

# WOAH Reference Laboratory Reports Activities 2022

## Activities in 2022

This report has been submitted : 2 mai 2023 10:07

### 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>	CSIRO Australian Centre for Disease Preparedness 5 Portarlington Road East Geelong Victoria 3219 AUSTRALIA
<b>Tel.:</b>	+61-3 5227 5511
<b>E-mail address:</b>	trevor.drew@csiro.au
<b>Website:</b>	www.csiro.au/en/research/facilities/aahl
<b>Name (including Title) of Head of Laboratory (Responsible Official):</b>	Prof Trevor Drew, Director
<b>Name (including Title and Position) of WOA Reference Expert:</b>	Prof Trevor Drew, Director
<b>Which of the following defines your laboratory? Check all that apply:</b>	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	
Indirect diagnostic tests		Nationally	Internationally
ELISA	YES	1208	128
VN (NPLA)	YES	13	8

Direct diagnostic tests		Nationally	Internationally
CSF isolation	YES	0	8
CSF PCR (Hoffmann)	YES	312	1
CSF TaqMan PCR (McGoldrick)	YES	13	0
CSF PIADC TaqMan PCR (Risatti)	NO	325	9
Pan-Pestivirus TaqMan	NO	366	1

## TOR2: REFERENCE MATERIAL

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

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA?H 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?H MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Network quality control	PCR	Produced & provided	8ml		1-Australia (4 labs)	Asia and Pacific
Network quality control	ELISA	Produced & Provided	45ml		1 - Australia (7 labs)	Asia and Pacific

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA?H 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?H 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?H Standards for the designated pathogen or disease?

No

## TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

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NAME OF WOAHP 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
PAPUA NEW GUINEA	2022-11-01	CSF ELISA	41	0
SOLOMON (ISLANDS)	2022-11-01	CSF ELISA	78	0
THE NETHERLANDS	2022-07-01	CSF isolation	4	0

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

Yes

NAME OF THE WOAHP MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
AUSTRALIA	Advice to Federal Government on diagnostic testing and surveillance	Remote assistance (email & web calls)
AUSTRALIA	Advice to VIC government on field diagnostic testing	Remote assistance (email & web calls)

## **TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES**

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

No

## **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:

b) International conferences:

c) National conferences:

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 : 22

b) Seminars : 50

c) Hands-on training courses: 125

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
A	Indonesia - Biosafety training, Risk assessments, spills training and chemical safety, Yogyakarta, Indonesia, 12-16 September 2022	Indonesia (22)
B	BaseCamp Asia Training course (virtual). Diseases and laboratory diagnosis of CSF, ASF, PRRS, FMD & Aujeszky's disease March 2022. (Sponsored by Boehringer Ingelheim GmbH)	Taiwan (1); Japan (1); Philippines (12); Thailand (10); Indonesia (5); China (19); Vietnam (3)
C	Regional Proficiency Testing Provider Training, 21-25 February 2022 (Virtual)	China, Vietnam, Thailand, Malaysia, South Korea, Japan, Indonesia, India (14)
C	NGS Wet-Lab Protocols for RNA (AIV, CSF) and DNA (ASF) viruses Workshop, 21-23 March 2022 (Virtual)	Indonesia (13)
C	Biosafety Leadership Training, April – December 2022 (Monthly Engagement) (Virtual)	Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, Papua New Guinea, Singapore, Timor Leste (19)
C	Laboratory Refresher Proficiency Test Workshop, Denpasar, Indonesia 4 – 6 July 2022	Indonesia (20)
C	Refresher Proficiency Test Workshop, Yogyakarta, Indonesia, 26-27 July 2022	Indonesia (16)
C	Validation and Verification Workshop, Yogyakarta, Indonesia, 12-16 September 2022	Indonesia (22)
C	Biosafety training, Risk assessments, spills training and chemical safety, Yogyakarta, Indonesia, 12-16 September 2022	Indonesia (22)
C	Pathology and Histology Training, Geelong, Australia, 24 October -4 November 2022	Indonesia (2)
C	Sequencing and Bioinformatics Training, Geelong, Australia, 24 October -4 November 2022	Indonesia (1)
C	Serology Classical Swine Fever (CSF)/Porcine Epidemic Diarrhoea (PEDV)/Porcine Circovirus Type 2 (PCV-2) and Virus Isolation PEDV/PCV2 Training, Geelong, Australia, 7-18 November 2022	Vietnam (4)
C	Virus isolation and serology for swine diseases technical training, HCMC, Vietnam, 5-9 December 2022	Vietnam (6)

## TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO 17025:2017	Accreditation Number: 13546   Site Number: 13539	NATA ISO 17025 SEP 2022.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Testing for sterility and freedom from contamination of biological materials intended for veterinary use – Innocuity (Bacterial culture - Biphasic medium, mycoplasma broth; Dark field microscopy; Embryonated egg culture; Enzyme linked immunosorbent assay (ELISA); Fluorescent antibody test; Haemagglutination; PCR - Quantitative (qPCR); Polymerase chain reaction (PCR); Virus isolation) (ASFV isolation QA/13-04-101)	NATA (ILAC affiliated)
Microbiology – Molecular biology - Detection, characterisation and/or quantitation of microbial nucleic acids (viruses) (Roche Taqman RT PCR)	NATA (ILAC affiliated)
Detection and identification of viruses (Genotyping; Polymerase chain reaction (PCR); PCR – Quantitative (qPCR))	NATA (ILAC affiliated)
Examination of biopsy material (Histopathology; Immunohistochemistry; Macroscopic examination; Microscopic examination QA/13-04-096 and QA/13-04-068)	NATA (ILAC affiliated)
Necropsy services (Microscopic examination; Anatomical pathology) (Anatomical pathology; QA/13-04-035)	NATA (ILAC affiliated)
Detection and identification of viruses (Transmission electron microscopy (TEM); Scanning electron microscopy (SEM))	NATA (ILAC affiliated)
Molecular analysis - Bioinformatic analysis and interpretation (Analysis of DNA alignment; DNA alignment to reference sequence)	NATA (ILAC affiliated)
Molecular analysis – Sequencing (Sanger sequencing) (Polymerase chain reaction (PCR))	NATA (ILAC affiliated)
Microbiology - Serology of infection - Microbial antibody and/or antigen detection and/or quantitation (Enzyme linked immunosorbent assay (ELISA)) (Agar gel immunodiffusion (AGID)) (Serum neutralization) (Neutralising peroxidase linked assay; Fluorescent antibody virus neutralisation test) (Indirect fluorescent antibody test QA/13-04-154)	NATA (ILAC affiliated)
Detection and identification of viruses (Cell culture; Cultural) (Embryonated egg culture) (Haemagglutination Inhibition) (ASFV isolation QA/13-04-106)	NATA (ILAC affiliated)

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

Yes

ACDP has a dedicated Biorisk Management Team (14 Members) who provide specialist advice, monitor and improve Biosafety,

Biosecurity and Biocontainment activities and perform maintenance on Biocontainment systems. The team uses a risk analysis approach to management of biological risks for biosafety and biosecurity to inform and determine the policy and procedures that in turn give confidence that the laboratory procedures for each of the biological materials handled by the laboratory pose negligible danger to Australia's animal and human populations. 261 Policies and procedures are contained in the annually reviewed ACDP Biorisk Manual consisting of various sections as follows. Section 1 Administration Section 2 PC2 Procedures and Policies Section 3 PC3 Procedures and Policies Section 4 PC4 Procedures and Policies Section 5 Large Animal Facility (LAF) Procedures and Policies Section 6 Personnel and Procedural Controls Section 7 Transport and Storage of Biological Material Section 8 Movement of Material, Equipment and Waste Section 9 Engineering Procedures and Policies Section 10 Microbiological Incident Response Procedures and Policies Section 11 Laboratory Services Group Section 12 Containment Services Group The successful ACDP biological risk management system has clear and unequivocal commitment by laboratory management, who ensure that roles, responsibilities, resources and authorities related to biological risk management are defined, documented, and communicated to those who manage, perform, and verify work associated with biological agents and toxins in the laboratory. The Biorisk Management Team are audited over 3 days every 6 months by an external security assessment team to provide an independent review of elements affecting ACDP's microbiological and physical security operations and to advise CSIRO senior executive management of any areas of concern or risk. The laboratory is working towards accreditation to ISO 35001:2019 Biorisk management for laboratories and other related organisations.

## TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOA?H?

No

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

No

## TOR10: NETWORK WITH WOA?H REFERENCE LABORATORIES

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

No

24. Are you a member of a network of WOA?H Reference Laboratories designated for the same pathogen?

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOA?H REF. LABS/ ORGANISING WOA?H REF. LAB.
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25. Did you organise or participate in inter-laboratory proficiency tests with WOA?H Reference Laboratories designated for the same pathogen?

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOA?H REF. LABS/ ORGANISING WOA?H REF. LAB.
CSF ELISA PT	Participant		Organised by APHA UK, No of participants unknown
CSF isolation	Participant		Organised by Univ of Hannover (EURL), No of participants

			unknown
CSF PCR	Participant		Organised by Univ of Hannover (EURL), No of participants unknown

26. Did your laboratory collaborate with other WOA 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 WOA 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 WOA Member Countries
Detection of CSF by ELISA in Australian & New Zealand laboratories as part of the Laboratories Emergency Animal Disease Diagnosis and Response (LEADDR) Network	Organiser	7	Asia and Pacific
Detection of CSF by PCR in Australian & New Zealand laboratories as part of the Laboratories Emergency Animal Disease Diagnosis and Response (LEADDR) Network	Organiser	8	Asia and Pacific
Detection of CSF by PCR in Asia Pacific regional laboratories as part of the Laboratories Emergency Animal Disease Diagnosis and Response (LEADDR) Network	Organiser	10	Asia and Pacific

## TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Vice President of the WOA Scientific Commission for Animal Diseases	Virtual	Participation in SCAD meeting Feb 2022
Vice President of the WOA Scientific Commission for Animal Diseases	Paris	Participation in SCAD meeting Sept 2022
WOAH SCAD Representation on AHG for rabies	Paris	AHG for Rabies, Nov 2022
Member of the FAO/OIE Standing Group of Experts for African swine fever	Virtual	Control of ASF in the region, also differentiation from CSF and other diseases

Participation in WOAHS CSF Ref Lab Network	Virtual	Discussions on revision of CSF Chapter in WOAHS Terrestrial Manual
Membership of WOAHS Specialist Commission for Animal Diseases	Virtual	Scrutiny, discussion and feedback on SCAD papers
Technical advice to National Authority	Virtual	Review of Code and Manual chapters (via DAFF Australia)

29. Additional comments regarding your report:

Yes

*Due to COVID-19, ACDP has continued to work with limited operational capacity for the first half of 2022 (for example, adopting roster arrangements for staff site access, reduced site access to ensure physical distancing, no international travel and visitors unable to attend site for the first half of the year). This has limited ACDP's capacity to carry out planned research and conduct training and has limited some types of diagnostic submissions to the laboratory.*