

# WOAH Reference Laboratory Reports Activities 2025

This report has been submitted: 13 mars 2026 07:03

## 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>	No.376, Zhongzheng Rd., Danshui Dist., New Taipei City 25158, Taiwan (R.O.C.)
<b>*Tel:</b>	+886226212111
<b>*E-mail address:</b>	ylhuang@mail.nvri.gov.tw
<b>Website:</b>	<a href="https://eng.nvri.gov.tw/RWD/default.aspx">https://eng.nvri.gov.tw/RWD/default.aspx</a>
<b>*Name (including Title) of Head of Laboratory (Responsible Official):</b>	Yu-Liang Huang Associate Researcher
<b>*Name (including Title and Position) of WOAH Reference Expert:</b>	Yu-Liang Huang Associate Researcher
<b>*Which of the following defines your laboratory? Check all that apply:</b>	Veterinary Research Institute, Chinese Taipei Governmental 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 WOAH Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
<b>Indirect diagnostic tests</b>			
CSF Virus neutralization test	Yes	8865	0
<b>Direct diagnostic tests</b>			
CSF Virus isolation	Yes	14	0
CSF Real-time RT-PCR	Yes	21385	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?

No

4. Did your laboratory produce vaccines?

No

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

## TOR4: DIAGNOSTIC TESTING FACILITIES

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

No  
11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAHS Member?

No

## TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	WOAHS Member Countries involved other than your country
The collaboration of the development of the agriculture and food industry in Japan and Taiwan	2025-2030	To strategically cooperate for fostering the development of agricultural and food science and technology	National Institute of Animal Health, NARO	JAPAN
Collaboration on diagnosis and surveillance of transboundary swine diseases between VRI and NIVR	2025-2028	Collaboration on diagnosis and surveillance of transboundary swine diseases between VRI and NIVR	National Institute of Veterinary Research	VIETNAM

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

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:

The antigen and antibody surveillance of CSFV in domestic pigs and wild boars in Taiwan

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:

The antigen and antibody surveillance of CSFV in domestic pigs and wild boars in Taiwan

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:

3

## Yu-Liang Huang - - CHINESE\_TAIPEI

1. Huang YC, Deng MC, Huang YL, Tsai KJ, Liu HM, Liu IL, Lin CS, Chang CY. Classical swine fever virus genotype 2.1 triggers stronger inflammatory and immune responses in porcine alveolar macrophages than genotype 3.4. *Dev Comp Immunol.* 72:105496, 2025.
2. Tsai KJ, Chen HY, Wang C, Hung CS, Hsu WC, Chen TH, Deng MC, Tsai CT, Lin NN, Hsu JP, Chang CY, Huang YL. Monitoring for classical swine fever virus persistence and seropositivity in vaccinated pig farms using on-farm sentinel pigs during the pre-elimination phase toward a CSF-free status. *Prev Vet Med.* 243:106610, 2025.
3. Pan CJ, Tsai KJ, Chang JC, Deng MC, Lin NN, Lager KM, Robertson ID, Huang YL. Phylogenetic Characterization and Seroprevalence of Senecavirus A from Swine Farms in Taiwan. *Animals (Basel)* 24;15(19):2786. 2025.

b) International conferences:

4

1. Yu-Liang Huang, Hsin-Pei Lu, Shu-Hui Thai, Chai-Ming Huang, Kuo-Jung Tsai, Chien-Hui Liao, Ming-Chung Deng, Chung-Shun Hung. Molecular Epidemiology of Porcine Reproductive and Respiratory Syndrome Virus 2 in Taiwan during 2014 to 2024. *The 11th Asian Pig Veterinary Society Congress, 2025*
2. Cheng-Ju Pan, Yu-Liang Huang, Jen-Chieh Chang, Ming-Chung Deng, Wen-Yuan Yang. Risk factor analysis of postweaning multisystemic wasting syndrome (PMWS) in swine farms in Taiwan. *The 11th Asian Pig Veterinary Society Congress, 2025*.
3. Cheng-Ju Pan, Kuo-Jung Tsai, Yu-Tai Chu, Ming-Chung Deng, Yu-Liang Huang. Acute-phase dynamic of Senecavirus A infection in pigs inoculated with a Taiwanese isolate. *Global Foot-and-Mouth Disease Reearch Alliance Scientific Meeting, 2025*.
4. Hsin-Meng Liu, Min g-Chung Deng, Yu-Liang Huang, Kuo-Jung Tsai, Hui-Wen Chang, Chia-Yi Chang. Early immunity induced by a modified live vaccine contributes to the superior infectivity of classical swine fever virus genotype 2.1 to genotype 3.4 in dual infections. *The 11th Asian Pig Veterinary Society Congress, 2025*

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 WOAHP 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)	
ISO17025	Emerging Animal Disease Division, Veterinary Research Institute, MOA (PDF)	L0855-250819_英-ok.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
CSF Virus neutralization test	ILAC-TAF
CSF Virus isolation	ILAC-TAF
CSF Real-time RT-PCR	ILAC-TAF

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

Yes

1. SOP of National exotic animal disease laboratory 2. Emergence plant of National exotic animal disease laboratory 3. Biosecurity of National exotic animal disease laboratory

## 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?

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

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

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAHP Ref. Labs/ organising WOAHP Ref Lab
CSF INTER-LABORATORY COMPARISON TEST 2025	PARTICIPANT	unknow	Organiser: University of Veterinary Medicine Hannover, Institute of Virology EU and OIE Reference Laboratory for CSF

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
Characterization of monoclonal antibodies against Classical Swine fever Virus	Testing of novel monoclonal antibodies against Classical Swine fever Virus using different pestivirus strains (including various genotypes of CSFV)	University of Veterinary Medicine Hannover, Institute of Virology EU and OIE Reference Laboratory for CSF
Epitope mapping of the structural protein E2 of classical swine fever virus	Target epitope characterization of monoclonals targeting CSFV E2 glycoprotein	Animal & Plant Health Agency, United Kingdom

## 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 during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons <sup>1</sup>	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAHP Member Countries
Asia-Pacific Terrestrial Proficiency Test Program	PARTICIPANT	27	Asia-Pacific Terrestrial Proficiency Test Program	AUSTRALIA,

## TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
To provide a consensus document of the WOAHP Terrestrial Manual, chapter on classical swine fever	by email	Update the Terrestrial Manual, chapter on classical swine fever
Meeting of the ad hoc Group on Evaluation of Classical Swine Fever Status of Members	meeting at the WOAHP Headquarters	Evaluation of Classical Swine Fever Status of Members

29. Additional comments regarding your report:

No