

WOAH Reference Laboratory Reports Activities 2025

This report has been submitted: 10 mars 2026 04:06

LABORATORY INFORMATION

*Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory:	Peste des petits ruminants
*Address of laboratory:	21 Aodongnan Road, Qingdao, Shandong, China
*Tel:	+8653285639166
*E-mail address:	zlwang111@163.com
Website:	
*Name (including Title) of Head of Laboratory (Responsible Official):	Zhiliang Wang (Dr., Deputy Director-in-General of China Animal Health and Epidemiology Center)
*Name (including Title and Position) of WOAHO Reference Expert:	Zhiliang Wang (Dr., Deputy Director-in-General of China Animal Health and Epidemiology Center)
*Which of the following defines your laboratory? Check all that apply:	Research agency

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)

Yes

Diagnostic Test	Indicated in WOAHO Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
ELISA	Yes	15935	0
Direct diagnostic tests			
Real-time RT-PCR	Yes	16580	0

TOR2: REFERENCE MATERIAL

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

No

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

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHO Members?

TOR3: NEW PROCEDURES

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

Yes

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

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Yes

Name of the new test or diagnostic method developed	Description and References (Publication, website, etc.)
RT-qPCR	Xu J, Wang Q, Yu J, Wang Y, Li H, Li L, Bao J, Wang Z. Detection of Lineage IV Peste Des Petits Ruminants Virus by RT-qPCR Assay via Targeting the Hemagglutinin Gene, 2025. <i>Viruses</i> . 17(7): 976. Xu J, Zhao Y, Li H, Wang Q, Yu J, Wang Y, Bao J, Wang Z. A phosphoprotein gene RT-qPCR assay to detect all lineages peste des petits ruminants virus, 2025. <i>Front Microbiol</i> . 16:1638778.

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

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

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

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

No

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:

Global Distribution and Genetic Characterization of PPRV, sourced from WAHIS, EMPRES-i, Published research paper, international meetings, etc.

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:

Global Distribution and Genetic Characterization of PPRV, disseminated by MARA website, CAHEC website, Research paper, international/national meetings, Wechat official account.

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:

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Bao J Y, Jiang R Y, Wang S J, et al. Genomic characterization and evolution analysis of peste des petits ruminants virus in China from 2007 to 2024. *Frontiers in Microbiology*. 2025, 16: 1697536

Xu J, Wang Q, Yu J, Wang Y, Li H, Li L, Bao J, Wang Z. Detection of Lineage IV Peste Des Petits Ruminants Virus by RT-qPCR Assay via Targeting the Hemagglutinin Gene, 2025. *Viruses*. 17(7): 976.

Xu J, Zhao Y, Li H, Wang Q, Yu J, Wang Y, Bao J, Wang Z. A phosphoprotein gene RT-qPCR assay to detect all lineages peste des petits ruminants virus, 2025. *Front Microbiol*.

16:1638778.

b) International conferences:

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[1] 8th meeting of the peste des petits ruminants global research and expertise network (PPR GREN) meeting, Sep 19, 2025

[2] WOAHP reference LAB network workshop, Dec 17, 2025

c) National conferences:

2

[1] National conference for major exotic animal diseases surveillance and epidemiological investigation, Jun, 27, 2025

[2] National conference for on the Epidemiological Situation of Major Diseases in Herbivores, Dec, 11, 2025

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

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[1] <http://www.xmsyj.moa.gov.cn/yqfb/>

[2] <https://www.cahec.cn>

[3] WeChat Official Account

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

a) Technical visit : 0

b) Seminars : 0

c) Hands-on training courses: 1

d) Internships (>1 month) 0

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
C	INDONESIA	1
C	MONGOLIA	1
C	MALAYSIA	1
C	NEPAL	1
C	CAMBODIA	1
C	PAKISTAN	1

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO 17025	1	17025认可证书有效期至2030年.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
PPRV RT-PCR	China National Accreditation Service for Conformity Assessment (ilac-MRA, APLACMRA)

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PPRV qRT-PCR	China National Accreditation Service for Conformity Assessment (ilac-MRA, APLACMRA)
PPRV block-ELISA	China National Accreditation Service for Conformity Assessment (ilac-MRA, APLACMRA)
PPRV virus isolation	China National Accreditation Service for Conformity Assessment (ilac-MRA, APLACMRA)

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

Yes

The experiments related to PPRV are conducted in ABSL-3 laboratory(CNAS BL0008,CNAS-CL 05:2009)

TOR9: SCIENTIFIC MEETINGS

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

Yes

National/ International	Title of event	Co-organiser	Date	location	No. Participants
International	8th PPR Global Research and Expertise Network (PPR-GREN)	WOAH RRAP	2025-11-24	Qingdao, China	40

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

Yes

Title of event	Date	location	Role (speaker, presenting poster, short communications)	Title of the work presented
China, Mongolia, and Central Asia Epizootic Workshop for PPR	2025-03-31	Mongolia	Speaker	PPR national situation of China

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. Are you a member of a network of WOAHP Reference Laboratories designated for the same pathogen?

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS
WOAH PPR RL network	Co-organiser	14	CIRAD, PIRBRIGHT, ICAR-NIVEDI

25. Did you organise or participate in inter-laboratory proficiency tests with WOAHP Reference Laboratories designated for the same pathogen during the past 2 years?

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAHP Ref. Labs/ organising WOAHP Ref Lab
PPRV Pathogen and Antibody Proficiency Testing	participant	/	CIRAD, PIRBRIGHT, ICAR-NIVEDI

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 during the past 2 years?

Yes

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Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Harmonising existing test methods	organizer	5	Real-time RT-PCR for PPRV	CHINA (PEOPLE'S REP. OF),
Harmonising existing test methods	organizer	5	ELISA for PPRV antibody detection	CHINA (PEOPLE'S REP. OF),

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
Attendance at WOA?H ad hoc Group meeting on PPR	Virtually	Work on selected issues under Chapter 14.7. 'Infection with peste des petits ruminants visur' of the Terrestrial Animal Health Code

29. Additional comments regarding your report:

No