

WOAH Reference Laboratory Reports Activities 2024

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LABORATORY INFORMATION

*Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Chronic wasting disease
*Address of laboratory:	177, Hyeoksin 8-ro, Gimcheon-si, Gyeongsangbuk-do, 39660
*Tel:	+82-54 912 0862
*E-mail address:	shonhj@korea.kr
Website:	http://www.qia.go.kr/english/html/Animal_livestock/02AnimalLivestock_OIE07
*Name (including Title) of Head of Laboratory (Responsible Official):	Dr Jung Hee Kim Commissioner, Animal and Plant Quarantine Agency
*Name (including Title and Position) of WOAH Reference Expert:	Hyun Joo Sohn , Head of Chronic Wasting Disease WOAH Reference laboratory
*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)

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Yes

Diagnostic Test	Indicated in WOA Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
PRNP Genotype	No	334	0
RT-QuIC	No	49	0
Direct diagnostic tests		Nationally	Internationally
PrP Ag ELISA	Yes	4323	0
PrP western blot	Yes	49	0
PrP immunohistochemistry	Yes	49	0

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 WOAH Member Countries	Country of recipients
CWD infected formalin fixed paraffin block	TSE Immunohistochemistry	provide	0	1ea	1	THAILAND,

4. Did your laboratory produce vaccines?

Not applicable

5. Did your laboratory supply vaccines to WOA Members?

Not applicable

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 WOA 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 WOA 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
THAILAND	Discussion of PrP immunohistochemistry method for TSE	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?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	WOAHP Member Countries involved other than your country
Interspecies transmission of CWD	5 years	Transgenic mouse model studies include sika deer inoculation studies	Canadian food Inspection Agency	CANADA

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:
Canada

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:

0

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b) International conferences:

0

c) National conferences:

7

1. Sohn HJ, Lee YR, Kim JM, Park KJ, Park HC, Kang HE Preliminary results of Neurofilaments lights chain as a biomarker in *The Korean Society of Veterinary Science* 64(3) 129 Oct 2024
2. Sohn HJ, Lee YR, Park KJ, Park HC, Kang HE Optimization of RT-QuIC assay for Bovine Spongiform Encephalopathy *The Korean Society of Veterinary Science* 64(1) 40 April 2024
3. Park KJ, Park HC, Lee YR, Kang HE, Sohn HJ Application of nanoparticle- RT-QuIC (Nano-QuIC) Diagnostic Assay *The Korean Society of Veterinary Science* 64(1) 40 April 2024
4. Park HC, Park KJ, Lee YR, Kim JM, Kang HE, Sohn HJ Detection of Chronic Wasting Disease (CWD) prions in sperm of preclinical CWD gene-targeted (GtQ226) *The Korean Society of Veterinary Science* 64(1) 40 April 2024
5. Lee YR, Park HC, Park KJ, Kang HE, Sohn HJ The inhibition of PrPBSE fibrillation by nanocurcumin using RT-QuIC assay *The Korean Society of Preventive Veterinary Medicine* 48(1) 30 May 2024
6. Park HC, Park KJ, Lee YR, Kang HE, Sohn HJ In vivo distribution of PrPCWD in urinary system of sika deer CWD infected gene-targeted (GtE226) mice *The Korean Society of Veterinary Science* 64(3) 129 Oct 2024
7. Park KJ, Park HC, Lee YR, Kang HE, Sohn HJ Sensitive detection of chronic wasting disease prions in the farm soil using by sPMCA *The Korean Society of Veterinary Science* 64(3) 129 Oct 2024

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 WOA H Members?

Yes

a) Technical visit : 0

b) Seminars : 12

c) Hands-on training courses: 12

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	MALAYSIA	2
C	MONGOLIA	2
C	SRI LANKA	1
C	KAZAKHSTAN	2

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C	PHILIPPINES	2
C	THAILAND	1
C	SINGAPORE	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	(영문 인정서)KT372_Animal_and_Plant_Quarantine_Agency_PM_Eng_20241121.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
PrP Western blot	KOLAS-Korea Laboratory Accreditation Scheme
PrP rapid test	KOLAS-Korea 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 pathogens. In order to maintain the biosafety capacity of containment facilities in Korea, the national approval and management system for these facilities, such as biosafety Level 3(BL3). Accreditation No KCDC HP-16-3-03, KCDC 16-3-03 We have operated " Guideline for biosafety of infectious disease diagnosis and research (APQA-PR-BR-BL3)

TOR9: SCIENTIFIC MEETINGS

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

No

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

No

TOR10: NETWORK WITH WOA REFERENCE LABORATORIES

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

Yes

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

No

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

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Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAHL Ref. Labs/ organising WOAHL Ref Lab
Scrapie rapid test(PT0125)	Participant	6	WOAHL RL for TSE UK (APHA)

26. Did your laboratory collaborate with other WOAHL 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 WOAHL Reference Laboratories
Interspecies transmission of CWD	Transgenic mouse model studies include sika deer inoculation studies	WOAHL RL for CWD Canada

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAHL Reference Laboratories for the same pathogen during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAHL Member Countries
National proficiency test of TSE rapid test	Organizer	19	BSE rapid test	KOREA (REP. OF),

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No