

# WOAH Reference Laboratory Reports Activities 2025

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## LABORATORY INFORMATION

<b>*Name of disease (or topic) for which you are a designated WOA Reference Laboratory:</b>	Newcastle disease
<b>*Address of laboratory:</b>	Animal and Plant Quarantine Agency(APQA), 177 Hyeoksin 8-ro, Gimecheon-si, Gyeongsangbuk-do, Republic of Korea
<b>*Tel:</b>	+82-54 912 0817
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<b>Website:</b>	http://www.qia.go.kr
<b>*Name (including Title) of Head of Laboratory (Responsible Official):</b>	Jung-Rok Choi (Commissioner), APQA
<b>*Name (including Title and Position) of WOA Reference Expert:</b>	Ji-Ye Kim, DVM, Ph.D Veterinary Researcher, Newcastle disease Laboratory, Avian Disease division, Animal and Plant Quarantine Agency (APQA)
<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	
		Nationally	Internationally
Indirect diagnostic tests			
HI test	Yes	847	0
Direct diagnostic tests			
Virus detection and isolation(RRT-PCR, RT-PCR, egg inoculation)	Yes	2836	2

## TOR2: REFERENCE MATERIAL

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

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA 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 Member Countries	Country of recipients
Control positive antigen and antiserum	HI serologic test	provide	59ml(5,900dose)	0	1	KOREA (REP. OF),

4. Did your laboratory produce vaccines?

Not applicable

5. Did your laboratory supply vaccines to WOA Members?

## TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

Yes

Name of the new test or diagnostic method developed	Description and References (Publication, website, etc.)
Primers for rRT-PCR based detection and quantitation of pathogenic and nonpathogenic Newcastle disease virus and its use	Patent application (no. PCT/KR2024/095076) : Malaysia, Indonesia, Vietnam, Thailand

7. Did your laboratory validate diagnostic methods according to WOAHP 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 WOAHP Standards for the designated pathogen or disease?

## TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

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
VIETNAM	2025-09-09	RRT-PCR	9	7

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
SINGAPORE	RRT-PCR screening assay and conventional RT-PCR for sequencing	by email

## TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	WOAHP Member Countries involved other than your country
The molecular epidemiology of Newcastle disease, Infectious bronchitis and infectious bursal disease in Vietnam	2023-2025	To extend the understanding of epidemiology of the poultry diseases in Southeast Asia	Vietnam National University of Agriculture (VNUA)	VIETNAM

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

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:

1. Molecular epidemiology of Newcastle disease in Vietnam
2. Active and passive surveillance for Newcastle disease in Korea

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:

1. Characterization of Newcastle disease viruses currently circulating in Vietnam(VNUA)
2. We disseminated those data from surveillance program and monitoring system against poultry and wild birds in Korea through conference and presentations in the workshops for veterinary officers or researchers of other Asian countries hosted by WOAAH or APQA

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

*Nguyen TVH, Nguyen HG, Thai TN, Vu ND, Tran TCG, Bui NH, Than TT, Le HD, Her M, Kim HR, Kim JY, Le VP. Molecular and pathological evaluation of a velogenic Newcastle disease virus strain circulating in Vietnam. Avian Pathol. 2026 Feb;55(1):120-135. doi: 10.1080/03079457.2025.2570722. Epub 2025 Nov 4. PMID: 41051173.*

b) International conferences:

2

1. *Regional Workshop on Avian Diseases Prevention and Control in Asian and the Pacific*

2025 "Laboratory activity and research updates\_ Surveillance Program of Newcastle disease in Korea" (WOAH, Aug 27, 2025)

2. *Pathogenicity of a virulent Newcastle disease virus of genotype VII.2 isolated from chickens in Vietnam (The Korean Society of Veterinary Science, 2025.10.21. Korea)*

c) National conferences:

1

*Avian Disease Diagnosis training workshop (May, 2025, APQA)*

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 WOAAH Members?

Yes

a) Technical visit : 0

b) Seminars : 12

c) Hands-on training courses: 0

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
B	BANGLADESH	1
B	MALAYSIA	1
B	LAOS	2
B	MYANMAR	2
B	SINGAPORE	2

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B	SRI LANKA	2
B	THAILAND	2

## TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO17025	pdf	20241121_KT372_Animal_and_Plant_Quarantine_Agency_PM_Eng.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Identification of the agent(molecular techniques)	KOLAS-Korean Laboratory Accreditation Scheme
Serologic test (HA, HI)	KOLAS-Korean Laboratory Accreditation Scheme

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

Yes

A national biorisk management is designated to prevent disease among personnel and to protect the community from harm by preventing the release of infectious pathogen. In order to maintain the biorisk capacity of containment facilities in Korea, the national approval and management system for these facilities(BSL2, BSL3, ABSL-2, ABSL-3). We have operated "Guideline for biosafety of infectious disease diagnosis and research (APQA-PR-BR-ABL3)".

## 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?

Yes

Title of event	Date	location	Role (speaker, presenting poster, short communications)	Title of the work presented
WOAH avian disease network in East asia	2025-05-18	online(Zoom)	participant	
Regional Workshop for Avian disease prevention and control in Asia and the Pacific 2025	2025-08-25	Sapporo(Japan)	speaker	Current Newcastle disease situation, Surveillance program and activities on Newcastle disease in Korea and Research activities

## 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?

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS
WOAH-RRAP (Newcastle disease)	participant	2	WOAH Reference Laboratory for Newcastle 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

Role of your Reference Laboratory	Participating WOAHP Ref. Labs/ organising

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Purpose of the proficiency test:	(organiser/ participant)	No. participating Laboratories	WOAH Ref Lab
2025 PT programme AQUA IN for Newcastle disease	participant	information available from organiser (IZSVe, Italia)	Organising by IZSVe (Italia)

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 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	WOAH Member Countries
Annual national proficiency test for diagnosis of Newcastle disease	organizer	66	ND antigen detection (RRT-PCR)/ ND antibody test(HI)	KOREA (REP. OF),

## TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No