WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 2 mai 2024 00:56

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Foot and Mouth Disease
Address of laboratory:	40550 NY-25, Orient Point, NY 11957
Tel.:	1-631-323-3300
E-mail address:	vivian.odonnell@usda.gov
Website:	https://www.aphis.usda.gov/
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Robin Holland, Director, NVSL-FADDL
Name (including Title and Position) of WOAH Reference Expert:	Dr. Vivian O'Donnell, Microbiologist, SLSS, NVSL, FADDL
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
3ABC ELISA		374	0
Virus Neutralization		8	0
VIAA AGID		68	0
Vaccine Matching		0	0
Direct diagnostic tests		Nationally	Internationally
Virus Isolation		1311	0
Antigen ELISA		15	0
PCR		1717	0

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
		FMDV positive				

PCR Controls	FMDV rRT-PCR	amplification control (PAC)	160 vials	0	1	UNITED STATES OF AMERICA,

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?

Yes

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
Direct RNA FMDV Sequencing	Sequencing of FMDV on the Nanopore platform directly from the viral RNA without the reverse transcription step to reduce time and cost to acquiring the whole genome sequence for characterization. Submitted for publication to BioProtocols.
FMDV P1 Sequencing	Sequencing of FMDV P1 on Nanopore using Amplicon approach of P1 and Flongle flow cells to reduce cost and time for rapid characterization.
Evaluation of diagnostic sensitivity of the FMDV singleplex real-time PCR assay with two different probes.	The results of this study indicate that the current TAMRA quenched probe and the suggested ZEN/ IABk quenched probe perform comparably with the sample set tested.

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?

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH 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
PD50 Serotype A	7 weeks	Vaccine Potency Test	NAVVCB	
PD50 Serotype SAT	7 weeks	Vaccine Potency Test	NAFMDVB (PIADC/CFIA)	CANADA

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

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:

b) International conferences:

1
FMD Reference Laboratory Network Meeting, Canada 2023.

c) National conferences:

1
US Animal Health Association, American Association of Veterinary Laboratory Diagnosticians, 2023

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?

Yes

a) Technical visit : 0

b) Seminars : 0

c) Hands-on training courses: 4

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	UNITED STATES OF AMERICA	100

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	Touchstone:Accreditation & Assessment Management System - Customer Portal (a2la.org)	Touchstone_Accreditation & Assessment Management System - Customer Portal.pdf
ISO/IEC 17043: 2010	Touchstone:Accreditation & Assessment Management System - Customer Portal (a2la.org)	Touchstone_Accreditation & Assessment Management System - Customer Portal.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Real-time reverse transcription PCR for the detection of Foot-and-mouth disease virus	American Association for Laboratory Accreditation (A2LA)
ELISA for detection of antibodies against nonstructural 2ABC protein of foot and mouth disease virus	American Association for Laboratory Accreditation (A2LA)
The vesicular antigen ELISA for the detection of FMDV in epithelial tissue samples, vesicular fluid, and cell culture isolates	American Association for Laboratory Accreditation (A2LA)
Virus isolation (VI) procedure for vesicular suspect samples	American Association for Laboratory Accreditation (A2LA)
The foot and mouth disease (FMD) virus infection associated antigen (VIAA) agar gel	American Association for Laboratory Accreditation (A2LA)

immunodiffusion (AGID) assay	

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

Yes

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?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
FMD Reference Lab Network Meeting	2023-10-10	Canada	Speaker, Attendee	NVSL-FADDL activities as a WOAH reference lab for FMD

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

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

No

24. Do you network (collaborate or share information) with other 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.
FMD Proficiency Testing Scheme – October 2023	Participant	17	Organizer: The Pirbright Institute, UK

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?

No

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Response to FMDV VLP vaccines to be included into Terrestrial Manual	Orient, NY, USA	FMDV

29. Additional comments regarding your report:

No