

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 27 mai 2024 08:39

Laboratory Information

Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory:	Japanese Encephalitis
Address of laboratory:	177 Hyeoksin 8-ro Gimcheong-si Gyeongsangbuk-do 39660
Tel.:	+82 54.912.0785
E-mail address:	yangdk@korea.kr
Website:	
Name (including Title) of Head of Laboratory (Responsible Official):	Jung-hee Kim (commissioner of Animal and Plant Quarantine Agency: APQA)
Name (including Title and Position) of WOAHO Reference Expert:	Dong-Kun Yang (Senior scientist of Animal and Plant Quarantine Agency: APQA)
Which of the following defines your laboratory? Check all that apply:	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 WOAHO Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
Virus Neutralization test		1331	0
Direct diagnostic tests			

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 (nonWOAHO-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 WOAHO MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Positive and negative samples	HI	Provided	0	10 mL (1mL/tube)	1	UNITED STATES OF AMERICA,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHO Members?

No

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.)
Multiplex RT-PCR for the detection of JEV genotype 1, 3, and 5	The Korean Society of Veterinary Science, 2024, p.140)

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?

No

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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
INDIA	To control of JE infection in pigs	E-mail

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

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:

To control Japanese Encephalitis, the seroprevalence of horses was carried out every year in South Korea. In 2023, we conducted VN test on 1331 horses' sera collected from 16 cities. Considered that most domestic horses housed for racing were regularly immunized with JEV vaccine, the overall positive rate (85.5%, 1138 of 1331) was likely to be affected by vaccination.

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:

Seroprevalence data collected from horse sera were released at webinar.

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:

1

The role of the WOAHP reference lab and the diagnostic tests for JE (Webinar)

c) National conferences:

2

*1) Development of a convenient Japanese Encephalitis antibody test applicable to various animals (APQA news letter)**2) Multiplex RT-PCR for the detection of Japanese Encephalitis genotype 1, 3, and 5 (The Korean Society of Veterinary Science)*

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?

Yes

a) Technical visit : 0

b) Seminars : 0

c) Hands-on training courses: 5

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
C	PHILIPPINES	3
C	MALAYSIA	2
C	VIETNAM	3
C	SRI LANKA	2
C	KAZAKHSTAN	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/IEC 17025:2017	PDF	KT372_Anlmal and Plant Quarantine Agency_Eng.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
VN test	KOLAS
HI test	KOLAS

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

Yes

In accordance with KOLAS, the biorisk was managed by APQA.

TOR9: SCIENTIFIC MEETINGS

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

Yes

NATIONAL/ INTERNATIONAL	TITLE OF EVENT	CO-ORGANISER	DATE (MM/YY)	LOCATION	NO. PARTICIPANTS
International	The role of the WOAH reference lab and the diagnostic tests for JE	WOAH	2023-03-25	Online	177

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

No

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

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

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

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

Not applicable (Only WOAH Reference Laboratory designated for the disease)

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

Not applicable (Only WOAH Reference Laboratory designated for the disease)

26. Did your laboratory collaborate with other WOAH Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Not applicable (Only WOAH Reference Laboratory designated for the disease)

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen?

No

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

Yes

JE is known to be endemic in Republic of Korea (ROK), and although it is continuously diagnosed in humans, there have been no JE cases diagnosed in domestic animals including pigs and horses since 2008. There was no JE case in the aborted fetus test. So, the antigen diagnosis section was marked as negative. When it comes to JEV vaccine, five biologic companies in ROK have produced attenuated JEV vaccines and supplied them to pig farms. Additionally, my lab has been conducting a research project titled "Development of JEV and Getah Combined Vaccine for Animals" since 2022. It is expected that a new inactivated JEV and Getah combined vaccine for animals will be submitted for patent. After the submission of the patent specification, information regarding the development of the new vaccine will be released.