

WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 8 mars 2023 08:03

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 Kore (REP. OF)
Tel.:	+82-54-912-0862
E-mail address:	shonhj@korea.kr
Website:	
Name (including Title) of Head of Laboratory (Responsible Official):	Dr Bong Kyun Park Commissioner, Animal and Plant Quarantine Agency
Name (including Title and Position) of WOAH 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 WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
PRNP genotype	No	330	
RT-QuIC	No	58	
Direct diagnostic tests		Nationally	Internationally
PrP ELISA	Yes	12,714	
PrP Western blotting	Yes	515	
PrP Immunohistochemistry	Yes	515	

TOR2: REFERENCE MATERIAL

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

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA?H Members?

No

4. Did your laboratory produce vaccines?

Not applicable

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

Yes

NAME OF THE WOA?H MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
VIETNAM	Interpretation of PrP immunostained slides for TSE	Remote assistance

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOA?H MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Interspecies transmission of CWD	on going	Transgenic mouse model studies include sika deer	Canadian food Inspection Agency	CANADA

inoculation studies

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. Roh IS, Kim YC, Won SY, Park KJ, Park HC, Hwang JY, Kang HE, Sohn HJ, Jeong BH Association study of the M132L single nucleotide polymorphism with susceptibility to CWD in Korean elk: A meta-analysis *frontiers in veterinary science* 2022 8 804325
2. Roh IS, Kim YC, Won SY, Park KJ, Park HC, Kang HE, Sohn HJ, Jeong BH First report of a strong association between genetic polymorphisms of the prion protein gene (PRNP) and susceptibility to CWD in sika deer *Transbound Emerg Dis* 2022 69 e2073-e2083

b) International conferences:

2

1. Sohn HJ, Park KJ, Lee YR, Park HC, Gordon Mitchell. Distribution of PrPCWD in tissues of CWD affected sika deer using RT-QuIC following experimental oral transmission *Prion* 2022 16(1) 226
2. Sohn HJ, Park KJ, Park HC, Lee YR, Kang HE. Detection of PrPCWD in ear from CWD affected cervid *Prion* 2022 16(1) 226-227

c) National conferences:

7

1. Park KJ, Park HC, Lee YR, Kang HE, Sohn HJ Detection of CWD prions in testis by VM/Dk mice bioassay *The Korean Society of Veterinary Science* 62(1) 70 April 2022
2. Sohn HJ, Lee YR, Park KJ, Park HC, Glenn Telling, Kang HE In vitro detection of PrPCWD with differences amino acid at residue 226 using PrPC(E226) *The Korean Society of Veterinary Science* 62(1) 70 April 2022
3. Park KJ, Park HC, Lee YR, Kang HE, Sohn HJ Detection of CWD prions in urinary tissue of sika deer CWD infected gene-targeted (GtQ226) mice *The Korean Society of Veterinary Science* 62(1) 71 April 2022
4. Park HC, Park KJ, Park JS, Lee YR, Kang HE, Sohn HJ. In vivo distribution of PrPCWD in male reproductive tissue of sika deer CWD infected gene-targeted (Gt Q226) mice *The Korean Society of Veterinary Science* 62(3) 153 Nov 2022
5. Park KJ, Park HC, Park JS, Lee YR, Kang HE, Sohn HJ The monitoring of cervid farm soil for controlling the risk of CWD using PMCAb *The Korean Society of Veterinary Science* 62(3) 153 Nov 2022
6. Sohn HJ park KJ, Lee YR, Park HC, Park JS, Kang HE CWD progression through PrPCWD distribution of whole brain in a horizontal infected farm *The Korean Society of Veterinary Pathology* 27(1) 94 Oct 2022
7. Sohn HJ, Park KJ, Park HC, Lee YR, Kang HE Humanized transgenic mice are resistant to CWD prions from sika deer *The Korean Society of Preventive 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 WOAAH Members?

Yes

a) Technical visit :

b) Seminars : 23

c) Hands-on training courses:

d) Internships (>1 month)

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	Philippines	10
b	Sri Lanka	4
b	Malaysia	2
b	Vietnam	2
b	Kazakhstan	5

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
		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 Accreditation Scheme
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 diseases 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) facilities. 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. Are you a member of a network of 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?

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOA REF. LABS/ ORGANISING WOA REF. LAB.
Scrapie rapid test (PT0125)	participant	14	

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?

Yes

TITLE OF THE PROJECT OR CONTRACT	SCOPE	NAME(S) OF RELEVANT WOA REFERENCE LABORATORIES
Interspecies transmission of CWD	Transgenic mouse model studies include sika deer inoculation studies	WOA 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 WOA Reference Laboratories for the same pathogen?

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Region(s) of participating WOA Member Countries
National proficiency test of TSE rapid test	organizer	18	Asia and Pacific

TOR12: EXPERT CONSULTANTS

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

29. Additional comments regarding your report:

No