

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 16 juillet 2024 14:34

Laboratory Information

Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Peste des petits ruminants
Address of laboratory:	Ash Road, Pirbright Woking, Surrey, GU24 0NF
Tel.:	+44-1483 231344
E-mail address:	michael.baron@pirbright.ac.uk
Website:	https://www.pirbright.ac.uk/our-science/non-vesicular-reference-laboratory
Name (including Title) of Head of Laboratory (Responsible Official):	Prof Bryan Charleston, Institute Director
Name (including Title and Position) of WOA Reference Expert:	Dr Michael D Baron, Honorary Institute Fellow
Which of the following defines your laboratory? Check all that apply:	Research Institute

TOR1: DIAGNOSTIC METHODS

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

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOA?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA Members?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOA MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
PPRV pen-side(rapid) test kits	pen-side diagnosis	provided	16 kits (25 tests/kit)	5 kits (25 tests per kit)	2	BELGIUM, UNITED KINGDOM,
Positive control serum	cELISA	provided	1.5ml	6ml	3	BELGIUM, KOREA (REP. OF), UNITED KINGDOM,
ELISA antigen	cELISA	provided	1ml	5ml	3	BELGIUM, FRANCE, UNITED KINGDOM,
monoclonal antibody	cELISA	provided	2ml	19ml	3	BELGIUM, FRANCE, UNITED KINGDOM,
Nucleic acid (Lineages I, II, III and IV)	RT-PCR	provided	0	100µl of each type	1	PHILIPPINES,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA Members?

No

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

No

7. Did your laboratory validate diagnostic methods according to WOAHS Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOAHS Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAHS Members?

No

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAHS Member?

Yes

NAME OF THE WOAHS MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
KUWAIT	Discuss potential publication of data	Online conference call

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAHS Members other than the own?

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAHS MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Sequencing of the full genome of a new isolate of PPRV from Ethiopia	6 months	Sequencing of the full genome of a new isolate of PPRV from Ethiopia	Animal Health Institute, Sebeta Pennsylvania State university	ETHIOPIA UNITED STATES OF AMERICA

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAHS?

Yes

Research need : 1

Please type the Research need: There continues to be a lack of knowledge about the persistence of infectious PPRV in meat, fomites and the environment. A lot of our decisions about the risks posed by various products from potentially infected animals are guesswork. Educated guesswork, but guesswork nonetheless.

Relevance for WOAHS Disease Control, Standard Setting,

Relevance for the Codes or Manual Code,

Field Epidemiology and Surveillance,

Animal Category Terrestrial,

Disease:

Peste des petits ruminants

Kind of disease (Zoonosis, Transboundary diseases) Transboundary diseases,

If any, please specify relevance for Codes or Manual, chapter and title

(e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture)

Answer: Terrestrial Code Ch 14.7 Infection with peste des petits ruminants virus

Notes:

Answer:

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:

We have updated our database of curated PPRV sequences, all of which are linked to available geographic location data, much of which is culled from publications and/or these tracked down online. This database is made available through the WOAHP PPRV Reference Laboratory Network and is updated annually.

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:

The datasets described in 14 are made available through the web site of the WOAHP PPR Reference Laboratory Network. See also publication #2 below.

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

3

1. Tully M, Batten C, Ashby M, Mahapatra M, Parekh K, Parida S, Njeumi F, Willett B, Bataille A, Libeau G, Kwiatek O, Caron A, Berguido FJ, Lamien CE, Cattoli G, Misinzo G, Keyyu J, Mdetele D, Gakuya F, Bodjo SC, Taha FA, Elbasher HM, Khalafalla AI, Osman AY, Kock R. 2023. The evaluation of five serological assays in determining seroconversion to peste des petits ruminants virus in typical and atypical hosts. *Sci Rep* 13:14787.
2. King S, Baron MD, Kidane M, Aklilu F, Kapur V, Herzog CM, Batten C. 2023. Complete genome of a 2014 isolate of peste des petits ruminants virus from Ethiopia. *Microbiol Resour Announc* e0024223.
3. Crofts F, Al-Majali A, Gerring D, Gubbins S, Hicks H, Campbell D, Wilson S, Chesang L, Stuke K, Cordel C, Parida S, Batten C. 2023. Evaluation of a novel liquid stabilised peste des petits ruminants vaccine: Safety and immunogenic efficacy in sheep and goats in the field in Jordan. *Vaccine: X* 15:100363.

b) International conferences:

1

Baron, M.D. et al. Long-term trial of protection provided by recombinant adenovirus-vectored vaccine expressing the H protein of PPRV. Presented at 6th Annual GREN meeting, Bangalore, India, November 2023

c) National conferences:

d) Other (Provide website address or link to appropriate information):

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAHP Members?

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted

Certificate scan (PDF, JPG, PNG format)

ISO/IEC 17025

PDF

4025UKAS Cert.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
competition ELISA	UKAS
real-time RT-PCR(method of Batten et al)	UKAS
real-time RT-PCR(method of Flannery et al)	UKAS

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

Yes

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAHP?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAHP?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
10th Eastern Africa and IGAD regional PPR eradication co-ordination and PPR Blueprint	2023-05-03	virtual	speaker	PPR diagnostics and sequencing

TOR10: NETWORK WITH WOAHP REFERENCE LABORATORIES

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

Yes

24. Do you network (collaborate or share information) with other WOAHP Reference Laboratories designated for the same pathogen?

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS
WOAHP PPR Reference Laboratory network	Participant, member of the secretariat	24	The Pirbright Laboratory, UK CIRAD, Montpellier, france CAHEC, Qingdao, China

25. Did you organise or participate in inter-laboratory proficiency tests with WOAHP Reference Laboratories designated for the same pathogen?

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS/ ORGANISING WOAHP REF. LAB.
Harmonisation of diagnostic tests for PPR	Participant	12	Organiser - CIRAD, France

26. Did your laboratory collaborate with other WOAHP Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

No

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAHP Reference Laboratories for the same pathogen?

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the Test	WOAHP Member Countries
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Harmonisation of diagnostic tests for PPR	Participant	12	real-time RT-PCR and cELISA	ARMENIA, AZERBAIJAN, FRANCE, INDIA, KOREA (REP. OF), MOROCCO, NIGERIA, SAUDI ARABIA, SOUTH AFRICA, SWITZERLAND, UNITED ARAB EMIRATES, UNITED KINGDOM,
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TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOA?H?

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Participation in PPR Ad Hoc Group	Virtual	Applications by members for recognition by WOA?H of their PPR-free status or endorsement of their PPR eradication programme
Expert opinion	written contribution	Providing feedback to WOA?H regarding the specification of WOA?H-approved reagents

29. Additional comments regarding your report:

No