

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 11 juin 2024 08:57

Laboratory Information

Name of disease (or topic) for which you are a designated WOAHO 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:	
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 WOAHO Reference Expert:	Hyun Joo Sohn
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			
PRNP genotype		220	0
RT-QuIC		34	0
Direct diagnostic tests			
PrP ELISA		12139	0
PrP Western blot		34	0
PrP immunohistochemistry		34	0

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?

No

4. Did your laboratory produce vaccines?

Not applicable

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

Yes

NAME OF THE WOAH MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
THAILAND	Discussion of PrP immunostain method for TSE	E-mail

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAH MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Interspecies transmission of CWD	on going	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 WOAH?

No

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

No

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:

2

1. Han JY, Park KJ, Park HC, Lee YR, Moore RA, Sohn HJ, Choi YP. Autoclave treatment fails to completely inactivate DLB alpha-synuclein seeding activity *Biochem Biophys Res.* 2023 Mar 3;34:101446. doi: 10.1016/j.bbrep.2023.101446. eCollection 2023 Jul.

2. Lee YR, Kim YC, Won SY, Jeong MJ, Park KJ, Park HC, Roh IS, Kang HE, Sohn HJ, Jeong BH. Identification of a novel risk factor for chronic wasting disease (CWD) in elk: S100G single nucleotide polymorphism (SNP) of the prion protein gene (PRNP) *Vet Res.* 2023 Jun 16;54(1):48. doi: 10.1186/s13567-023-01177-7.

b) International conferences:

0

c) National conferences:

9

1. Sohn HJ, Park KJ, Park HC, Lee YR, Kang HE Application of RT-QuIC assay to discover novel natural products *The Korean Society of Veterinary Science* 63(1) 49 April 2023
2. Sohn HJ, Lee YR, Park KJ, Park HC, Kang HE The inhibition of prion fibrillation by resveratrol using RT-QuIC assay *The Korean Society of Preventive Veterinary Medicine* 63(1) 11 April 2023
3. Lee YR, Park KJ, Park HC, Kang HE, Sohn HJ, The inhibition of prion fibrillation by curcumin using RT-QuIC assay *The Korean Society of Veterinary Science* 63(3) 144 Nov 2023
4. Park KJ, Park HC, Lee YR, Kang HE, Sohn HJ Detection of CWD infectious prions in testis of clinical CWD infected VM/Dk *The Korean Society of Veterinary Science* 63(1) 48 April 2023
5. Park HC, Park KJ, Lee YR, Kang HE, Sohn HJ Strain stability of CWD upon VM/Dk mouse *The Korean Society of Veterinary Science* 63(1) 48 April 2023
6. Park HC, Park KJ, Lee YR, Kang HE, Sohn HJ In vivo distribution of PrPCWD in male reproductive tissue of sika deer CWD infected gene-targeted(GtE226) mice *The Korean Society of Veterinary Science* 63(3) 144 Nov 2023
7. Sohn HJ, Park KJ, Park HC, Lee YR, Kang HE Bovine spongiform encephalopathy surveillance in the Republic of Korea *The Korean Society of Veterinary Science* 63(3) 144 Nov 2023
8. Park KJ, Park HC, Lee YR, Kang HE, Sohn HJ Alkaline hydrolysis of CWD infected mouse carcass *The Korean Society of Veterinary Science* 63(3) 144 Nov 2023
9. Park KJ, Gordon Mitchell, Park HC, Lee YR, Kang HE, Sohn HJ Distribution of PrPCWD in tissues of CWD affected sika deer with experimental oral transmission using RT-QuIC *The Korean Society of Veterinary Science* 63(3) 144 Nov 2023

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 : 1

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
B	MALAYSIA	2
B	VIETNAM	3
B	SRI LANKA	2
B	KAZAKHSTAN	2
B	PHILIPPINES	3
C	MALAYSIA	2
C	VIETNAM	3
C	SRI LANKA	2
C	KAZAKHSTAN	2
C	PHILIPPINES	3
A	CANADA	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	20220901_KT372_Animal_and_Plant_Quarantine_Agency_Eng.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
PrP Western blot	KOLAS-Korea Laboratory Accrediation Scheme
PrP Rapid test	KOLAS-Korea Laboratory Accrediation 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 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. Do you network (collaborate or share information) with other WOAHP Reference Laboratories designated for the same pathogen?

No

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

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS/ ORGANISING WOAHP REF. LAB.
BSE rapid test (PT0124)	Participant	18	4

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
Interspecies transmission of CWD	CWD	National and WOAHP Reference Laboratory for Scrapie and CWD, Canadian food Inspection Agency

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?

Yes

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

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No