OIE Reference Laboratory annual reports (RINDERPEST)

Activities in 2020

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A: Maintaining Scientific and Technical Skills

1. Did your laboratory perform relevant diagnostic tests for purposes such as disease, diagnosis, screening of animals for export, surveillance, etc. (not for quality control, proficiency testing or staff training)

    a. For the specified disease? NO
    b. For closely related diseases or pathogens? NO

Disease	Diagnostic Test	Indicated in OIE Manual (Yes/No)	Total number of tests performed last year	
			Nationally	Internationally

2. Did your laboratory produce, supply, or import standard reference reagents officially recognised by the OIE for the specified disease or for closely related diseases? NO

Type of Reagent Available	Related diagnostic test	Produced/Supplied/Imported	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	Name of recipient OIE member countries

3. Did your laboratory supply, exchange or receive standard reference reagents and/or other diagnostic reagents for the specified disease YES

Type of reagent	Related diagnostic test	Supplied by your lab, exchanged or received	Amount	Name of recipient or supplier member country
Serum from RPV-infected cattle	Virus neutralisation test	Supplied	8 x 0.5ml	Japan

4. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country for the specified disease or for closely related diseases? YES

Name of the OIE member country receiving the technical consultancy	Purpose	How the advice was provided
United States of America	Ongoing support and advice for a study of PPRV transmission being carried out in Ethiopia by staff from Pennsylvania State University	Through Zoom meetings and email
North Macedonia (Rep. of)	Advise on accreditation of PPRV Real-time RT-PCR	Using Skype and email

5. What method of dissemination of information is most often used by your laboratory? (please provide information on activities for other diseases relevant to maintaining capability for specified disease) [a: Articles published in peer-reviewed journals; b: International conferences; c: National conferences; d: Other]

Information dissemination is primarily through peer-reviewed publications and at international and national conferences. Relevant events during 2020 were:

a) Articles published in peer-reviewed journals: 4

Full genome sequencing of archived wild type and vaccine rinderpest virus isolates prior to their destruction. King S, Rajko-Nenow P, Ropiak HM, Ribeca P, Batten C, Baron MD. Sci Rep. 2020 Apr 16;10(1):6563. doi: 10.1038/s41598-020-63707-z.

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.

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.

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.

(b) International conferences: None this year due to covid-19

(c) National conferences: 1

A talk was accepted for the Microbiology Society meeting in 2020, however due to COVID-19 the conference was cancelled. The abstract appears in their conference book.

6. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

☐ Yes ☒ No

7. Did your laboratory implement activities to ensure ongoing capability for the designated disease or closely related disease in the event of loss of the key staff including the OIE Reference Expert?

Activity	Description
Succession planning	The Pirbright Institute has an ongoing process for identifying potential replacements for designated experts

Diagnostic capacity maintenance	The Reference Laboratory ensures that more than one member of the team is competent to perform relevant diagnostic assays in line with ISO/IEC 17025. The laboratory participates in PT schemes for numerous transboundary diseases. All PCR diagnostic assays are performed utilising the same nucleic acid extraction and PCR instruments.

B: Laboratory Systems

8. Does your laboratory have a Quality Management System certified according to an International Standard? If YES indicate the name of the quality management system adopted or currently in place. Also attach a scanned certificate of the system.

YES.
ISO/IEC17025

9. Is your laboratory accredited by an international accreditation body? If 'yes' indicate test for which your laboratory is accredited and name of the accreditation body.

YES.
Reverse-transcription-real-time PCR (RT-qPCR) for rinderpest virus, accredited by UKAS.

10. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned?

☒ Yes ☐ No

11. Does your laboratory have a biosecurity system in place to ensure security for the pathogen and materials that may contain the infectious pathogen?

☒ Yes ☐ No

C: Capability to Respond to a Suspected Case

12. In the last year, did your laboratory perform diagnostic tests for the specified pathogen and the disease in order to confirm ongoing capability? NO, our UKAS accreditation allows us to deem competence through intermittent RPV-specific PT schemes and maintaining capability in PPRV diagnostics.

Diagnostic Test	Indicated in OIE Manual (Yes/No)	Total number of tests performed last year

13. Did your laboratory produce vaccines for the specified disease or similar diseases? NO

Disease	Amount supplied nationally or internationally

14. Did your laboratory organise or participate in inter-laboratory proficiency tests with any other laboratories for the specified disease or similar diseases? YES

Role of your laboratory (organiser or participant)	Disease	Test	Number of participating laboratories	Regions of participating OIE member countries
Participant	PPR	C-ELISA & real-time RT-PCR	31	Asia&Pacific/Europe/Middle East

D: Networks and Linkages

15. Did your laboratory organise or participate in scientific meetings for the specified disease? NO - No such meetings this year

Title of event	Date	Location	Role (Organiser, speaker, presenter)	Title of work presented

16. Did your laboratory exchange information with other OIE Reference Laboratories designated for the same pathogen or disease?

☒ Yes ☐ No

17. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease?

☒ Yes ☐ No

18. Did your laboratory place expert consultants at the disposal of the OIE?

☒ Yes ☐ No

19. Did your laboratory carry out activities to raise awareness and improve capability for this disease in other member countries? NO

Description of activity	Date	Member countries

E: Biosafety

20. What level of biocontainment is used in your laboratory for (a) storage and (b) handling of potentially infectious material for the specified disease?

All storage and handling of potentially infectious material for rinderpest is handled under the biocontainment specified for Level 4 (highest level) of the UK Specified Animal Pathogens Order 2008. This involves Level 4 environmental protection. Rinderpest virus containing materials are stored in a designated locked compartment in a secure freezer room (swipe card access only) in a high security restricted-access laboratory building.

21. Does your laboratory maintain a structured risk assessment for work with potentially infectious material for the specified disease?

☒ Yes ☐ No

22. Was your laboratory's risk assessment for work with potentially infectious material reviewed in the past year?

☐ Yes ☒ No

23. Does your laboratory have an emergency response plan for biosafety incidents involving potentially infectious material for the specified disease?

☒ Yes ☐ No

F: Research

24. Did your laboratory develop new diagnostic methods for the designated pathogen or disease, or a similar disease? NO

Disease	Diagnostic Method	Description

25. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than your own? YES (for related disease)

Title of study	Duration	Purpose of 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
Development of multispecies validated serology protocols for complex ecosystems, focused on East Africa, in support of Global PPR eradication	1.5 years	Serological tests for PPR in wildlife	CIRAD, IAEA,SACIDs SUA, Tanzania Wildlife Research Institute, Kenya Wildlife Service	AUSTRIA FRANCE KENYA TANZANIA

26. 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 or a similar pathogen? YES

Title of 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 PPR in wildlife	CIRAD, France; IAEA, Austria

27. Additional comments regarding your report (if any):

It is not always clear where you want information about the specified disease only, or whether a similar disease should be also considered, e.g. why is "closely related disease" considered for Q2 and Q4, but not Q3, or similarly for Q24 and Q26, but not Q25?

If there is a question with a YES/NO answer, there should be a YES/NO check box or answer box as well as the table to collect details in the event of a YES reply. This helps the user ensure that they have answered all the questions, and that an empty table does not just mean that a question was missed.

Certificate of Accreditation

The Pirbright Institute

Testing Laboratory No. 4025

Is accredited in accordance with International Standard ISO/IEC 17025:2017 – General Requirements for the competence of testing and calibration laboratories.

This accreditation demonstrates technical competence for a defined scope specified in the schedule to this certificate, and the operation of a management system (refer joint ISO-ILAC-IAF Communiqué dated April 2017). The schedule to this certificate is an essential accreditation document and from time to time may be revised and reissued.

The most recent issue of the schedule of accreditation, which bears the same accreditation number as this certificate, is available from www.ukas.com.

This accreditation is subject to continuing conformity with United Kingdom Accreditation Service requirements.

Matt Gantley, *Chief Executive Officer*
United Kingdom Accreditation Service

Initial Accreditation: 13 October 2009
Certificate Issued: 9 December 2019

Scan QR Code to verify

UKAS is appointed as the sole national accreditation body for the UK by The Accreditation Regulations 2009 (SI No 3155/2009) and operates under a Memorandum of Understanding (MoU) with the Department for Business, Energy and Industrial Strategy (BEIS).