OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-01-20 21:31:51

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. Dr. Martin Beer (head of laboratory); Dr. Patricia König (deputy head of laboratory: patricia.koenig@fli.de)
Name (including Title and Position) of OIE Reference Expert:	Prof. Dr. Martin Beer (head of laboratory)
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
BHV-1 whole virus ELISA	yes	183	92
BHV-1 gB blocking ELISA	yes	813	100
BHV-1 gE blocking ELISA	yes	897	138
BHV-1 bulk milk ELISA	yes	35	0
BHV-2 whole virus ELISA	no	48	40
BoHV-1/ BuHV-1 differentiating ELISA	no	14	42
serum neutralisation test	yes	19	54
Direct diagnostic tests		Nationally	Internationally
virus isolation in cell culture	yes	2	0
PCR	yes	288	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
milk samples	milk/ bulk milk indirect antibody ELISA	0/30	19x 1ml	95x 1ml, 25x40ml	6	☐Africa ☒Americas ☐Asia and Pacific ☒Europe ☐Middle East
serum samples	antibody ELISA, SNT	0/50	56x 1ml	251x 1ml	8	☐Africa ☒Americas ☒Asia and Pacific ☒Europe ☐Middle East
meat juice samples	antibody ELISA	2/4	8x 1ml		0	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
DNA	PCR	0/15	0	0	0	☐Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East
virus stocks	virus isolation,IFA, SNT, PCR	0/10	0	5x 1ml	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
AUSTRIA	February	15	0
ITALY	August	4	0
SWITZERLAND	September	23	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
FINLAND	virus isolation	material transfer
SPAIN	serolological testing in an eradication programme	email
SWITZERLAND	diagnostic problem of pseudo-vaccinees	phone, email, samples diagnostic support

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
Detection of gE antibodies in bulk milk	2017-2021	Validation of a reliable test system for the detection of gE antibodies in marker vaccinated herds	TGD e.V. Poing, Germany In3diagnostic,Italy	ITALY
Whole Genome sequencing	2020-21	sequence determination of international BoHV-1 isolates: possibilities for molecular epidemiology	GD Deventer	THE NETHERLANDS

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:
Institute of Epidemiology at the FLI is collecting all data of the German BHV-1 surveillance testing and is hosting the TSN disease notification system

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:
The above mentioned data are presented to the European Commission and the OIE.

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: 1
Petrini, S., König, P., Righi, C., Iscaro, C., Pierini, I., Casciari, C., Pellegrini, C., Gobbi, P., Giammarioli, M., & De Mia, G. M. (2020). Serological Cross-Reactivity Between Bovine alphaherpesvirus 2 and Bovine alphaherpesvirus 1 in a gB-ELISA: A Case Report in Italy. Frontiers in veterinary science, 7, 587885.
https://doi.org/10.3389/fvets.2020.587885

b) International conferences: 1
IBR and BVD Control and Eradication in the EU: Towards an harmonisation of diagnostics in the context of EU recognition of control programmes - A CoVetLab workshop, February, 03.-04./2020, Maisons-Alfort, France
Assessment & standardisation of
IBR & BVD diagnostic reagents in the EU:
Germany
Patricia König, Martin Beer

c) National conferences: 1
AKNZ Ahrweiler, Germany; January 23./2020:
BHV-1: virologic and diagnostic aspects
Patricia König, Martin Beer

d) Other:
(Provide website address or link to appropriate information) 1
www.fli.de
Tiergesundheitsjahresbericht 2020/ Hrsg. Friedrich-Loeffler-Institut, Federal Research Institute for Animal Health

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	AKS_Eintrag_2007.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
flexible accreditation: ELISA (marker and conventional) on blood and milk samples, SNT	ILAC MRA
flexible accreditation: VI, IFA, NA extraction and PCR	ILAC MRA
flexible accreditation: RFLP	ILAC MRA

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
Ringtrial	Harmonization of diagnostic tests	APHA, Weybridge, UK

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
Organisation: evaluation of the proficiency test 2019 antibody detection (blood and milk); virus detection by VI and PCR	approx. 50	☐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)
European Expert Group to discuss Delegated Acts on IBR: Supporting documents to discuss the delegated act on surveillance, eradication programmes and disease free status for terrestrial animals - AHL, Brussels; official consultation	remote (E mail, phone)	harmonisation and standardisation of definitions, diagnostic methods and schemes within the European Union in accordance with OIE standards

25. Additional comments regarding your report:

The OIE laboratory is acting as test laboratory for test authorisation(3 test systems) and batch release (36 batches in 2020) in Germany.