WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 17 mai 2024 09:16

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Lumpy skin disease
Address of laboratory:	Ash road
Tel.:	+44-1483 23.24.41
E-mail address:	georgina.limon-vega@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 WOAH Reference Expert:	Dr Georgina Limon-Vega, Epidemiologist
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)

Yes

Diagnostic Test	Indicated in WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
ELISA		1	0
SNT		0	50
Direct diagnostic tests		Nationally	Internationally
Real time PCR		2	1

TOR2: REFERENCE MATERIAL

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

No

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

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAH MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Positive bovine serum	ELISA/SNT	Provided	0	2ml	1	KOREA (REP. OF),
Nucleic acid	PCR	Provided	0	200ul	2	IRELAND, PHILIPPINES,

4. Did your laboratory produce vaccines?

Not applicable

5. Did your laboratory supply vaccines to WOAH Members?

Not applicable

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 WOAH 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 WOAH Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

NAME OF WOAH 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
ISRAEL	2023-03-01	Real time PCR	0	1

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

Yes

NAME OF THE WOAH MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
ISRAEL	Discuss sequencing results	email
IRELAND	Differential diagnostics of capripox viruses	email
INDONESIA	Potential face to face training and e learning provision	Email/online conference calls
AUSTRALIA	Discuss ongoing research projects, areas of collaboration	Face to face/email/conference calls
IRAN	Availability of vaccine seeds/strains	email
PAKISTAN	Availability of vaccine seeds/strains	Email / conference call
INDIA	Availability of vaccine seeds/strains	email
INDIA	Areas for collaboration – grant formation	Face to face/email/conference calls
AUSTRALIA	Availability of sera for PT panels	Email
PORTUGAL	Validation data for Bowden et al PCR assay	Email

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH 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
			The Pirbright Institute, Sciensano, The Friedrich Loeffler Institute (FLI) Sveriges Lantbruksuniversitet (SLU) Istituto Zooprofilattico Sperimentale Della Lombardia ed Emilia Romagna (IZSLER) Agricultural Research Council (ARC) Istituto Universitario	

Addressing the dual emerging threats of African Swine Fever and Lumpy Skin Disease in Europe (DEFEND)	5 years	To control the growing LSD and ASF epidemics in Europe and neighbouring countries by understanding the drivers of LSDV and ASFV emergence, and by generating research outputs which underpin novel diagnostic tools and vaccines, and authenticate appropriate and rapid responses by decisionmakers	Europeo (MPC) Veterinarians san Frontieres International (SIVtro VSF ITALIA) ZOETIS IDVet Klifovet AG University of Pretoria (UP) Canadian Food Inspection Agency (CFIA) CSIRO Ministry of Rural Development and Food (MINAGRIC) Athens Veterinary Centre (AVC) The Jenner Institute for Vaccine Research, University of Oxford (UOXF) State Food and Veterinary Service (SFVS) Republican Veterinary Laboratory (RVL) Ministry of Agriculture, Rural Development and Water Management (MINA) Diagnostic Veterinary Laboratory (DVL) Institute for Diagnosis and Animal Health (IDAH) Central Veterinary Authority (ANSVSA) Bulgarian Food Safety Agency (BFSA) Ministry of Agriculture and Food (MAF) SS. Cyril and Methodius University Skopje (SSU) Istanbul University (IU) Ministry of Food Agriculture and Livestock (MFAL) Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA) Veterinary Specialized institute Kraljevo (VSI-K) Scientific Veterinary Institute Novi Sad (NIV-NS)	ALBANIA AUSTRALIA AZERBAIJAN BELGIUM BULGARIA CANADA FRANCE GERMANY GREECE ITALY LITHUANIA MONTENEGRO NORTH MACEDONIA (REP. OF) ROMANIA SERBIA SPAIN SWEDEN TURKEY UNITED KINGDOM
Best practice' for Next Generation Sequencing (NGS) of Capripox viruses	1 year	Next Generation Sequencing protocols	Sciensano Australian centre for disease prepardness	AUSTRALIA BELGIUM
Immunogenicity following simultaneous vaccination of Foot-and-Mouth Disease and Lumpy Skin Disease in indigenous cattle in Nigeria	1 year	Serological response to LSDV vaccine	The National Veterinary Research Institute (NVRI)	NIGERIA

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

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:
analysis of sequence data from 2022 submissions is ongoing and will be published when available

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

No

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:

1
Estimating the transmission kernel for Lumpy skin disease virus from data on outbreaks in Thailand in 2021. Punyapornwithay, V., Salvador, R., Modethed, W., Arjkumpa, O., Jarassaeng, C., Limon, G., Gubbins, S. (2023), Viruses. https://doi.org/10.3390/v15112196

b) International conferences:

2
FAO LSDV symposium in Rome 13 – 15th March.
DEFEND final workshop, Belgium 2nd – 4th October 2023

c) National conferences:

0

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 WOAH Members?

Yes

a) Technical visit : 1

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	KUWAIT	9
C	BHUTAN	1
C	PAKISTAN	1
C	BRUNEI	2
C	LAOS	1
C	THAILAND	1
C	NEPAL	1
C	VIETNAM	1
C	UNITED ARAB EMIRATES	1
C	OMAN	1
C	JORDAN	1
C	INDONESIA	1
C	SRI LANKA	1
C	MONGOLIA	1
C	PHILIPPINES	1
C	IRAN	2
C	SYRIA	1
C	PALESTINIAN AUTON. TERRITORIES	1
A	AUSTRALIA	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	Certificate	4025UKAS Cert.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Real-time PCR (Bowden et al)	UKAS
ELISA	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 WOAH?

No

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

No

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

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

No

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

No

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

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOAH REF. LABS/ ORGANISING WOAH REF. LAB.
Evaluate the ability of the participating laboratories to identify the absence or presence of antibodies to capripox (CAPX) viruses in serum of ruminants and/or to assess the ability of the participating laboratories to detect CAPX virus DNA in different matrices	Participant	33	Belgium

26. Did your laboratory collaborate with other WOAH 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 WOAH REFERENCE LABORATORIES
Addressing the dual emerging threats of African Swine Fever and Lumpy Skin Disease in Europe (DEFEND)	To control the growing LSD and ASF epidemics in Europe and neighbouring countries by understanding the drivers of LSDV and ASFV emergence, and by generating research outputs which underpin novel diagnostic tools and vaccines, and authenticate appropriate and rapid responses by decision-makers	South Africa - ARC (Agricultural Research Council)
Best practice' for Next Generation Sequencing (NGS) of Capripox viruses	Next generation sequencing protools	Belgium - Sciensano

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

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

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the Test	WOAH Member Countries
Evaluate the ability of the participating laboratories to identify the absence or presence of antibodies to capripox (CAPX) viruses in serum of ruminants and/or to assess the ability of the participating laboratories to detect CAPX virus DNA in different matrices	Participant	33		ALBANIA, AUSTRALIA, AUSTRIA, BELGIUM, CROATIA, CYPRUS, CZECH REPUBLIC, DENMARK, FINLAND, FRANCE, GERMANY, GREECE, HUNGARY, IRELAND, ITALY, KOREA (REP. OF), LATVIA, LITHUANIA, MALTA, MOLDOVA, MONTENEGRO, NORTH MACEDONIA (REP. OF), POLAND, PORTUGAL, ROMANIA, SERBIA, SLOVAKIA, SLOVENIA, SPAIN, THE NETHERLANDS, TURKEY, UNITED KINGDOM,

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Review of LSDV vaccine section in LSDV chapter	Remote	LSDV vaccines

29. Additional comments regarding your report:

Yes

Dr Carrie Batten attended and presented at the FAO LSDV symposium in Rome 13 – 15th March.
The LSDV expert Georgina Limon – Vega was appointed in October 2023.
Dr Batten and Limon-Vega have been reviewing GB risk assessments for trade.
The Pirbright institute has invested resource into preparing BVDV free stocks of capripoxvirus reference strains – ongoing.
We continue to make our large collection of capripoxviruses and related reagents available on request.