023. « EHD: emergence in Europe. » *Communication orale invitée, webinaire présenté à Réseau méditerranéen en santé animale - BLUETONGUE AND EPIZOOTIC HEMORRHAGIC DISEASES: current epidemiologic scenarios and prevention innovations, septembre 12.*

Zientara. 2023. « Emergence of Orbiviruses in France. » *Communication orale invitée présenté à Workshop EU-RL BTV and AHSV, Madrid, Spain, novembre 7.*

Zientara. 2023. « Emerging of EHDV-8 in France. » *Communication orale invitée, webinaire présenté à EREN – emerging risks exchange network - (EFSA), novembre 21.*

Zientara. 2023. « *Orbiviruses: the situation in France.* » *Communication orale invitée, webinaire présenté à colloque Giornata di studio sulla Bluetongue, IZS Teramo, Italy, décembre 5.*

c) National conferences:

5

Sailleu, Corinne. 2023. « *Première émergence du virus de la maladie hémorragique épizootique en Europe.* » *Communication orale présentée à Journées francophones de Virologie, Institut Pasteur, Paris, avril 17.*

Zientara, Stéphan. 2023a. « *Maladie hémorragique épizootique.* » *Conseil scientifique et technique du LNCR.*

Zientara. 2023d. « *Situation en Corse de la FCO et Situation sanitaire concernant l'EHDV en Méditerranée.* » *Communication orale invitée, visioconférence présenté à Journée convention DGAI-CIRAD, Corte, France, septembre 25.*

Zientara. 2023e. « *Emergence de l'EHD/MHE (Maladie hémorragique épizootique) en Italie, en Espagne, au Portugal et en France.* » *Communication orale présenté à Rencontres Nationales en Santé Publique Vétérinaire, journée scientifique de l'ADILVA, CHorges, France, octobre 10.*

Zientara. 2023h. « *Changement climatique et maladies virales vectorielles en santé animale.* » *Communication orale invitée, webinaire présenté à colloque sur l'impact sanitaire du changement climatique sur les productions animales, Mérieux NutriSciences, novembre 23.*

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

0

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 : 0

b) Seminars : 0

c) Hands-on training courses: 0

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
D	CUBA	1

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	joint	Attestation 1-2246 révision 25.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Detection of viral genome by rRT-PCR	COFRAC

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

Yes

Strains and sera are stored and manipulated in BSL3 lab which is controlled under biosecurity measures

TOR9: SCIENTIFIC MEETINGS

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

No

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

Yes

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Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
Annual meeting BTV/AHSV Eurl	2023-11-24	Madrid	Speaker (Zientara)	Emergence of Orbiviruses in France
Webinare of REMESA	2023-12-09	webinare	Speaker (Zientara)	EHD: emergence in Europe
Webinare of French Ministry and CIRAD	2023-12-25	webinare	Speaker (Zientara)	Sanitary situation of EHDV in Europe
National conference of the association of veterinary laboratories	2023-12-23	France (Chorges)	Speaker (Zientara)	Emergence of EHD in Italy, Spain, and France
EREN – emerging risks exchange network - (EFSA)	2023-11-21	webinare	Speaker (Zientara)	Emerging of EHDV-8 in France
colloque « Giornata di studio siulla Bluetongue, l'IZS Teramo.	2023-12-05	webinare	Speaker (Zientara)	Orbiviruses: the situation in France

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
Assess the ability of participating laboratories to properly detect EHDV antibodies in serum (ELISA), and to identify nucleic acid of EHD virus in ruminant blood (rtRT-PCR)	organizer	1	PCR	CANADA,
Assess the ability of participating laboratories to properly detect EHDV antibodies in serum (ELISA), and to identify nucleic acid of EHD virus in ruminant blood (rtRT-PCR)	organizer	1	PCR	UNITED KINGDOM,

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No