# WOAH Reference Laboratory Reports Activities 2023

## Activities in 2023

### This report has been submitted : 25 juin 2024 13:30

## Laboratory Information

| | |
|---|---|
| **Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:** | Classical swine fever |
| **Address of laboratory:** | Animal and Plant Health Agency, New Haw, Addlestone Surrey KT15 3NB Weybridge UNITED KI |
| **Tel.:** | +442080269665 |
| **E-mail address:** | helen.crooke@apha.gov.uk |
| **Website:** | https://www.gov.uk/government/organisations/animal-and-plant-health-agency |
| **Name (including Title) of Head of Laboratory (Responsible Official):** | David Holdsworth Chief Executive Officer |
| **Name (including Title and Position) of WOAH Reference Expert:** | Dr Helen Crooke, Head of Swine Fever and Pestivirus Research. Interim deputy Mammalian virolology workgroup leader |
| **Which of the following defines your laboratory? Check all that apply:** | 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 WOAH Manual (Yes/No) | Total number of test performed last year | |
|---|---|---|---|
| Indirect diagnostic tests | | Nationally | Internationally |
| CSFV antibody ELISA | | 3733 | 0 |
| CSFV Antibody NPLA | | 1 | 0 |
| Direct diagnostic tests | | Nationally | Internationally |
| CSFV RT PCR | | 11 | 0 |

## 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 |
|---|---|---|---|---|---|---|
| | | | | | | AUSTRALIA, BELGIUM, CHINA (PEOPLE'S REP. |

| | | | | | | |
|---|---|---|---|---|---|---|
| WH303 mab | Virus detection | Produced and Provided | 32 | 112 | 12 | OF), CHINESE TAIPEI, HONG KONG, INDONESIA, JAPAN, THAILAND, THE NETHERLANDS, UNITED KINGDOM, UNITED STATES OF AMERICA, |
| WH211 | Virus detection | provided | 0 | 5 | 3 | AUSTRALIA, CHINESE TAIPEI, DENMARK, |

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?

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?

No

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

No

## 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 |
|---|---|---|---|---|
| Epitope mapping of the E2 protein of Classical swine fever | Ongoing | Characterisation of epitopes to enhance differential diagnosis | Animal Health research Institute Taiwan/School of veterinary medicine National Taiwan University | CHINESE TAIPEI |
| Characterisation of pestivirus monoclonal antibodies | Ongoing | Characterisation of monoclonal antibodies to assist in diagnosis of infections with pestiviruses | University of Veterinary medicine, Hannover Germany | GERMANY |

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: |
|---|

Collected data to support continuing disease freedom

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*
*Identification of neutralizing epitopes on the D/A domain of the E2 glycoprotein of classical swine fever virus*
*Yu-Liang Huang, Denise Meyer, Alexander Postel, Kuo-Jung Tsai, Hsin-Meng Liu, Chia-Huei Yang, Yu-Chun Huang, Hui-Wen Chang, Ming-Chung Deng , Fun-In Wang, Paul Becher, Helen Crooke, Chia-Yi Chang*
*Virus Research Volume 336, 15 October 2023, 199209*

b) International conferences:

*2*
*Characterization of classical swine fever virus specific epitopes on the D/A domain of glycoprotein E2*
*Yu-Liang Huang, Denise Meyer, Alexander Postel, Kuo-Jung Tsai, Hsin-Meng Liu, Chia-Huei Yang, Yu-Chun Huang, Hui-Wen Chang, Ming-Chung Deng, Fun-In Wang, Paul Becher, Helen Crooke, and Chia-Yi Chang*
*15th Epizone meeting Novi-Sad Serbia*
*The ISG15 network is crucial and tightly regulated in the early protection of classical swine fever virus C strain vaccine Falko Steinbach, Frederico Ferreira, Nicholas Berkley, Helder Nakaya, Helen Crooke 13th International Veterinary Immunology symposium S.Africa Nov 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?

No

# *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 | pdf | ISO17025 Certificate (1).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 functional laboratory biological risk management system which ensure that the laboratory is in compliance with applicable local, national (UK Health and Safely 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 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?

Yes

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

Yes

| NETWORK/DISEASE | ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC) | NO. PARTICIPANTS | PARTICIPATING WOAH REF. LABS |
|---|---|---|---|
| CSFV | Participant | 3 | TIHO Germany AHRI Chinese Taipei |

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. |
|---|---|---|---|
| PT0036 Detection of CSFV antibodies by ELISA or neutralisation | Organiser and participant | 17 | APHA |

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 |
|---|---|---|
| Epitope mapping of the E2 protein of Classical swine fever | Target epitope characterization of monoclonals targeting CSFV E2 glycoprotein | Animal Health Research Institute, Taiwan |
| Characterisation of pestivirus monoclonal antibodies | 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 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 |
|---|---|---|---|---|
| PT0036 Detection of CSFV antibodies by ELISA or neutralisation | Provider | 17 | ELISA or Neutralisation | |

## TOR12: EXPERT CONSULTANTS

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

Yes

| KIND OF CONSULTANCY | Location | SUBJECT (FACULTATIVE) |
|---|---|---|
| Review of WOAH terrestrial manual chapter on CSFV | online | Update and revision of diagnostic terrestrial manual chapter in collaboration with other WOAH CSF experts |

29. Additional comments regarding your report: