OIE Reference Laboratory Reports Activities Activities in 2021

This report has been submitted : 2022-01-19 17:00:16

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis
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Name (including Title) of Head of Laboratory (Responsible Official):	Prof Ian Hewett, interim CEO
Name (including Title and Position) of OIE Reference Expert:	Dr. Akbar Dastjerdi, Head of Mammalian Virus Investigation Unit
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
SNT	Yes	285	0
iELISA	Yes	1282	0
gE ELISA	Yes	594	0
ELISA (Milk)	Yes	149	0
cELISA	Yes	9033	0
Direct diagnostic tests		Nationally	Internationally
Triplex IBR/PI3/BRSV PCR	No	440	0
PCR	Yes	0	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?

No

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?

No

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?

No

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?

No

If the answer is no, please provide a brief explanation of the situation:

Bovine herpesvirus-1 is distributed worldwide, with the exception of the BoHV-1-free countries, therefore little is done internationally to control the virus. However, UK bull studs which provide semen internationally are IBR free to prevent dissemination of the virus further.

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

No

If the answer is no, please provide a brief explanation of the situation:

Our laboratory does not collect any epizootiological data as the virus is endemic in the UK.

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) $\ 0$

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/IEC 17025:2017	ISO17025 Certificate.pdf	
ISO/IEC 17025:2017	1769Testing-Multiple-1.pdf	
ISO 9001:2015	ISO9001 certificate 2020-2023.pdf	

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
ELISA, cELISA, SNT	United Kingdom Accreditation Service (UKAS)

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?

Yes

Title of the project or contract	Scope	Name(s) of relevant OIE Reference Laboratories
OIE reference sera for IBR diagnosis	Generation and validation of IBR ref Sera	FLI, Germany

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: <u>http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing</u> see point 1.3

Purpose for inter-laboratory test comparisons ¹	No. participating laboratories	Region(s) of participating OIE Member Countries
Assessing performance of IBR ELISA for the detection of antibody to BoHV-1 in bulk milk	20	 □Africa △Americas □Asia and Pacific ○Europe ■Middle East
Assessing performance of IBR ELISAs for the detection of antibody to BoHV-1 in serum samples.	34	 Africa Americas Asia and Pacific Europe Middle East
Assessing performance of PCR for the detection of BoHV-1 in tissues.	8	■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?

No

25. Additional comments regarding your report:

As an OIE reference laboratory for IBR, we continued to investigate inconclusive cELISA cases in bulls from a single bull stud. Cross-reactivity of antibodies to BoHV-2 and 4 in BoHV-1 cELISA is documented in several publications.

Nasal swab samples from 187 of the animals in this bull stud were tested in a pan herpesvirus PCR and this resulted in the detection of BoHV-6 in 20% of animals including those with inconclusive cELISA outcome. This virus was also subjected to NGS and we are now completing annotation of the virus genome. We plan to publish these findings in 2022.

APHA has also been collaborating with OIE ref laboratory for IBR in Germany (FLI) with regard to generation of validated IBR reference sera. The outcome will be reported in 2022 report.