

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 24 juin 2024 06:39

Laboratory Information

Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory:	Classical swine fever
Address of laboratory:	Australian Centre for Disease Preparedness, 5 Portarlington Road, East Geelong Victoria 3219 Australia
Tel.:	+61 352275000
E-mail address:	trevor.drew@csiro.au
Website:	https://www.csiro.au/en/about/facilities-collections/acdp
Name (including Title) of Head of Laboratory (Responsible Official):	Dr Debbie Eagles Director, Australian Centre for Disease Preparedness
Name (including Title and Position) of WOAHO Reference Expert:	Dr Trevor Drew (TENURE)
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 WOAHO Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
AbELISA		663	190
NPLA		6	2
Direct diagnostic tests			
CSF isolation		0	0
CSF PCR (Hoffmann)		205	0
CSF TaqMan PCR (McGoldrick)		0	0
CSF PIADC TaqMan PCR (Risatti)		205	0
Pan-Pestivirus TaqMan		205	0

TOR2: REFERENCE MATERIAL

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

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAHO Members?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAHS MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
CSF PCR control	PCR	Produced & provided	10ml	0.5ml	3	AUSTRALIA, CAMBODIA,
CSF Network positive Ab control	AbELISA	Produced & provided	5ml	-	4	AUSTRALIA,

4. Did your laboratory produce vaccines?

No

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

NAME OF WOAHS 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
SOLOMON (ISLANDS)	2023-04-01	AbELISA	82	0
SOLOMON (ISLANDS)	2023-04-01	NPLA	82	0
SOLOMON (ISLANDS)	2023-04-15	AbELISA	79	0
SOLOMON (ISLANDS)	2023-05-01	AbELISA	29	0

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

Yes

NAME OF THE WOAHS MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
AUSTRALIA	Biosecurity and biosafety training within the Region	Face-to-face
AUSTRALIA	Diagnostic techniques training within the Region	Face-to-face
AUSTRALIA	Foundation course in Biorisk Management Systems to effectively identify, assess, control, and evaluate biosafety and biosecurity risks. Aligned to ISO 35001:2019 Biorisk Management for laboratories and other related organisations.	Face-to-face
AUSTRALIA	Regional networking workshop and coordination meeting on the wildlife interface Emerging Infectious Disease (EID) surveillance. National Research and Innovation Agency (BRIN)	Face-to-face
AUSTRALIA	Chemical Safety Training within the Region	Face-to-face

AUSTRALIA	WOAH Collaboration Centre for Wildlife Health Management at Wildlife Health Australia: Contribution to disease surveillance of SE Asian apes	Face-to-face
AUSTRALIA	Identifying essential components of Biosafety and Biorisk Management for application in participants laboratory environments	Face-to-face
AUSTRALIA	Quality Assurance gap analysis and training to develop and improve Quality Assurance frameworks	Face-to-face
AUSTRALIA	NGS/Viromic Training	Face-to-face

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

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

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:

1

Layton R., Layton D., Stanger K., Beggs D., Fisher A., Mansell P. 2023. *The impact of stress and anaesthesia on animal models of infectious disease. Frontiers Vet. Sci. 10:3389* <https://doi.org/10.3389/fvets.2023.1086003>

b) International conferences:

1

Reid T., Singanallur Balasubramani N., C. Waugh C., Bowden T., Newberry K., Colling A. *Validation of diagnostic tests for infectious diseases: challenges and opportunities. In: Proceedings of the International Symposium on Sustainable Animal Production and Health: Current Status and the Way Forward. Vienna, 28 June - 2 July 2021. FAO, Rome. https://doi.org/10.4060/cc2530en*

c) National conferences:

0

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

1

National Animal Health Monitoring Program Annual Report, available at <https://animalhealthaustralia.com.au/>

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 : 9
 b) Seminars : 3
 c) Hands-on training courses: 7
 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	50
B	INDONESIA	34
C	INDONESIA	52
A	PAPUA NEW GUINEA	12
C	PAPUA NEW GUINEA	3
C	CAMBODIA	2
C	VIETNAM	2
C	MALAYSIA	2
C	SINGAPORE	2
C	THAILAND	2
C	TIMOR-LESTE	2
C	LAOS	2

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	ACDP 17025 Accredited Organisation (Site No. 13539) - NATA.pdf
ISO 17043	PDF	ACDP 17043- Accredited Organisation (Site No. 20418) - NATA.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);	NATA (ILAC affiliated) NATA (ISO 17025)
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	NATA (ILAC affiliated)

virus neutralisation test) (Indirect fluorescent antibody test QA/13-04-154)

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

Yes

The laboratory has a dedicated Biorisk Management Team (18 Members) who provide specialist advice, monitor and improve Biosafety, Biosecurity and Biocontainment activities and perform maintenance and validation on Biocontainment systems. The team uses a risk analysis approach to the 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 a negligible danger to Australia's animal and human populations. 261 Policies and procedures are contained in the annually reviewed ACDP Biorisk Manual, which consists 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. In addition to statutory monitoring and audits from regulatory authorities, the Biorisk Management Team facilitate an inspection across three days every six months by an external security assessment team to provide an independent review of elements affecting ACDP's microbiological and physical security operations with findings communicated to CSIRO senior executive management of any areas of concern or risk. The laboratory aspires to become formally accredited 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 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?

No

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

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS
WOAHP CSF Lab Network	Participant	8	Canada, China, Chinese Taipei, Germany, Japan, Poland, Spain, United Kingdom

25. Did you organise or participate in inter-laboratory proficiency tests with WOAHP Reference Laboratories designated for the same pathogen?

No

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?

No

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
Harmonising existing test methods for PCR detection of CSFV DNA through the				BANGLADESH, BHUTAN, BRUNEI, CAMBODIA, CHINA (PEOPLE'S REP. OF),

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Asia Pacific Regional Proficiency Testing: Swine Diseases PCR panel	Organiser	23	PCR	CHINESE TAIPEI, INDIA, INDONESIA, KOREA (REP. OF), MALAYSIA, NEW CALEDONIA, PHILIPPINES, SINGAPORE, VIETNAM,
Molecular PCR detection of CSFV by Australian & New Zealand laboratories as part of the Laboratories Emergency Animal Disease Diagnosis and Response (LEADDR) Network	Organiser & Participant	9	PCR	AUSTRALIA, NEW ZEALAND,
Detection of CSFV antibodies using an ELISA commercial kit by Australian laboratories as part of the Laboratories Emergency Animal Disease Diagnosis and Response (LEADDR)	Organiser & Participant	8	AbELISA	AUSTRALIA,

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Vice-President, WOA?H Scientific Commission for Animal Diseases	Paris, France	COMMISSION MEETINGS (Feb & Sep 2023) General Sessions, May 2023 & May 2024
Scientific Commission for Animal Diseases	F2F and online	Member of the Taskforce on Animal Hosts
Scientific Commission for Animal Diseases	Online	SCAD representation on AHG for dog-mediated rabies
Contribution to update of WOA?H Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023.	Online	Chapter 1.1.5. Quality Management in Veterinary Testing Laboratories
Contribution to update of WOA?H Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023.	Online	Chapter 2.2.4. Measurement Uncertainty
Contribution to update of WOA?H Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023.	Online	Chapter 1.1.9. Tests for sterility and freedom from contamination of biological materials intended for veterinary use
Contribution to update of WOA?H Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023.	Online	Chapter 2.2.8. Comparability of assays after changes in a validated test method
Contribution to update of WOA?H Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023.	Online	Chapter 2.2.6. Use of reference samples and panels

29. Additional comments regarding your report:

Yes

The Reference Expert retired in October 2023. ACDP will provide a proposal for a replacement Expert shortly.