

OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-01-20 23:31:13

| | |
|--|--|
| Name of disease (or topic) for which you are a designated OIE Reference Laboratory: | Bovine viral diarrhoea |
| Address of laboratory: | P.O. Box 640 Township Road 9-1 Lethbridge, Alberta T1J 3Z4 CANADA |
| Tel.: | +1-403 382 55 00 |
| Fax: | +1-403 381 12 02 |
| E-mail address: | oliver.lung@canada.ca |
| Website: | |
| Name (including Title) of Head of Laboratory (Responsible Official): | Dr. Kingsley Amoako, Director, Canadian Food Inspection Agency National Centres for Animal Disease, 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 | |
|---------------------------|----------------------------------|--|-----------------|
| | | Nationally | Internationally |
| Indirect diagnostic tests | | | |
| BVD-SN | Yes | 4555 | 0 |
| Border Disease-IP | No | 90 | 0 |
| Border Disease-SN | No | 85 | 0 |
| Direct diagnostic tests | | | |
| BVD-Isolation | Yes | 448 | 0 |
| BVD-IP | Yes | 90 | 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 |
|------------------------------------|-------------------------|-------------------|-------------------------------------|--|---------------------------------------|---|
| Whole blood from BVDV-free animals | diagnostic controls | 2460 ml | 0 | 0 | 0 | <input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East |
| BVD mAb pool | BVD-IP | 2 ml | 2 ml | 0 | 1 | <input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East |
| BVD positive and negative sera | assay controls | 3 ml | 3 ml | 0 | 1 | <input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East |
| BVD virus | BVD-SN | 0 | 0 | 0 | 0 | <input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> 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 |
|--|-----------------------------------|-----------------------------|
| SERBIA | proficiency testing for BVDV qPCR | email |
| CHILE | BVDV RT-PCR protocol | email |
| EGYPT | reference sera for BVD | email |
| TURKEY | reference sera for BVD | 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 | Caribbean Animal Health Network consisting of 34 countries | CUBA |
| Updating NCFAD's primary pan-viral 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 for FMDV | 3 years | To compare the performance of IonTorrent and Illumina sequencing on whole genome sequencing of FMDV genome | Pan American Center for Foot-and-Mouth Disease and Veterinary Public Health | BRAZIL |

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 submitted 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 submitted 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) |
|-----------------------------------|---|
| ISO17025 | 2020 15366-SCC Certificate of Accreditation CFIA-Lethbridge.pdf |

16. Is your quality management system accredited?

Yes

| Test for which your laboratory is accredited | Accreditation body |
|--|-----------------------------|
| Immunoperoxidase Monolayer | Standards Council of Canada |
| Virus Isolation | Standards Council of Canada |
| Serum Neutralization | 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 | <input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> 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 |

25. Additional comments regarding your report:

Several requests for reagents could not be finished this reporting period due to laboratory staff involvement in responding to the pandemic. Meetings related to BVD were also cancelled due to the pandemic.