

# WOAH Reference Laboratory Reports Activities 2022

## Activities in 2022

This report has been submitted : 26 avril 2023 11:58

### Laboratory Information

<b>Name of disease (or topic) for which you are a designated WOA Reference Laboratory:</b>	Classical Swine fever
<b>Address of laboratory:</b>	Animal and Plant Health Agency, New Haw, Addlestone Surrey KT15 3NB Weybridge UNITED KINGDOM
<b>Tel.:</b>	+44-208 026 9665
<b>E-mail address:</b>	helen.crooke@apha.gov.uk
<b>Website:</b>	<a href="https://www.gov.uk/government/organisations/animal-and-plant-health-agency">https://www.gov.uk/government/organisations/animal-and-plant-health-agency</a>
<b>Name (including Title) of Head of Laboratory (Responsible Official):</b>	David Holdsworth Chief Executive Officer
<b>Name (including Title and Position) of WOA Reference Expert:</b>	Dr Helen Crooke, Head of Swine Fever and Pestivirus Research. Interim deputy Mammalian virology workgroup leader
<b>Which of the following defines your laboratory? Check all that apply:</b>	Governmental 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 WOA Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
CSFV antibody ELISA	Yes	3388	0

CSFV Antibody NPLA	Yes	10	0
Direct diagnostic tests		Nationally	Internationally
CSFV RT-PCR	Yes	8	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
Pestivirus Mab WH211	Virus detection	Provided	0	5	3	Asia and Pacific Europe
Pestivirus MAb WH303	Virus detection	Provided	32	112	13	America Asia and Pacific Europe

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA Members?

No

## 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 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 Standards for the designated pathogen or disease?

No

## TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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	PURPOSE	HOW THE ADVICE WAS
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TECHNICAL CONSULTANCY		PROVIDED
JAPAN	Information on monoclonal antibodies	email

## 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
Epitope mapping of the structural protein E2 of classical swine fever virus	ongoing	Target epitope characterization of monoclonals targeting CSFV E2 glycoprotein	Animal Health Research Institute Taiwan/School of Veterinary Medicine National Taiwan University	CHINESE TAIPEI
Characterisation of pestivirus monoclonal antibodies	ongoing	characterisation of monoclonals recognising to assist in diagnosis of infections with pestiviruses	University of Veterinary medicine, Hannover Germany	GERMANY
Development of novel diagnostic platform for pestiviruses	ongoing,	Development of novel serological diagnostic platform	CISRO	AUSTRALIA

## TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

No

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:

2

Strong, Rebecca et al. "Molecular Epidemiology Questions Transmission Pathways Identified During the Year 2000 Outbreak of Classical Swine Fever in the UK." *Frontiers in microbiology* vol. 13 909396. 28 Jun. 2022, doi: 10.3389/fmicb.2022.909396

Meek, S., Watson, T, Eory, L. et al. Stem cell-derived porcine macrophages as a new platform for studying host-pathogen interactions. *BMC Biol* 20, 14 (2022). <https://doi.org/10.1186/s12915-021-01217-8>

b) International conferences:

2

*EPIZONE 14th Annual meeting Barcelona May 2022**Genetic tracing of an historic outbreak of classical swine fever in the UK Helen Crooke , Rebecca Strong Stephen McCleary, Sylvia Grierson, Bhudipa Choudhury, Falko Steinbach**Dendritic cell responses of live attenuated C-strain and E2 subunit (Porvac) vaccines, against classical swine fever virus Elliot Steedman, Jane Edwards, Yusmel Sordo-Puga, Stephen McCleary , Lisa Stevens, Emma Howes, Rebecca Strong, Maria Pilar Rodríguez-Moltó , Falko Steinbach , Helen Crooke**Is the trick of CSFV C strain vaccine attenuation just growing slowly? Falko Steinbach , Frederico Ferreira, Helder Nakaya, Helen Crooke**ESVV 12th International congress for veterinary virology Ghent Sept 2022**Has the attenuation of CSFV C strain vaccine just resulted in a slow growing virus? Falko Steinbach, Frederico Ferreira, Helder Nakaya, Helen Crooke*

c) National conferences:

0

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

0

**TOR7: SCIENTIFIC AND TECHNICAL TRAINING**

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

No

**TOR8: QUALITY ASSURANCE**

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO9001		ISO9001 certificate 2020-2023.pdf
UKAS17025		ISO17025 Certificate.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
CSFV virus isolation	UKAS
CSFV /ASFV RT- PCR	UKAS
CSFV antibody ELISA	UKAS
Pestivirus comparative neutralisation assay	UKAS
CSFV antigen ELISA	UKAS

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

Yes

APHA maintains a complete and functioning laboratory biological risk management system, which ensures that the laboratory is in compliance with applicable local, national (UK Health and Safety Executive), regional, and international standards and requirements for biosafety and laboratory biosecurity.

## 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?

No

## 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

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?

Not applicable (Only WOAHP Reference Laboratory designated for the disease)

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
Epitope mapping of the structural protein E2 of classical swine fever virus	Target epitope characterization of monoclonals targeting CSFV E2 glycoprotein	Animal Health Research Institute/ School of Veterinary Medicine National Taiwan University.
Characterisation of monoclonal antibodies against pestiviruses	Testing of monoclonal antibodies using pestivirus strains that were discovered in ruminants, pigs or in non-ungulate hosts.	University of Veterinary Medicine of Hannover, Germany

## 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 <sup>1</sup>	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Region(s) of participating WOAHP Member Countries
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PT0036 Detection of CSFV antibodies by ELISA or neutralisation PT provider	Organiser	10	America Asia and Pacific Europe
Proficiency testing for all tests used for serological and virological detection of CSF org	Participant		

## TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Opinion via email	UK	Review of request to update chapter of terrestrial manual on CSF regarding other vaccines

29. Additional comments regarding your report:

No