OIE Reference Laboratory Reports Activities

Activities in 2021

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Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Koi herpesvirus disease
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Website:	
Name (including Title) of Head of Laboratory (Responsible Official):	Takashi Kamaishi (Ph.D.), Director of Pathology Division, Fisheries Technology Institute
Name (including Title and Position) of OIE Reference Expert:	Takafumi Ito
Which of the following defines your laboratory? Check all that apply:	Research

ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

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 OIE Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
ELISA	No	0	0
Direct diagnostic tests		Nationally	Internationally
PCR with Sph primer	Yes	1	0
PCR with TK primer	Yes	1	0

ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards.
To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.

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

No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents to OIE Member Countries?

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

No

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

No

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

No

ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	OIE Member Countries involved other than your country
Diseases of Ornamental and Laboratory Fishes	2020-2021	Evaluation of the diseases status of ornamental and laboratory fishes	Dr.ir. Olga Haenen (Wageningen Bioveterinary Research)	THE NETHERLANDS
Epitope mapping of the mAb IP5B11 for diagnosis viral haemorrhagic septicaemia	2019-2023	Evaluation of the specificity of the diagnostic method	Prof. Dr. Niels Jørgen Olesen (Technical University of Denmark)	DENMARK

ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases

11. Did your Laboratory collect epizootiological data relevant to international disease control?

Yes

If the answer is yes, please provide details of the data collected:
We collected samples from local koi farmers (n>200) for screening of koi herpesvirus as a part of healthy survey program.

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

No

If the answer is no, please provide a brief explanation of the situation:
The data are not ready to disseminate to public yet.

13. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category)

a) Articles published in peer-reviewed journals: 5
Kawato Y, Cummins DM, Valdeter S, Mohr PG, Ito T, Mizuno K, Kawakami H, Williams LM, Crane MSJ, Moody NJG. Development of new real-time PCR assays for detecting Megalocytivirus across multiple genotypes. Fish Pathology (in press)

Kawato Y, Mekata T, Inada M, Ito T. Application of Environmental DNA for Monitoring Red Sea Bream Iridovirus at a Fish Farm. Microbiology Spectrum. 2021:9. e00796-21 https://doi.org/10.1128/Spectrum.00796-21

Ito T, Kamaishi T. Japanese amberjack Seriola quinqueradiata and red sea bream Pagrus major susceptibility to infectious hematopoietic necrosis virus (IHNV) isolate. Diseases of Aquatic Organisms. 2021:146:1-8.

Mekata T, Kawato Y, Ito T. Complete Genome Sequence of Carp Edema Virus Isolated from Koi Carp. Microbiology Resource Announcements. 2021. doi: 10:e00239-21. https://doi.org/10.1128/MRA.00239-21

Ito T. Studies on the prevention of cyprinid herpesvirus. Fish Pathology, 2021:55:95-101.

b) International conferences: 4
Ito T, Mekata T, Lorenzen N, Olesen NJ. Epitope mapping of monoclonal antibody MAb IP5B11 used for detection of viral haemorrhagic septicaemia virus by applying NGS on carpione rhabdovirus. The 20th International Conference on Diseases of Fish and Shellfish. (virtual conference)

Ito T, Haenen OL, Kawato Y, Mekata T. Transboundary spreading of fish viral disease via ornamental fish. The 20th International Conference on Diseases of Fish and Shellfish (virtual conference)

Yuasa K, Ito T. Susceptibilities of three kinds of hybrids between crucian carp and common carp, Carassius cuvieri x Cyprinus carpio, Carassius buergeri grandoculis x Cyprinus carpio and Carassius buergeri subsp.1 x Cyprinus carpio to cyprinid herpesvirus 3 (CyHV-3). The 20th International Conference on Diseases of Fish and Shellfish (virtual conference)

Yuasa K, Ito T. Intra vitam detection of cyprinid herpesvirus 3 (CyHV-3) in koi carp for export from Japan. The 20th International Conference on Diseases of Fish and Shellfish (virtual conference)

c) National conferences: 4
Ito T, Kamaishi T. Japanese amberjack Seriola quinqueradiata and red sea bream Pagrus major susceptibility to infectious hematopoietic necrosis virus (IHNV) isolate. National Conference of Fish Pathology, March 2021.

Ito T. The selective breeding of rainbow trout for resistance to viral haemorrhagic septicaemia (VHS) using few parental fish. National Conference of Fish Pathology, March 2021.

Kawana M, Suzuki K, Ito T, Mekata T, Kawato Y, Oseko N. Detection of a novel aquareovirus (close to B type) from salmonid broodstocks. National Conference of Fish Pathology, March 2021.

Takano T, Matsuyama T, Nakamura E, Kinan R, Matsuyama H, Yasuike M, Kiry I, Ito T, Matsuura Y, Nakayasu C. Identification of the causative agent of rash in Rainbow Trout. National Conference of Fish Pathology, March 2021.

d) Other:
(Provide website address or link to appropriate information) 0

ToR 7: To provide scientific and technical training for personnel from OIE Member Countries
To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

No

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
ISO17025	201111_ISO_certificate.pdf

16. Is your quality management system accredited?

Yes

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

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

Yes

(See Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, Chapter 1.1.4)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

No

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

No

ToR 10: To establish and maintain a network with other OIE Reference Laboratories designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results

20. Did your laboratory exchange information with other OIE Reference Laboratories designated for the same pathogen or disease?

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

No

22. Did your laboratory collaborate with other OIE Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

No

ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

Yes

Note: See Interlaboratory test comparisons in: Laboratory Proficiency Testing at: http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing see point 1.3

Purpose for inter-laboratory test comparisons[1]	No. participating laboratories	Region(s) of participating OIE Member Countries
Determining a laboratory's capability to conduct specific diagnostic tests (National ring test)	16	☐Africa ☐Americas ☒Asia and Pacific ☐Europe ☐Middle East
Determining a laboratory's capability to conduct specific diagnostic tests (EU ring test)	46	☐Africa ☒Americas ☒Asia and Pacific ☒Europe ☐Middle East

ToR 12: To place expert consultants at the disposal of the OIE

24. Did your laboratory place expert consultants at the disposal of the OIE?

Yes

Kind of consultancy	Location	Subject (facultative)
Rewriting and providing comments on OIE Manual of KHV disease (Chapter 2.3.6)	Japan	Rewriting OIE manual of KHV disease
Attendance at OIE Conference	Bangkok	32nd Conference of the OIE Regional Commission for Asia, the Far East and Oceania
Attendance at OIE Conference	Japan	3rd meeting of ad hoc steering committee meeting of regional collaboration framework

25. Additional comments regarding your report: