OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-01-25 16:13:27

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Peste des petits ruminants
Address of laboratory:	Ash Road, Pirbright Woking, Surrey, GU24 0NF UNITED KINGDOM
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Website:	https://www.pirbright.ac.uk/our-science/vector-borne-viral-diseases/non-vesicular-disease-reference-laboratory
Name (including Title) of Head of Laboratory (Responsible Official):	Dr Bryan Charleston
Name (including Title and Position) of OIE Reference Expert:	Dr Michael Baron, Honorary Research Fellow
Which of the following defines your laboratory? Check all that apply:	Academic

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)

No

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
PPRV control positive sera	ELISA	Provide	0	12ml	4	☐Africa ☒Americas ☒Asia and Pacific ☐Europe ☒Middle East
PPRV antigen LFD kits	Antigen detection	Provide	0	12 kits (300 tests)	2	☒Africa ☐Americas ☒Asia and Pacific ☐Europe ☐Middle East
Inactivated antigen	ELISA	Provide	0	3ml	2	☐Africa ☒Americas ☒Asia and Pacific ☐Europe ☒Middle East
MAb	ELISA, IF	Provide	0	3.5ml	3	☐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
UNITED STATES OF AMERICA	Ongoing advice and support for a study of PPRV transmission being carried out in Ethiopia by staff from Pennsylvania State University	Zoom meetings and email
NORTH MACEDONIA (REP. OF)	advise on accreditation of PPRV Real-time RT-PCR	Skype and 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
Sequencing of PPRV genome	3 months	Full genome sequencing of recent Turkish isolate of PPRV	Etlik Veterinary Control Central Research Institute, Virological Research and Diagnostic Laboratory, Ankara, Turkey	TURKEY
Role of cattle in transmission of PPRV	3 years	Measure transmission of PPRV (if any) from infected cattle	Penn State University (USA), NAHDIC(Ethiopia)	ETHIOPIA UNITED STATES OF AMERICA
IAEA: Veterinary diagnostic laboratory network (VETLAB network) to prevent and control transboundary diseases	5 years	Production of validated reagents. Building capacity for diagnostics	ANSES, IRAD,CSIRO,SENASA, LANAVET, CVI,LANADA,UKIM,ONSSA,NAHDIC, IAEA	ARGENTINA AUSTRALIA AUSTRIA CAMEROON COTE D'IVOIRE CROATIA ETHIOPIA FRANCE MOROCCO NORTH MACEDONIA (REP. OF) SUDAN UNITED KINGDOM
Development of multispecies validated serology protocols for complex ecosystems, focused on East Africa, in support of Global PPR eradication	18 months	Serological tests for wildlife	CIRAD, IAEA,SACIDs SUA, Tanzania Wildlife Research Institute, Kenya Wildlife Service	AUSTRIA FRANCE KENYA TANZANIA

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:
(see at 12)

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:
Genetic sequence data for PPRV isolates; information on clinical signs and distribution of disease in Northern Tanzania.

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: 3
Complete Genome Sequence of a Lineage IV Peste des Petits Ruminants Virus from Turkey, 2018.
Hacıoğlu S, King S, Çizmeci ŞG, Yeşil Ö, Flannery J, Baron MD, Batten C, Rajko-Nenow PZ. Microbiol Resour Announc. 2020 Apr 9;9(15):e01446-19. doi: 10.1128/MRA.01446-19

Characterisation of Peste Des Petits Ruminants Disease in Pastoralist Flocks in Ngorongoro District of Northern Tanzania and Bluetongue Virus Co-Infection.
Jones BA, Mahapatra M, Chubwa C, Clarke B, Batten C, Hicks H, Henstock M, Keyyu J, Kock R, Parida S. Viruses. 2020 Mar 31;12(4):389. doi: 10.3390/v12040389

Depletion of CD8+ T cells from vaccinated goats does not affect protection from challenge with wild-type peste des petits ruminants virus.
Baron MD, Hodgson S, Moffat K, Qureshi M, Graham SP, Darpel KE. Transbound Emerg Dis. 2020 Nov 22. doi: 10.1111/tbed.13936. Online ahead of print.

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/IEC17025	UKAS cert.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Real-time RT-PCR	UKAS
C-ELISA	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?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
PPR Global Eradication Programme 3rd PPR Global Research and Expertise Network (PPR GREN) meeting	11/2020	remote via video conference	Participant	n/a

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.
To strengthen and harmonise the ability of the laboratories to detect PPRV antibodies by competition ELISA and PPRV RNA by real-time and conventional RT-PCR assays	Participant	31	Organising OIE Ref lab - CIRAD, France

[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
Development of multispecies validated serology protocols for complex ecosystems, focused on East Africa, in support of Global PPR eradication	Serological tests for wildlife	CIRAD, France IAEA, Austria

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
To strengthen and harmonise the ability of the laboratories to detect PPRV antibodies by competition ELISA and PPRV RNA by real-time and conventional RT-PCR assays	31	☐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)
Provide expert knowledge as part of PPR-GEP Advisory Committee, June/July 2020	Zoom	Progress of PPR-GEP

25. Additional comments regarding your report:

“Question 1 : no diagnostic or confirmatory testing requested”