

# WOAH Reference Laboratory Reports Activities 2025

This report has been submitted: 25 septembre 2025 06:37

## LABORATORY INFORMATION

<b>*Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:</b>	Classical swine fever
<b>*Address of laboratory:</b>	6-20-1 Josui-Honcho Kodaira Tokyo 187-0022
<b>*Tel:</b>	+81-42 321 14 41
<b>*E-mail address:</b>	fukai.katsuhiko544@naro.go.jp
<b>Website:</b>	<a href="https://www.naro.go.jp/english/laboratory/niah/index.html">https://www.naro.go.jp/english/laboratory/niah/index.html</a>
<b>*Name (including Title) of Head of Laboratory (Responsible Official):</b>	Ken Katsuda, Director
<b>*Name (including Title and Position) of WOAH Reference Expert:</b>	Katsuhiko Fukai, D.V.M., Ph.D., Manager, Division of Transboundary Animal Disease Research
<b>*Which of the following defines your laboratory? Check all that apply:</b>	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	
		Nationally	Internationally
<b>Indirect diagnostic tests</b>			
Neutralization test	Yes	0	0
<b>Direct diagnostic tests</b>			
Virus isolation	Yes	17	0
real-time RT-PCR	Yes	0	0
Sequencing	Yes	42	0
Conventional RT-PCR	Yes	22	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

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### Katsuhiko Fukai - - JAPAN

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient WOAHO Member Countries	Country of recipients
DNA as positive control	Conventional RTPCR for CSFV RNA detection (Vilcek et al., 1994, Arch. Virol., 136, 309323)	Produced and provided	37 laboratories	0	1	JAPAN,
CPK-NS cells	Virus neutralization test (Sakoda et al., 1998, J Virol Methods, 75, 5968)	Produced and provided	5 laboratories	0	1	JAPAN,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHO Members?

### 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 WOAHO Standards for the designated pathogen or disease?

No

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

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

### TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

Yes

Name of the WOAHO Member Country receiving a technical consultancy	Purpose	How the advice was provided
JAPAN	WOAHO-recommended diagnostic procedures for CSF	Face-to-face
PHILIPPINES	WOAHO-recommended diagnostic procedures for CSF	Face-to-face
SRI LANKA	WOAHO-recommended diagnostic procedures for CSF	Face-to-face
THAILAND	Methods for evaluating the efficacy of attenuated CSF vaccines	Face-to-face

### TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	WOAHO Member Countries involved other than your country
The collaboration of the development of the agriculture and food industry in Japan and Taiwan	2020-2025	To strategically cooperate for fostering the development of agricultural and food science and technology	Veterinary Research Institute, Council of Agriculture	CHINESE TAIPEI

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

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:

Developing new vaccine strategies, conducting efficacy trials against CSF, and advancing CSFV diagnostic methods—including rapid, sensitive, and cost-effective tests—alongside standardized reference material distribution

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:

Whole genome analysis results of classical swine fever virus detected from domestic pigs and wild boars in Japan, Epidemic situation of classical swine fever in wild boars in Japan based on genetic testing and antibody testing results

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:

4

Fukai K. et al. 2025. *The narrow window of protection: protective efficacy of maternally derived antibodies against virulent classical swine fever virus in Japan*. *Vet. Res.*, 56(1):151, doi: 10.1186/s13567-025-01583-z.

Fukai K. et al. 2025. *Oral infectivity and 50% porcine infectious dose of classical swine fever virus JPN/1/2018 strain isolated from the first case in Japan*. *J. Vet. Med. Sci.*, 87(7):769-773. doi: 10.1292/jvms.25-0123.

Nishi et al. 2025. *Potency of two chimeric vaccine candidates derived from the classical swine fever GPE- vaccine strain against a circulating virus strain isolated in Japan*. *Vet. Microbiol.*, 303:110438. doi: 10.1016/j.vetmic.2025.110438.

Matsuyama R. et al. 2025. *Estimating waning immunity against classical swine fever virus among adult wild boar: A case study in Japan*. *Prev. Vet. Med.*, 237:106440. doi: 10.1016/j.prevetmed.2025.106440.

b) International conferences:

2

Yamamoto T. 2025. *Overview of CSF and related research in Japan*. *The 1st Roundtable Meeting of East Asian Institutes*. Tsukuba, Japan, September 26, 2025, Oral presentation.

Nishi T. 2025. *Advancing ASF/CSF diagnosis: insights from Japan's field studies*. *The 11th Asian Pig Veterinary Society Congress 2025*. Fukuoka, Japan, November 10, 2025, Oral presentation.

c) National conferences:

4

Yamamoto T. 2025. *Epidemiology of CSF outbreak in Japan*. *The 15th International Symposium of the Center for Animal Disease Control (CADIC)*, University of Miyazaki. Miyazaki, Japan, July 3, 2025, Oral presentation.

Matsuyama R. et al. 2025. *Estimation of immunity waning against classical swine fever in adult wild boars in Japan*. *The 168th meeting of the Japanese Society of Veterinary Science*. Miyazaki, Japan, September 5, 2025, Oral presentation.

Yamamoto T. et al. 2025. *Estimation of epidemic situation based on classical swine fever virus whole genome analysis results*. *The 168th meeting of the Japanese Society of Veterinary Science*. Miyazaki, Japan, September 5, 2025, Oral presentation.

Fukai K. 2025. *Pathogenesis of classical swine fever revealed by infection experiments*. *The frontline of classical swine fever research*. Online, February 18, 2025, Oral presentation.

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?

Yes

a) Technical visit : 0

b) Seminars : 0

c) Hands-on training courses: 0

d) Internships (>1 month) 2

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
D	PHILIPPINES	1
D	SRI LANKA	1

## 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	認定通知書_JAB_Word_20250204150702.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
CSFV RT-PCR	Japan Accreditation Board

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

Yes

Our high-containment facility is compliant with the containment level for group 4 pathogens described in the WOAHA Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2024.

## TOR9: SCIENTIFIC MEETINGS

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

No

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

No

## TOR10: NETWORK WITH WOAHA REFERENCE LABORATORIES

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

Yes

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

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHA REF. LABS
WOAHA-Terrestrial Manual, Chapter CSF	Participant	8	China, Japan, UK, Germany, Spain, Chinese Taipei, Poland, Canada

25. Did you organise or participate in inter-laboratory proficiency tests with WOAHA Reference Laboratories designated for the same pathogen during the past 2 years?

**Katsuhiko Fukai - - JAPAN**

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAHO Ref. Labs/ organising WOAHO Ref Lab
Validation of diagnostic protocols: Realtime RT-PCR, Conventional RT-PCR, Antigen ELISA, Virus isolation, Sequencing, Virus Neutralization assay, Antibody ELISA	Participant	N/A	Germany

26. Did your laboratory collaborate with other WOAHO 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 WOAHO Reference Laboratories for the same pathogen during the past 2 years?

No

N/A

## TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
Revision and update the WOAHO Terrestrial_Manual, Classical swine_fever virus (infection with classical swine fever virus)	Remote	Revision and update

29. Additional comments regarding your report:

No

N/A