OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-01-20 23:56:58

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Contagious equine metritis
Address of laboratory:	USDA, APHIS, Veterinary Services P.O. Box 844 Ames, Iowa 50010 UNITED STATES OF AMERICA
Tel.:	+1.515 337.75.65
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Website:	www.aphis.usda.gov/nvsl
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Suelee Robbe-Austerman, Director, National Veterinary Services Laboratories, DB, VS, APHIS, USDA
Name (including Title and Position) of OIE Reference Expert:	Matthew M. Erdman, Senior Staff Veterinarian, Center for Veterinary Biologics, STASDB, VS, APHIS, USDA
Which of the following defines your laboratory? Check all that apply:	Governmental

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	
Indirect diagnostic tests		Nationally	Internationally
Complement Fixation	Yes	1115	195
Direct diagnostic tests		Nationally	Internationally
Identification of the Agent	Yes	1031	85
Real-Time PCR	Yes	1	0
Genome Sequencing	No	2	3

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?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient OIE Member Countries	Region of recipients
Culture control isolates	Identification of the	Produced	0	0	0	☐Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East
Modified Timoney-Shin Agar	Identification of the Agent	Produced	370	0	1	☐Africa ☒Americas ☐Asia and Pacific ☐Europe ☐Middle East
Eugon atar with 10% chocolated horse blood	Identification of the Agent	Produced	390	0	1	☐Africa ☒Americas ☐Asia and Pacific ☐Europe ☐Middle East
CEM High Positive control sera	Complement Fixation	Produced	15 ml	0	1	☐Africa ☒Americas ☐Asia and Pacific ☐Europe ☐Middle East

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
ARGENTINA	Sep	2	0
BELGIUM	Feb, Mar, Apr, Jun, Jul, Sep, Oct, Nov, Dec	60	0
BARBADOS	Aug	4	0
GERMANY	Jan, Feb, Mar, Aug	6	0
DOMINICAN (REP.)	Jul, Nov	16	0
ECUADOR	Jan	1	0
FRANCE	Sep	1	0
UNITED KINGDOM	Aug, Sep, Oct	5	0
IRELAND	Jan, May, Sep	4	0
SAINT LUCIA	Sep	4	0
LUXEMBOURG	Jan	2	0
THE NETHERLANDS	Jan, Feb, Jun, Sep, Dec	49	0
VENEZUELA	Feb	1	0

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
UNITED KINGDOM	Acquired and performed whole genome sequencing of isolates. Sharing of sequence data	E-mail
SOUTH AFRICA	Continued communication on analysis of sequenced isolates	E-mail, Telephone
DENMARK	Provision of metadata from publicly available NVSL sequences for comparison to isolates sequenced by Denmark, general consultation on culture protocols, susceptibility testing, and information about isolates from the 2008-2010 US investigation	E-mail, Telephone
CHILE	Provided documents and information on CEM culture media and methods for validating extended expiration dates.	E-mail

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
Evaluation of PCR reproducibility	2 years	Provide additional reproducibility data for PCR assays to support validation data.	Multiple laboratories including Animal and Plant Health Agency Bury St Edmunds Rougham Hill ; Wageningen Bioveterinary Research Department of Bacteriology & Epidemiology	THE NETHERLANDS UNITED KINGDOM

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:
Number of horses and samples tested for import purposes. Number of positive identifications within the country

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:
Import horse and sample test numbers.

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: 0

c) National conferences: 0
United States Animal Health Association annual meeting: as needed, no presentation in 2020 due to absence of disease activity.

d) Other:
(Provide website address or link to appropriate information) 1
https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/equine/cem/contagious-equine-metritis

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?

No

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 17043 Proficiency Testing Provider	ISO Cert 2020 PT.pdf
ISO 17025 Biological Testing	ISO Cert 2020 Biological.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Taylorella species isolation and identification	A2LA
Contagious Equine Metritis Compliment Fixation Test	A2LA
Taylorella species real-time PCR - identification of the agent	A2LA
Proficiency Panel Contagious Equine Metritis Isolation from Culture	A2LA

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?

No

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

No

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: [1]	Role of your Reference Laboratory (organiser/ participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
Isolation and Identification of the Agent	Participant	Unknown	National Veterinary Services Laboratories / Animal and Plant Health Agency (APHA)quality assurance unit (Vetqas)

[1] *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?

Yes

Title of the project or contract	Scope	Name(s) of relevant OIE Reference Laboratories
Collaborative Project to Evaluate PCR	Currently it is difficult for any one country or laboratory to evaluate direct PCR for this disease due to the small number of positive samples and lack of diversity of isolates when positive samples are available. By validating assays as a collaborative effort, the diversity and number of positive swabs can be expanded.	National Veterinary Services Laboratories; Animal and Plant Health Agency Bury St Edmunds Rougham Hill ; Wageningen Bioveterinary Research Department of Bacteriology & Epidemiology

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?

No

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

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?

No

25. Additional comments regarding your report:

For ToR 4, Diagnostic testing – we also provided testing for the European Union (export and semen export) 125 samples for provision of diagnostic support in the months of Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec

For ToR 4, Diagnostic testing – Our laboratory oversees a network of 13 laboratories in the United States authorized to perform CEM culture testing. During fiscal year 2020, these laboratories performed testing of a total of 1180 equids with 10,564 samples from CEM affected countries imported into the United States for permanent entry.

For ToR 7, # 14: Our laboratory provides an annual training course for laboratory personnel in the United States. All personnel at laboratories in the US that perform CEM culture must attend this training. The training course was not conducted in 2020 due to COVID-19 restrictions. Training is available for international participants on a by request basis. No international requests were received in 2020

For ToR5, #10: Multiple laboratories participated. The exact participants are kept confidential, We listed the three laboratories and countries heading the study.