WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 25 avril 2023 17:06

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Swine Vesicular Disease
Address of laboratory:	Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna (IZSLER) Via A. Bianchi No 9, 25124 Brescia, Italy
Tel.:	+390302290614
E-mail address:	giulia.pezzoni@izsler.it
Website:	https://www.izsler.it/
Name (including Title) of Head of Laboratory (Responsible Official):	Dr Piero Frazzi (IZSLER General Director)
Name (including Title and Position) of WOAH Reference Expert:	Dr Giulia Pezzoni (Permanent position as Biologist at IZSLER-Vesicular Viruses Lab.)
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
SVDV Competitive ELISA	Yes	17338 (Ref. Lab) and 19504 (Regional Laboratory)	
SVDV IgG indirect ELISA	Yes	41	
SVDV IgM indirect ELISA	Yes	41	
SVDV Virus Neutralization	Yes	43	
Direct diagnostic tests		Nationally	Internationally

TOR2: REFERENCE MATERIAL

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

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAH MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
anti-SVDV 5B7 catching monoclonal antibody	5B7-competitive ELISA (WOAH prescribed test for Ab detection)	Produced and provided		4.5 mL	2	America Europe
5B7 conjugated monoclonal antibody	5B7-competitive ELISA (WOAH prescribed test for Ab detection)	Produced and provided		11,2 mL	2	America Europe
SVDV inactivated antigen	5B7-competitive ELISA (WOAH prescribed test for Ab detection) antigen source	Produced and provided		65mL	1	Europe
SVDV inactivated antigen	SVDV RT-PCR as positive control	produced and provided		5mL	1	America
Positive control serum	5B7-competitive ELISA (WOAH prescribed test for Ab detection)	Produced and provided		1mL	1	Europe
Negative control serum	5B7-competitive ELISA (WOAH prescribed test for Ab detection)	Produced and provided		1mL	1	Europe
Reference Control Serum	5B7-competitive ELISA (WOAH prescribed test for Ab detection)	Produced and provided		1mL	1	Europe
Assembled reagents for 5B7-competitive ELISA (capture and conj. mAbs, inactivated SVDV antigen, control sera)	5B7-competitive ELISA (WOAH prescribed test for Ab detection)	Produced and provided	For testing of 17338 sera at NRL +20.000 sera in regional labs		1	Europe
Assembled reagents for SVDV IgG-ELISA	SVDV IgG-ELISA for Ab detection class IgG	Produced and provided	For testing of 41 sera (NRL Italy)		1	Europe
Assembled reagents for SVDV	SVDV IgG-ELISA for Ab detection	Produced and	For testing of 41		1	Europe

IgM-ELISA	class IgM	provided	sera (NRL Italy)			

4. Did your laboratory produce vaccines?

No

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

Yes

NAME OF THE WOAH MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
ITALY	Technical consultancy to laboratories and local veterinary services for lab results interpretations and follow-up activities	Technical explanations and advice

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

TOR6: EPIZOOLOGICAL DATA

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

No

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

No

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
Ming Yang, Leanne McIntyre, Wanhong Xu, Emiliana Brocchi, Santina Grazioli, Kathleen Hooper-McGrevy, Charles Nfon
Validation of a competitive enzyme-linked immunosorbent assay to improve the serological diagnosis of swine vesicular disease.
Can J Vet Res. 2022 Apr;86(2):157-161.PMID: 3538822

b) International conferences:

c) National conferences:

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

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH 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)	
UNI CEI EN ISO/IEC 17025:2018		CERTIFICATO-DI-ACCREDITMENTO.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
5B7-Competitive ELISA (WOAH prescribed test for screening)	Accredia - Italy System Accreditation Service
Virus Neutralizazion Test	Accredia - Italy System Accreditation Service
Sandwich ELISA for antigen detection (mAbs-based)	Accredia - Italy System Accreditation Service
Conventional RT-PCR 3D-gene	Accredia - Italy System Accreditation Service
Real Time RT PCR 3D-gene	Accredia - Italy System Accreditation Service
Virus Isolation, IgG and IgM ELISA	IZSLER-coded tests, subject to regular internal and external QC

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

Yes

The biosecurity management system is maintained according to the WOAH Manual of Diagnostic and Vaccine for Terrestrial Animal, Chapter 1.1.4.

TOR9: SCIENTIFIC MEETINGS

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

No

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

No

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

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

Yes

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

No

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

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOAH REF. LABS/ ORGANISING WOAH REF. LAB.
The Proficiency Test 2022, organized by the FMD-EURL (ANSES-France & Sciensano-Belgium), included the evaluation of laboratory capability to early detection and differential diagnosis of FMD/SVD outbreaks using virological and serological methods. Testing panels comprised live viruses for FMDV detection, typing and sequencing and serum samples for SVD serological tests.	Participant	30	Participating Labs: NRLs of EU member countries, the WOAH reference Lab for SVD,some EU canditate countries. Organising Labs: ANSES (France) and Sciensano (Belgium).

26. Did your laboratory collaborate with other WOAH 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 comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Region(s) of participating WOAH Member Countries
To monitor the harmonisation and performance of the 5B7-competitive ELISA for SVDV Ab detection	Organizer of the annual inter-laboratory proficiency test in Italy	10	Europe

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

Yes

In European countries, SVDV investigations are almost exclusively conducted for differential diagnosis with other vesicular conditions of pigs or for import-export requirements. In the last years, no SVDV outbreaks have been declared.