

WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 10 mars 2023 12:07

Laboratory Information

Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	peste des petits ruminants
Address of laboratory:	Campus International de Baillarguet TA A-15/G 34398 Montpellier Cedex 5 FRANCE
Tel.:	+33 (0)4 67 59 37 98
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Website:	https://umr-astre.cirad.fr/
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Nathalie Vachier
Name (including Title and Position) of WOA Reference Expert:	Dr. Arnaud Bataille, researcher virologist
Which of the following defines your laboratory? Check all that apply:	EPIC (entreprise public à intérêts commerciaux)

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 WOA Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
Direct diagnostic tests			
RT-PCR	Yes		10
RT-qPCR	Yes	8	42
Partial sequencing	Yes		

			10
Full sequencing	Yes	8	10

TOR2: REFERENCE MATERIAL

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

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA?H 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?H MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Cells (Vero, VDS, CHS)	Isolation	provide		3x25ml	2	Africa MiddleEast
PPR positive goat serum	ELISA	produce/provide		2ml	3	Africa Europe
live Wild PPRV strain (2 strains)	live infection experiment	produce/provide		20 x 1 ml	1	Europe
inactivated PPRV strain	PCR controls	produce/provide		2ml		Europe
monoclonal antibody	immunohisto, flow cytometry	provide		1ml		Europe

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA?H Members?

Yes

VACCINE NAME	AMOUNT SUPPLIED NATIONALLY	AMOUNT SUPPLIED NATIONALLY (ML, MG)	NAME OF RECIPIENT WOA?H MEMBERS
PPRV vaccine strain Nigeria 75/1	10 vials of 2ml	10 vials of 2ml	NIGERIA

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 WOA?H 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 WOA?H Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOA Member?

Yes

NAME OF WOA MEMBER COUNTRY SEEKING ASSISTANCE	DATE	WHICH DIAGNOSTIC TEST USED	NO. SAMPLES RECEIVED FOR PROVISION OF DIAGNOSTIC SUPPORT	NO. SAMPLES RECEIVED FOR PROVISION OF CONFIRMATORY DIAGNOSES
SENEGAL	2022-05-01	RT-qPCR, RT-PCR		32
THAILAND	2022-02-01	RT-qPCR, RT-PCR, partial and full genome seq		9
SPAIN	2022-11-01	full genome seq		2

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

Yes

NAME OF THE WOA MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
THAILAND	confirmatory diagnosis	email exchanges
SUDAN	PPR diagnostic on camels	Direct exchanges during PPR GREN and by email
UNITED ARAB EMIRATES	PPR diagnostic on camels	Direct exchanges during PPR GREN and by email
DJIBOUTI	confirmatory diagnosis	email exchanges
MONGOLIA	PPR vaccine production and training offers	exchanges during PPR GREN
NIGERIA	PPR vaccine production and training offers	Within the frame of a EU-funded collaborative project
PAKISTAN	PPR vaccine production and training offers	Direct exchanges during PPR GREN and by email
INDIA	PPR vaccine production and training offers	Direct exchanges during PPR GREN
TURKEY	PPR vaccine production and training offers	Direct exchanges during PPR GREN
CHAD	Possibility of collaboration with IRED for capacity building in animal disease diagnostic	Visit at CIRAD

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAH MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Livestock Disease Surveillance Knowledge Integration (LIDISKI)	4 years	Improving surveillance and control of PPR in Nigeria	CIRAD, IZSve, Ikore, NVRI	ITALY NIGERIA

Epidemiology and Control of Peste des Petits Ruminants (ECO-PPR)	3 years	to inform and support ongoing national, regional and global efforts for PPR control and eradication by generating the necessary evidence to support policy dialogue.	ILRI ISRA LCV CIRDES	BURKINA FASO MALI SENEGAL
Study of virulence of peste des petits ruminants virus in relation to variability of host response	3 years	Study of virulence of peste des petits ruminants virus in relation to variability of host response	IVI	SWITZERLAND
Support Towards the Operationalization of the SADC Regional Agricultural Policy (STOSAR)' Project	2.5 years	Specialized services for risk analysis, training and sample testing for the management of PPR	FAO, SADC countries	ANGOLA BOTSWANA COMOROS ESWATINI LESOTHO MADAGASCAR MOZAMBIQUE SEYCHELLES SOUTH AFRICA TANZANIA ZAMBIA
WOAH twinning LNERV-CIRAD	2 years	Support LNERV to become regional ref lab for PPR	LNERV	SENEGAL
SPIDVAC	4 years	development of innovative vaccines	FLI, LNERV, IDvet	GERMANY SENEGAL
RFOROA One health	1 year	diagnostic support	IREC, Smithsonian Institute	CHAD UNITED STATES OF AMERICA

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:

1) genetic diversity and evolution of lineage IV in West Africa; 2) quality of vaccines produced and distributed; 3) Variability in immune response to PPR; 4) quality of PPRV sequence data published

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:

1) genetic diversity and evolution of lineage IV in West Africa; 2) quality of vaccines produced and distributed; 3) Variability in immune response to PPR; 4) quality of PPRV sequence data published

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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Eloiflin RJ, Grau-Roma L, Python S, Mehinagic K, Godel A, Libeau G, Summerfield A, Bataille A, García-Nicolás O (2022) Comparative pathogenesis of peste des petits ruminants virus strains of difference virulence. Vet Res. 53:57.

Baron MD, Bataille A (2022) A curated dataset of peste des petits ruminants virus sequences for molecular epidemiological analyses. PLOS ONE. 17:e0263616.

Kwiatek O, Libeau G, Guendouz S, Corbanini C, Gogin A, Lunitsin A, Sindryakova I, Koblasov D, Bataille A (2022) Genomic characterization of peste des petits ruminants vaccine seed "45G37/35-k", Russia. Veterinary Research. 53:79.

b) International conferences:

3

Epizone meeting, Barcelona; Identification of differential immune responses to PPRV virulence in infected goats using a multi-omics approach.

EVBC virtual, Evolutionary history of peste des petits ruminants virus

PPR GREN, curation of PPRV sequence data

c) National conferences:

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

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1. <https://eurl-ppr.cirad.fr/>

2- <https://www.ppr-labs-oie-network.org/>

3- *Etude in vitro de l'infection des monocytes, cellules dendritiques et macrophages de mouton par le virus de la peste des petits ruminants. Manon Chambon 2022. Master thesis, Montpellier University*

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

a) Technical visit :

b) Seminars : 80

c) Hands-on training courses: 7

d) Internships (>1 month)

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
b	SADC countries	38
b	North African countries	30
b	Senegal	2

c	Senegal	2
c	Greece	1
c	Croatia	1
c	Mauritania	1
c	Sudan	1

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
COFRAC	certificat d'accréditation.pdf	certificat d'accréditation.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
ELISA, PCR	COFRAC

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 WOA?

Yes

NATIONAL/ INTERNATIONAL	TITLE OF EVENT	CO-ORGANISER	DATE (MM/YY)	LOCATION	NO. PARTICIPANTS
International	annual workshop of the WOA network for PPR ref lab	PI, CAHEC	2022-12-01	online	25
International	PPR GREN annual meeting	FAO, WOA	2022-12-09	Montpellier (hybrid meeting)	140

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

No

TOR10: NETWORK WITH WOA REFERENCE LABORATORIES

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

Yes

24. Are you a member of a network of WOA 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.
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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.
serology , virology	organiser + participant	38	Pirbright Institute (participating)

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?

Yes

TITLE OF THE PROJECT OR CONTRACT	SCOPE	NAME(S) OF RELEVANT WOAHP REFERENCE LABORATORIES
PPRV sequence curation	PPRV sequence curation	Pirbright Institute
Organisation of the network of OIE ref lab for PPR	Organisation of the network of OIE ref lab for PPR	Pirbright Institute, CAHEC

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	Region(s) of participating WOAHP Member Countries
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Serology, virology	organiser and participant	38	Africa Asia and Pacific Europe MiddleEast
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TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Attendance at the PPR Ad hoc meeting o	online	

29. Additional comments regarding your report: