OIE Reference Laboratory Reports Activities

Activities in 2021

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Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Bovine viral diarrhoea
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Website:	
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Kingsley Amoako, Director, Canadian Food Inspection Agency, National Centres for Animal Diseasse, Lethbridge Laboratory
Name (including Title and Position) of OIE Reference Expert:	Dr. Oliver Lung, Research Scientist/Head, Genomics Unit, Canadian Food Inspection Agency, National Centre for Foreign Animal Disease
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
BVD-SN	Yes	4900	0
Border Disease (BD)-SN	No	135	0
Direct diagnostic tests		Nationally	Internationally
BVD-ISO	Yes	586	0
BVD-IP	Yes	3168	0
BD-IP	No	162	0

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
BVDV mAb pool	BVD-IP	2 mL/2 mL	2 mL	0	1	☐Africa ☒Americas ☐Asia and Pacific ☐Europe ☐Middle East
bovine whole blood from BVD-free SPF animals	diagnostic controls	9955 mL	430 mL	0	1	☐Africa ☒Americas ☐Asia and Pacific ☐Europe ☐Middle East
bovine serum from BVD-free SPF animals	diagnostic controls	1749 mL	16 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?

No

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
MALAYSIA	request information regarding BVDV strains	email

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
High consequence emerging viral diseases of swine in the Caribbean Region	2 years	Characterization of viruses in swine from Cuba	Caribbian Animal Health Network consisting of 34 countries	CUBA
Updating NCFAD's method for high throughput sequencing of known, novel and unexpected viruses	3 years	Further improvements to laboratory methods for whole genome sequencing of known and unknown animal viruses	National Autonomous University of Mexico	MEXICO
Ultra-rapid realtime direct RNA/DNA nanopore sequencing and analysis in the laboratory and the field for animal health emergencies	3 years	Establish laboratory and analysis methods for ultra rapid direct RNA and DNA sequencing of animal viruses	National Autonomous University of Mexico	MEXICO
Comparison of Illumina and IonTorrent high-throughput sequencing for FMDV	3 years	To compare the performance of IonTorrent and Illumina sequencing on whole genome sequencing of FMDV genome as a test case for other viruses	Pan American Center for Foot-and-Mouth Disease and Veterinary Public Health	BRAZIL
Best Practices for Microbial Forensic Investigations:Microbial Investigation Processing Inter-laboratory Exchange	2 years	Identify best practices for laboratory microbial forensics investigations	Multiple laboratories in multiple countries	UNITED STATES OF AMERICA

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:
passive surveillance was conducted

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:
reports are provided to the Canadian Food Inspection Agency on a regular basis

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

d) Other:
(Provide website address or link to appropriate information) 1
Annual reports are provided to the Canadian Food Inspection Agency

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 17025	2021 ASB_CTF_15366-CFIA-Certificate_v3_2021-07-22.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
BVD-SN	Standards Council of Canada
BVD-ISOL	Standards Council of Canada
BVD-IP	Standards Council of Canada

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?

No

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?

No

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?

Yes

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

Purpose for inter-laboratory test comparisons[1]	No. participating laboratories	Region(s) of participating OIE Member Countries
Proficiency and quality assurance	multiple	☐Africa ☒Americas ☐Asia and Pacific ☐Europe ☐Middle East

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?

Yes

Kind of consultancy	Location	Subject (facultative)
consultation related to BVD diagnostics	remote assistance	protocols for diagnostic tests
provision of reagents	remote assistance	provision of diagnostic and research reagents related to BVD
review of BVD chapter in OIE manual	remote assistance	updating of chapter

25. Additional comments regarding your report: