

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 13 juin 2024 15:38

Laboratory Information

Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Classical swine fever
Address of laboratory:	Institute of Agrifood Research and Technology (IRTA), Centre de Recerca en Sanitat Animal (CRESA), Edifici CRESA Campus de la Universitat Autònoma de Barcelona Bellaterra 08193 (Barcelona) SPAIN
Tel.:	+34-934 67 40 40 ext. 1786
E-mail address:	llilianne.ganges@irta.cat
Website:	https://www.irta.cat/ca/produccio-animal/sanitat-animal/ https://www.irta.cat/es/centre/irta-cresa/
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Josep Usall, General Director at IRTA
Name (including Title and Position) of WOA Reference Expert:	Dr. Lilianne Ganges, Head in the CSF WOA Reference Laboratory and Principal investigator at IRTA-CRESA,
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 WOA Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
ELISA: Classical swine fever virus (CSFV) Antibody test Kit (IDEXX)		253	0
Seroneutralization (NPLA Test)		1291	0
Direct diagnostic tests			
RT-qPCR for CSFV RNA detection (Hoffmann et al., 2005)		3732	0
Conventional RT-PCR (Vilcek et al., 1994)		25	0
Duplex ASF/CSF RT-qPCR		17	0

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

Reference RNA	RT-qPCR for CSFV specific RNA detection (Hoffmann et al., 2005)	Produced and Provided	0	10 samples of 0,1 mL each	1	COLOMBIA,
Reference sera inactivated	RT-qPCR for CSFV specific RNA detection (Hoffmann et al., 2005)	Produced and Provided	0	10 samples duplicates of 1ml each	1	COLOMBIA,
Reference sera Inactivated	ELISA: Classical swine fever virus (CSFV) Antibody test Kit (IDEXX) and Seroneutralization (NPLA Test)	Produced and Provided	0	10 samples of 1ml each	1	COLOMBIA,
anti-CSFV hyperimmune serum for the IPMA test	Virus isolation, virus titration and NPLA test	Produced and provided	0	10 mL	1	COLOMBIA,
CSFV Alfort 187 strain	RT-qPCR, virus isolation, virus titration and NPLA tests	Produced and provided	0	1 mL	1	COLOMBIA,
PK-15 cells	Virus isolation, virus titration and NPLA test	Produced and provided	0	3 tubes of 1 mL each	1	COLOMBIA,
MDBK cells	Virus isolation, virus titration and NPLA test	Produced and provided	0	3 tubes of 1 mL each	1	COLOMBIA,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHA Members?

No

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 WOAHA Standards for the designated pathogen or disease?

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
loop-mediated isothermal amplification test for the sensitive, rapid, and economic detection of different genotypes of Classical swine fever virus	Development of a new loop-mediated isothermal amplification test for the sensitive, rapid, and economic detection of different genotypes of Classical swine fever virus. Jose Alejandro Bohórquez, Adriana Muñoz-Aguilera, Saraswathi Lanka, Liani Coronado, Rosa Rosell, Mònica Alberch, Carol W Maddox, Lilianne Ganges. Front Cell Infect Microbiol . 2024 Apr 15;14:1372166. doi: 10.3389/fcimb.2024.1372166.

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

No

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

Yes

NAME OF THE NEW VACCINE DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
FlagT4G	The FlagT4G Vaccine Confers a Strong and Regulated Immunity and Early Virological Protection against Classical Swine Fever. Bohórquez JA, Wang M, Díaz I, Alberch M, Pérez-Simó M, Rosell R, Gladue DP, Borca MV, Ganges L. Viruses. 2022 Sep 2;14(9):1954.

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

Yes

NAME OF THE WOAHA MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
--	---------	-----------------------------

COLOMBIA	Training about virus isolation, virus titration and seroneutralization (NPLA) tests	In loco
ARGENTINA	Molecular test for CSFV diagnosis	e mails
ECUADOR	Molecular test for CSFV diagnosis	Online
CUBA	Test for CSFV diagnosis and CSF vaccine potency test	In loco
ECUADOR	CSF Vaccine potency test and test for Molecular differentiation of vaccine viruses from field viruses	Online

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAHA MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
European Research group (EPIZONE): Diagnosis, epidemiology and control strategies for transboundary diseases	Indefinite	Strengthen the cooperation between National and International Reference Laboratories in the field of Epizootic diseases. - facilitate and coordinate scientific research applied to "Epizootic Disease Diagnosis and Control" - develop and support strategies for durable cooperation, particularly to inform about opportunities for further funding - develop, share and upgrade common research tools and platforms for joint research projects - develop common research methods, standards and protocols - share data and information among partners and better facilitate public access to selected information on epizootic diseases	L'Agence nationale chargée de la sécurité sanitaire de l'alimentation, de l'environnement et du travail (ANSES), France - Animal and Plant Health Agency (APHA), UK - Centre de Recherches en Sanitat Animal (IRTA-CReSA), Spain - Wageningen Bioveterinary Research (WBVR), Netherlands - Technical University of Denmark, National Veterinary Institute (DTU Vet), Denmark - Friedrich Loeffler Institute (FLI), Germany - Institute for Animal Health (IAH) UK - Institute of Virology and Immunology (IVI), Switzerland - Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna Brescia (IZSLER), Italy - Istituto Zooprofilattico Sperimentale delle Venezie (IZS-Ve), Italy -	BELGIUM DENMARK FRANCE GERMANY ITALY POLAND SPAIN SWITZERLAND
CSFV virulent factors	2017-2030	Update on CSFV pathogenesis for disease control	Institute of Virology and Immunology	SWITZERLAND
CSFV diagnosis and vaccine control	2020-2029	CSFV diagnosis and vaccine control	ARS, USDA	UNITED STATES OF AMERICA
CSFV and ASFV diagnosis	2020-2024	Improve CSFV and ASFV diagnostic tools	University of Illinois, USDA	UNITED STATES OF AMERICA
CSF control strategies	2022-2024	CSF control strategies	CIGB	CUBA

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

Yes

Research need : 1

Please type the Research need: 1-) Research is needed to establish endpoint criteria (ethics and animal welfare) to be applied in CSFV vaccine potency test conducted with domestic pigs. Within chapter 3.9.3 it is established that the animals after the CSFV challenge (using high virulence strain, and with high CSFV

doses) reproduce the acute form of CSF. For this type of test, the end point criteria to avoid animal suffering are not included.

Relevance for WOAH Disease Control, Capacity Building, Standard Setting, Animal Welfare, Facilitation of international collaboration,

Relevance for the Codes or Manual Code, Manual,

Field Diagnostics, Vaccines,

Animal Category Terrestrial,

Disease:

Classical swine fever

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 Manual Chapter 3.9.3

Notes:

Answer:

Research need : 2

Please type the Research need: 2-) Alternative methods that can be used in vaccine potency test in order to reduce animal experimentation.

Relevance for WOAH Disease Control, Capacity Building, Animal Welfare, Facilitation of international collaboration,

Relevance for the Codes or Manual Manual,

Field Vaccines,

Animal Category Terrestrial,

Disease:

Classical swine fever

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 Manual Chapter 3.9.3

Notes:

Answer:

Research need : 3

Please type the Research need: 3-) Research in the search for alternative methods that avoid the use of live viruses in methods for determining neutralizing antibodies (NPLA for CSFV) among others test using live viruses. In many countries, the application of this type of assay for the monitoring and surveillance of CSFV is complicated, since they do not have level 3 laboratories for biocontainment.

Relevance for WOAH Disease Control, Capacity Building, Standard Setting, Facilitation of international collaboration,

Relevance for the Codes or Manual Code, Manual,

Field Epidemiology and Surveillance, Diagnostics,

Animal Category Terrestrial,

Disease:

Classical swine fever

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:

Development of new vaccine strategies, vaccine efficacy trials against CSF, as well as development and transfer of CSFV diagnostic methods (including new rapid, sensitive and economical tests) and reference materials

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:

Evolutionary-Related High- and Low-Virulent Classical Swine Fever Virus Isolates Reveal Viral Determinants of Virulence. The FlagT4G Vaccine Confers a Strong and Regulated Immunity and Early Virological Protection against Classical Swine Fever

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:

5

Efficient detection of African Swine Fever Virus using minimal equipment through a LAMP PCR method. Bohorquez JA, Lanka S, Rosell R, Pérez-Simó M, Alberch M, Rodríguez F, Ganges L, Maddox CW. *Front Cell Infect Microbiol.* 2023 Jan 27;13:1114772. doi: 10.3389/fcimb.2023.1114772. eCollection 2023.

Vaccination against swine influenza in pigs causes different drift evolutionary patterns upon swine influenza virus experimental infection and reduces the likelihood of genomic reassortments. López-Valiñas Á, Valle M, Wang M, Darji A, Cantero G, Chiapponi C, Segalés J, Ganges L, Núñez JI. *Front Cell Infect Microbiol.* 2023 Mar 13;13:1111143. doi: 10.3389/fcimb.2023.1111143. eCollection 2023.

Genetic diversification patterns in swine influenza A virus (H1N2) in vaccinated and nonvaccinated animals. López-Valiñas Á, Valle M, Pérez M, Darji A, Chiapponi C, Ganges L, Segalés J, Núñez JI. *Front Cell Infect Microbiol.* 2023 Sep 15;13:1258321. doi: 10.3389/fcimb.2023.1258321. eCollection 2023.

2023 International African Swine Fever Workshop: Critical Issues That Need to Be Addressed for ASF Control. Wang L, Ganges L, Dixon LK, Bu Z, Zhao D, Truong QL, Richt JA, Jin M, Netherton CL, Benarafa C, Summerfield A, Weng C, Peng G, Reis AL, Han J, Penrith ML, Mo Y, Su Z, Vu Hoang D, Pogranichniy RM, Balaban-Oglan DA, Li Y, Wang K, Cai X, Shi J. *Viruses.* 2023 Dec 19;16(1):4. doi: 10.3390/v16010004.

Evolutionary-Related High- and Low-Virulent Classical Swine Fever Virus Isolates Reveal Viral Determinants of Virulence. Hinojosa Y, Liniger M, García-Nicolás O, Gerber M, Rajaratnam A, Muñoz-González S, Coronado L, Frías MT, Perera CL, Ganges L, Ruggli N. *Viruses.* 2024 Jan 19;16(1):147. doi: 10.3390/v16010147.

b) International conferences:

5

WOAH Global Conference Emergency Management. Abril, 2023. Maison de la Chimie, Paris, France. Poster. *Novel diagnostic platform based on LAMP assays for the efficient detection of African and classical swine fever viruses using minimal equipment.* Jose Alejandro Bohorquez, Saraswathi Lanka, Adriana Muñoz, Rosa Rosell, Marta Pérez-Simó, Mònica Alberch, Fernando Rodríguez, Carol W Maddox Lilianne Ganges.

EPIZONE - 15th ANNUAL MEETING. Abril 2023. Novi Sad, Serbia. Oral. *Novel diagnostic platform based on lamp assays for the efficient detection of African and classical swine fever viruses using minimal equipment.* Jose Alejandro Bohorquez, Saraswathi Lanka, Adriana Muñoz, Rosa Rosell, Marta Pérez-Simó, Mònica Alberch, Fernando Rodríguez, Carol W Maddox, Lilianne Ganges.

IV seminario Internacional de Sanidad Agropecuaria, SISA 2023 (SISA 20, mayo 2023, CENSA, Cuba. Ponencia Invitada. Lilianne Ganges. *Avances en el diagnóstico e investigación de la peste porcina clásica: Desafíos para el control de la enfermedad.*

Conferencia para la red de laboratorios de diagnóstico veterinario de Colombia y personal del Instituto Colombiano Agropecuario (ICA), noviembre 2023. Colombia. Ponencia Invitada. Lilianne Ganges. *Grandes desafíos para el control de la peste porcina clásica.*

International CSFV conference, Wuhan, China, diciembre 2023. Ponencia Invitada Lilianne Ganges. Deciphering viral and host factors related with classical swine fever.

c) National conferences:

4

XVI congreso nacional de virología, SEV, septiembre 2022, Málaga, España. Oral. Into the eye of the classical swine fever cytokine storm: Role of the Erns RNase activity and a poly-uridine insertion in the 3'UTR. Miaomiao Wang, Jose Alejandro Bohórquez, Sara Muñoz González, Markus Gerber, Mònica Alberch, Marta Pérez Simó, Xavier Abad, Matthias Liniger, Rosa Rosell, Nicolas Ruggli, Lilianne Ganges.

XVI congreso nacional de virología, SEV, septiembre 2022. Málaga, España. Oral. A novel dendrimeric-based strategy for the detection of the Classical swine fever virus FlagT4G vaccine. Jose Alejandro Bohórquez, Sira Defaus Rosa Rosell, Marta Pérez-Simó1, Mònica Alberch, Douglas P. Gladue, Manuel V. Borca, David Andreu, Lilianne Ganges

XVI congreso nacional de virología, SEV, septiembre 2022. Málaga, España. Poster. Pathogenesis of an emerging Pestivirus in ovine and swine: old foes or new threats?. Jose Alejandro Bohorquez, Miaomiao Wang, Enrica Sozzi, Mónica Alberch Joan Pujols, Guillermo Cantero, Xavier Abad, Alessandra Gaffuri, Davide Lelli, Rosa Rosell, Lester Josue Perez, Albert Bensaid, Mariano Domingo, Ana Moreno, Lilianne Ganges

Symposium of the Association of Veterinary Laboratory Diagnostic Specialists (AVEDILA). noviembre 2023, Elche, España. Design and development of simple, rapid, and cost-effective tools for the diagnosis of transboundary diseases relevant to the swine sector. Ponencia Invitada. Lilianne Ganges

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 WOAHA Members?

Yes

a) Technical visit : 1

b) Seminars : 3

c) Hands-on training courses: 4

d) Internships (>1 month) 1

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
A	COLOMBIA	4
B	COLOMBIA	50
B	CHINA (PEOPLE'S REP. OF)	200
B	CUBA	100
C	COLOMBIA	4
D	COLOMBIA	1

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO17025	PDF	900_LE1557CORREGIDO.pdf
GLP	PDF	Certificado BPL- IRTA-CReSA. BPLI-2311-001-Cat.pdf
ISO9001	PDF	AENOR-ISO-9001-ER-0591-hasta-2024.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Seroneutralization test (NPLA) for CSFV antibody detection and differentiation with other Pestiviruses (IT-A4 ESE 005)	ENAC

Detection of Classical Swine Fever virus by real-time RT-PCR (IT-A4-EPCR 132)	ENAC
Conventional RT-PCR for Pestiviruses detection (IT-A4-EPCR 232)	ENAC
Virus isolation test (CSFV) (IT-A4-EVI 019)	ENAC
ELISA for CSFV antibody detection (IT-A4-EELS 008)	ENAC
Simultaneous detection of Classical Swine Fever and African swine fever viruses by Duplex real-time RT-PCR (IT-A4-EPCR 053)	ENAC

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

Yes

The High Biocontainment Unit of IRTA-CReSA is and ABSL3-Ag facility authorized for the handling and experimentation with Genetic Modified Organisms type 3 and any activity related with them and with will hazard group 3 pathogens (for animal beings but also for humans) by the "Comision Nacional de Bioseguridad" (the Spanish regulatory body devoted to this issue). The operation of the facility (laboratory and animal areas) is also performed under ISO9001 and GLP regulations and a Biosafety Officer is responsible of the general overview of biosafety and biosecurity issues.

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
WOAH Global Conference Emergency Management	2023-04-03	Maison de la Chimie, Paris, France	Poster	Novel diagnostic platform based on LAMP assays for the efficient detection of African and classical swine fever viruses using minimal equipment. Jose Alejandro Bohorquez, Saraswathi Lanka, Adriana Muñoz, Rosa Rosell, Marta Pérez-Simó, Mònica Alberch, Fernando Rodríguez, Carol W Maddox Lilianne Ganges.
International Symposium on Classical Swine Fever and Other Important Swine Infectious Diseases	2023-11-28	Wuhan, China	Speaker	Deciphering viral and host factors related with classical swine fever. Lilianne Ganges

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?

No

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.
Enhance and harmonize the diagnosis of CSFV in the Americas Validation of diagnostic protocols: Real time RT-qPCR, Conventional RT-PCR, Sequencing, antibody detection by ELISA and NPLA test	Organizer	1	CSF WOAHP Ref. Lab, Canadian Food Inspection Agency, Ottawa Laboratory (Fallowfield), Animal Disease Research Institute, Canadá

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
Pestivirus Characterization	Update on the pathogenesis, molecular biology and immunology of Pestiviruses	WOAH Ref. Lab: University of Veterinary Medicine of Hannover, Department of WOAHP/EU CSF Reference Laboratory, Infectious Diseases, Institute of Virology, Hannover, German
Pestivirus Characterization and differentiation	Molecular and serological pestiviruses characterization and differentiation	CSF WOAHP Ref. Lab, Canadian Food Inspection Agency, Ottawa Laboratory (Fallowfield), Animal Disease Research Institute, Canadá

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
Enhance and harmonize the diagnosis of CSFV in the Americas Validation of diagnostic protocols: Real time RT-qPCR, Conventional RT-PCR, Sequencing, antibody detection by ELISA and NPLA test	Organizer	14	Real time RT-qPCR, Conventional RT-PCR, Sequencing, Virus neutralization assay, antibody ELISA	BELIZE, CANADA, CHILE, COSTA RICA, CUBA, DOMINICAN (REP.), ECUADOR, EL SALVADOR, GUATEMALA, HONDURAS, NICARAGUA, PANAMA, PARAGUAY, PERU,
Enhance and harmonize the diagnosis of CSFV in the Americas Validation of diagnostic protocols: Real time RT-qPCR, Conventional RT-PCR, Sequencing, antibody detection by ELISA and NPLA test	Organizer	1	Real time RT-qPCR, Conventional RT-PCR, Sequencing, Virus neutralization assay, antibody ELISA	COLOMBIA,
CSF National reference Laboratory, Spain	Participant	26	antibody ELISA	SPAIN,

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Revision and update the WOAHP Terrestrial_Manual, Classical swine_fever virus (infection with classical swine fever virus)	remote	Revision and update
Ad hoc Group on the evaluation of CSF status 2023	In loco	Review and evaluation of country dossiers, analysis of the situation in each country, determination of the situation and preparation of reports

29. Additional comments regarding your report:

No