

WOAH Reference Laboratory Reports Activities 2024

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LABORATORY INFORMATION

*Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Koi herpesvirus disease
*Address of laboratory:	422-1 Nakatsuhamaura Minami-ise, Mie 516-0193
*Tel:	+81599661872
*E-mail address:	00000599@fra.go.jp
Website:	https://nria.fra.affrc.go.jp/e/DTC.html
*Name (including Title) of Head of Laboratory (Responsible Official):	Takafumi Ito (PhD), Director of Pathology division
*Name (including Title and Position) of WOA Reference Expert:	Takafumi Ito (PhD), Director of Pathology division
*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 WOA Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
ELISA	No	0	0
Direct diagnostic tests		Nationally	Internationally

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PCR with Sph primer	Yes	21	0
PCR with TK primer		21	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 WOA Member Countries	Country of recipients
Positive control DNA for PCR	PCR	Produced	0.1mL	0	0	JAPAN,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA 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 WOA 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] we performed a Ring Test for KHV qPCR assay with other KHVD Reference Laboratory. We are currently preparing a final report. 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 WOA Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

No

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)	WOAH Member Countries involved other than your country
KHV qPCR Ring Test	March 2024 through July 2024 (preparing report)	To validate reproducibility of qPCR assay for KHV (Ring Test)	Friedrich-Loeffler-Institut, Germany (Dr. Sören Woelke)	GERMANY

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:

We collected epidemiological data for a novel cyprinid herpesvirus, which is called 'KHV variant'.

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

Ito T, Yuasa K, Kurobe T. Vertical Transmission of Cyprinid Herpesvirus 3 (CyHV-3) in Common Carp *Cyprinus carpio*: Experimental Insights and Implications. *Turk. J. Fish. & Aquat. Sci.* 24(11), TRJFAS25671. <https://doi.org/10.4194/TRJFAS25671>

Kawato Y, Mizuno K, Harakawa S, Takada Y, Yoshihara Y, Kawakami H, Ito T: Assessing the risk of wild fish around aquaculture environment as a source for RSIV outbreaks. *Dis. Aquat. Org.* 158, 65-74, <https://doi.org/10.3354/dao03788>

b) International conferences:

1

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(4th Regional Meeting for WOAHP Reference Centres in Asia Pacific)

c) National conferences:

1

Kurobe T, Kawato Y, Takada Y, Ito T, Hirai M, Harakawa S, Suzuki K. Seasonal dynamic changes of *Edwardsiella anguillarum* in Seabream aquaculture farms in Japan. *Fish Pathology*, Sep 2024, Tokyo, Japan

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 WOAHP Members?

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

19. Is your quality management system accredited?

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

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?

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS
Infection with koi herpesvirus	Participant	3	Friedrich-Loeffler-Institut, Germany Centre for Environment Fisheries and Aquaculture

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Science

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?

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOA Ref. Labs/ organising WOA 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 WOA 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 WOA 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	WOAH Member Countries
Determining a laboratory's capability to conduct specific diagnostic tests (National ring test)	Organiser	24	Determining a laboratory's capability to conduct specific diagnostic tests	JAPAN,

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No