Takafumi Ito - Koi herpesvirus disease - JAPAN

WOAH Reference Laboratory Reports Activities 2023
Activities in 2023
This report has been submitted: 5 juin 2024 07:57

Laboratory Information

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

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

<table>
<thead>
<tr>
<th>Diagnostic Test</th>
<th>Indicated in WOAH Manual (Yes/No)</th>
<th>Total number of test performed last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect diagnostic tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELISA</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Direct diagnostic tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCR with Sph primer</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>PCR with TK primer</td>
<td>14</td>
<td>0</td>
</tr>
</tbody>
</table>

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 (non-WOAH-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

<table>
<thead>
<tr>
<th>NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED</th>
<th>DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KHV qPCR (Ring Test)</td>
<td>[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.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Title of the study</th>
<th>Duration</th>
<th>PURPOSE OF THE STUDY</th>
<th>PARTNERS (INSTITUTIONS)</th>
<th>WOAH MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>KHV qPCR Ring Test</td>
<td>March 2024 through July 2024 (In progress)</td>
<td>To validate reproducibility of qPCR assay for KHV (Ring Test)</td>
<td>Friedrich-Loeffler-Institut, Germany</td>
<td>GERMANY</td>
</tr>
<tr>
<td>Epitope mapping of the monoclonal antibody IP5B11 for VHSV</td>
<td>2019-2024</td>
<td>To identify the target (epitope) of the antibody IP5B11 for detecting VHSV</td>
<td>Technical University of Denmark</td>
<td>DENMARK</td>
</tr>
</tbody>
</table>

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

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:

6


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.


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 septicemia virus – facilitated by genome sequencing of carpione novirhabdovirus. Vet Res. 2023;54:35.


b) International conferences:

2


c) National conferences:

1


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

<table>
<thead>
<tr>
<th>Quality management system adopted</th>
<th>Certificate scan (PDF, JPG, PNG format)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 17025</td>
<td>ISO certificate of accreditation.pdf</td>
</tr>
<tr>
<td></td>
<td>ISO certificate of accreditation.pdf</td>
</tr>
</tbody>
</table>

19. Is your quality management system accredited?

Yes

<table>
<thead>
<tr>
<th>Test for which your laboratory is accredited</th>
<th>Accreditation body</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR</td>
<td>Perry Johnson Laboratory Accreditation, Inc.</td>
</tr>
</tbody>
</table>

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

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

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

<table>
<thead>
<tr>
<th>Purpose for inter-laboratory test comparisons1</th>
<th>Role of your reference laboratory (organizer/participant)</th>
<th>No. participating laboratories</th>
<th>Name of the Test</th>
<th>WOAH Member Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determining a laboratory’s capability to conduct specific diagnostic tests (National ring test)</td>
<td>Organiser</td>
<td>24</td>
<td>National ring test of KHV disease</td>
<td>JAPAN</td>
</tr>
</tbody>
</table>

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOAH?
No

29. Additional comments regarding your report:
No