WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 5 juin 2024 07:57

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Infection with koi herpesvirus
Address of laboratory:	422-1 Nakatsuhamaura Minami-Ise, Mie, 516-0193
Tel.:	+81599661872
E-mail address:	00000599@fra.go.jp
Website:	
Name (including Title) of Head of Laboratory (Responsible Official):	Takashi Kamaishi (PhD), Director of Pathology Division
Name (including Title and Position) of WOAH Reference Expert:	Takafumi Ito (PhD), Deputy Director of Pathology Division
Which of the following defines your laboratory? Check all that apply:	Governmental Research agency

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
ELISA			
Direct diagnostic tests		Nationally	Internationally
PCR with Sph primer		14	0
PCR with TK primer		14	0

TOR2: REFERENCE MATERIAL

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

No

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

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAH Members?

No

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?

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
KHV qPCR (Ring Test)	[IN PROGRESS] Currently we are performing a Ring Test for KHV qPCR assay with other KHVD Reference Laboratory. Reference: Clouthier et al. 2017. Diagnostic validation of three test methods for detection of cyprinid herpesvirus 3 (CyHV-3). Dis Aqua Org. 123: 101-122.

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?

No

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
KHV qPCR Ring Test	March 2024 through July 2024 (In progress)	To validate reproducibility of qPCR assay for KHV (Ring Test)	Friedrich-Loeffler-Institut, Germany	GERMANY
Epitope mapping of the monoclonal antibody IP5B11 for VHSV	2019-2024	To identify the target (epitope) of the antibody IP5B11 for detecting VHSV	Technical University of Denmark	DENMARK

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?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:
We collected epidemiological data for a novel cyprinid herpesvirus, which is called as 'KHV variant' by an WOAH expert of the KHVD.

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:

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Kawato Y, Mizuno K, Harakawa S, Takada Y, Yoshihara Y, Kawakami H, Ito T. Risk assessment of wild fish as environmental sources of red sea bream iridovirus (RSIV) outbreaks in aquaculture. Diseases of Aqua Org. 2024 :158, 65-74.

Yuasa K, Ito T. Susceptibilities of three kinds of hybrids between crucian carp and common carp, Carassius cuvieri × Cyprinus carpio, Carassius buergeri grandoculis ×

Cyprinus carpio and Carassius buergeri subsp.1 × Cyprinus carpio to cyprinid herpesvirus 3 (CyHV-3). Fish Pathol. 2023:58:104-108.
Kawato Y, Takada Y, Mizuno K, Harakawa S, Yoshihara Y, Nakagawa Y, Kurobe T, Kawakami H, Ito T. Assessing the transmission risk of red sea bream iridovirus (RSIV) in environmental water: Insights from fish farms and experimental settings. Microbiology Spectrum 2023 :11 (5).
Takafumi Ito. The water flea Moina macrocopa (Straus, 1820) (Cladocera: Daphniidae) withstands 100,000 × g in a centrifuge for 10 minutes. J Crust Biol. 2023 :43 ;1-4.
Takafumi Ito, Tohru Mekata, Niels Jørgen Olesen, Niels Lorenzen. Epitope mapping of the monoclonal antibody IP5B11 used for detection of viral haemorrhagic septicaemia virus – facilitated by genome sequencing of carpione novirhabdovirus. Vet Res. 2023 :54:35.
Kurobe T, Kurita J, Haenen O, Voorbergen-Laarman M, Ito T. Mass mortality events associated with cyprinid herpesvirus 2 (CyHV-2) infection in wild Prussian carp Carassius gibelio in the Netherlands, and molecular biology of virus strains. J Fish Dis. 2024 Jan;47(1):e13868.

b) International conferences:

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Kurobe T, Kawato Y, Takada Y, Harakawa S, Suzukawa K, Kawakami H, Kiryu I, Ito T. Investigating routes of pathogen spreading in a saltwater fish farm. 51st Scientific Symposium of the US-Japan Natural Resources Aquaculture Panel, August 2023.
Kawato Y, Takada Y, Kurobe T, Nakagawa Y, Mizuno K, Harakawa S, Kawakami H, Yoshihara Y, Ito T. Estimating transmission risk of red sea bream iridovirus between fish farms via seawater using environmental DNA. 51st Scientific Symposium of the US-Japan Natural Resources Aquaculture Panel, August 2023.

c) National conferences:

1
Kurobe T, Kiryu I, Kawato Y, Nitta M, Takada Y, Ito T. Investigation on detection of KHV in latent infection. National Conference for Evaluating Risk of Releasing Koi Carp into the Wild. December 2023.

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 WOAH Members?

No

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	ISO certificate of accreditation.pdf	ISO certificate of accreditation.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
PCR	Perry Johnson Laboratory Accreditation, Inc.

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

Yes

Access to the laboratory is restricted. Personnel uses PPEs and follows basic laboratory procedures to avoid accidental exposure to the pathogen. All contaminated lab supplies (e.g., dissecting tools) are autoclaved to prevent the pathogen from releasing into the environment.

TOR9: SCIENTIFIC MEETINGS

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

No

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?

Yes

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

No

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

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOAH REF. LABS/ ORGANISING WOAH REF. LAB.
Determining a laboratory's capability to conduct specific diagnostic tests (EU ring test)	Participant	43	National Institute for Aquatic Resources , Technical University of Denmark

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?

No

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?

Yes

Purpose for inter-laboratory test comparisons1	**Role of your reference laboratory (organizer/participant)**	**No. participating laboratories**	**Name of the Test**	**WOAH Member Countries**
Determining a laboratory's capability to conduct specific diagnostic tests (National ring test)	Organiser	24	National ring test of KHV disease	JAPAN,

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No