World Organisation for Animal Health

Nick De Regge - -

WOAH Reference Laboratory Reports Activities 2024

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LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Sheep pox and goat pox
***Address of laboratory:**	Groeselenberg 99, 1180 Uccle
***Tel:**	+3223790627
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Website:	https://www.sciensano.be/en
***Name (including Title) of Head of Laboratory (Responsible Official):**	Prof. Nick De Regge
***Name (including Title and Position) of WOAH Reference Expert:**	Prof. Nick De Regge; head of the service Exotic and vector-borne diseases
***Which of the following defines your laboratory? Check all that apply:**	Governmental

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
Direct diagnostic tests		Nationally	Internationally
pan capripox PCR, SPPV specific PCR, SPPV DIVA PCR, partial sequencing, whole genome sequencing	Yes	5	75

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
inactivated capripox virus	pan-capripox virus PCR; SPPV specific PCR	in our BLS3 lab, starting from material form experimentally infected animals	0	2ml	2	CROATIA, UNITED KINGDOM,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAH Members?

No

TOR3: NEW PROCEDURES

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

Yes

Name of the new test or diagnostic method developed	Description and References (Publication, website, etc.)
SPPV DIVA	a new SPPV DIVA PCR is under development that can differentiate the Bakirkoy vaccine strain from wild type strains

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
		pan-capripox PCR, SPPV		

GEORGIA	2024-01-31	DIVA, whole genome sequencing	0	3
GREECE	2024-09-03	pan-capripox PCR, SPPV DIVA, whole genome sequencing	0	3
BULGARIA	2024-10-01	pan-capripox PCR, SPPV DIVA, whole genome sequencing	0	5
MONGOLIA	2024-11-05	pan-capripox PCR, SPPV DIVA, whole genome sequencing	0	3
NIGERIA	2024-09-09	pan-capripox PCR, SPPV DIVA, whole genome sequencing	50	0

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
MONGOLIA	information about SPPV vaccination/vaccines	via email exchange

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

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

Yes

Research need : 1

Please type the Research need: risk of SPPV transmission by sperm; SPPV persistence in different biological matrices and impact of production processes on infectiousness of the virus

Relevance for WOAH Disease Control, Standard Setting,

Relevance for the Code or Manual Code, Manual,

Field Epidemiology and Surveillance,

Animal Category Terrestrial,

Disease:

Sheep pox and goat pox

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:

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:
WGS of strains responsible for SPPV outbreaks in Greece, Georgia and Bulgaria

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:
WGS of SPPV strains were published in a scientific publication (see further)

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:

2

Sheeppox virus genome sequences from the European outbreaks in Spain, Bulgaria, and Greece in 2022-2024.
Breman FC, Haegeman A, Philips W, Krešić N, Hoffman S, De Keersmaecker SCJ, Roosens NHC, Agüero M, Villalba R, Miteva A, Ivanova E, Tasioudi KE, Chaintoutis SC, Kirtzalidou A, De Regge N.
Arch Virol. 2024 Oct 30;169(11):234. doi: 10.1007/s00705-024-06165-6.

Lessons Learned from Active Clinical and Laboratory Surveillance during the Sheep Pox Virus Outbreak in Spain, 2022-2023.
Villalba R, Haegeman A, Ruano MJ, Gómez MB, Cano-Gómez C, López-Herranz A, Tejero-Cavero J, Capilla J, Bascuñan MV, De Regge N, Agüero M.
Viruses. 2024 Jun 27;16(7):1034. doi: 10.3390/v16071034.

b) International conferences:

2

presentations at the EURL annual meeting, and during the EuFMD open session

c) National conferences:

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

3
presentations during training activities like FAO VLC on SPPV/GTPV and BTSF training for SPPPV/GTPV (Valencia and Madrid)

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 : 0

b) Seminars : 4

c) Hands-on training courses: 0

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
B	BELGIUM	50
B	SPAIN	35
B	BULGARIA	35
B	ITALY	100

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
17025	see LSDV report	
17043	see LSDV report	

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
pan-capripox virus PCR, SPPV isolation, capripox virus ELISA	BELAC, ISO17025, ISO17043

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

Yes

Contained use approval for work with capripox viruses under BSL3 conditions from the 'Leefmilieu Brussel'

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 during the past 2 years?

No

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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?

No

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 during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
capripox virology and serology	organizer	50	capripox ELISA, VNT, IPMA; capripox PCR (pan, species-	ALBANIA, THE NETHERLANDS - ARUBA, AUSTRALIA, AUSTRIA, BELGIUM, BOSNIA AND HERZEGOVINA, BULGARIA, CROATIA, CYPRUS, CZECH REPUBLIC, DENMARK, ESTONIA, FINLAND, FRANCE, GEORGIA, GERMANY, GREECE, HUNGARY, IRELAND, ITALY, KAZAKHSTAN, KOSOVO, LITHUANIA,

	specific, DIVA)	LUXEMBOURG, MOLDOVA, MONTENEGRO, NORTH MACEDONIA (REP. OF), NORWAY, POLAND, PORTUGAL, ROMANIA, SERBIA, SLOVAKIA, SLOVENIA, SPAIN, SWEDEN, SWITZERLAND, THE NETHERLANDS, TURKEY, UKRAINE, 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 the SPPV/GTPV vaccine chapter in the terrestrial manual	online	SPPV/GTPV vaccines
evaluate the impact of modification in the vaccine part to the WOAH code on SPPV/GTPV	online	SPPV/GTPV vaccines
expert group member for revision of the SPPV/GTPV code chapter	Paris	SPPV/GTPV code chapter

29. Additional comments regarding your report:

No