

OIE Reference Laboratory Reports Activities

Activities in 2021

This report has been submitted : 2022-02-16 11:46:28

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Infection with infectious salmon anaemia virus
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Website:	https://www.vetinst.no/en
Name (including Title) of Head of Laboratory (Responsible Official):	General Director, DVM Torill Moseng
Name (including Title and Position) of OIE Reference Expert:	Dr. Ole Bendik Dale, VMD, PhD, Section leader, Aquatic biosecurity research
Which of the following defines your laboratory? Check all that apply:	Governmental 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	
		Nationally	Internationally
Indirect diagnostic tests		Nationally	Internationally
Histopathology	Yes	912	0
Direct diagnostic tests		Nationally	Internationally
Immunohistochemistry	Yes	539	0
Real-time RT-PCR	Yes	4685	0
Sequencing	Yes	315	0
Cell culture	Yes	52	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
Whole genome sequencing of ISAV	2021 - ongoing	Diagnostics and research	Faroese Food and Veterinary Authority	DENMARK
ISAV vs. RBCs - The interaction between infectious salmon anaemia virus and Atlantic salmon red blood cells and its relation to infectious salmon anaemia pathogenesis	2016 - 2022	Study ISA pathogenesis	Food, Veterinary and Environmental Agency, the Faroes EURL, Copenhagen, 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:
Publishing ISAV sequence data from Norwegian outbreaks in open access database (Genbank)

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

Yes

If the answer is yes, please provide details of the data collected:
ISA outbreak locations and phylogenetic / epidemiological data on isolates and traditional epidemiological observations - open on official websites

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: 3

1.

Infectious Salmon Anemia Virus Shedding from Infected Atlantic Salmon (*Salmo salar* L.)-Application of a Droplet Digital PCR Assay for Virus Quantification in Seawater.

Weli SC, Bernhardt LV, Qviller L, Dale OB, Lillehaug A.

Viruses. 2021 Sep 4;13(9):1770. doi: 10.3390/v13091770.

PMID: 34578351

Affiliation

1Norwegian Veterinary Institute, P.O. Box 64, N-1431 Ås, Norway

2.

Short communication: Evaluation of charged membrane filters and buffers for concentration and recovery of infectious salmon anaemia virus in seawater.

Weli SC, Tartor H, Spilsberg B, Dale OB, Lillehaug A.

PLoS One. 2021 Jun 16;16(6):e0253297. doi: 10.1371/journal.pone.0253297. eCollection 2021.

PMID: 34133472

Affiliation

1Norwegian Veterinary Institute, Oslo, Norway.

3. No Evidence of the Vertical Transmission of Non-Virulent Infectious Salmon Anaemia Virus (ISAV-HPR0) in Farmed Atlantic Salmon

Debes Hammershaimb Christiansen 1, Petra Elisabeth Petersen 1, Maria Marjunardóttir Dahl 1, Nicolina Vest 1, Maria Aamelfot 2, Anja Bråthen Kristoffersen 2, Mona Dverdal Jansen 2, Iveta Matejusova 3, Michael D Gallagher 4, Gísli Jónsson 5, Eduardo Rodriguez 6, Johanna Hol Fosse 2, Knut Falk 2

Affiliations collapse

Affiliations

1National Reference Laboratory for Fish and Animal Diseases, Faroese Food and Veterinary Authority, 110 Torshavn, Faroe Islands.

2Norwegian Veterinary Institute, 0454 Oslo, Norway.

3Marine Scotland Science, Marine Laboratory, Aberdeen AB11 9DB, UK.

4The Roslin Institute and Royal (Dick) School of Veterinary Studies, University of Edinburgh, Edinburgh EH8 9YL, UK.

5Icelandic Food and Veterinary Authority, 220 Hafnarfjordur, Iceland.

6Benchmark Genetics Iceland, 220 Hafnarfjordur, Iceland.

PMID: 34960697 PMCID: PMC8708482 DOI: 10.3390/v13122428

b) International conferences: 1

<https://www.eurl-fish-crustacean.eu/fish/annual-workshop/25th-aw-2021>

c) National conferences: 1

Fish health report 2020 presented 11th March 2021, Bergen, Norway and streamed:

<https://www.tekna.no/fag-og-nettverk/miljo-og-biovitenskap/bio-og-klimabloggen/lansering-av-fiskehelse rapporten-2020/>

d) Other:

(Provide website address or link to appropriate information) 2

<https://www.vetinst.no/rapporter-og-publikasjoner/rapporter/2021/fiskehelse rapporten-2020>

<https://www.barentswatch.no/fiskehelse>

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?

Yes

a) Technical visits: 0

b) Seminars: 1

c) Hands-on training courses: 0

d) Internships (>1 month): 0

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.Fish Pathology - digital online	Slovakia, Turkey, Slovenia, Iceland, Serbia, Ireland, Sweden, Poland, Latvia, Cyprus, Denmark, UK,	Altogether 23

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, https://www.akkreditert.no/akkrediterte-organisasjoner/akkrediteringsomfang/?AkkId=222	Akkrediteringsdokument 8feb2022.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Flexible accreditation for real-time RT-PCR methods including ME07_181: ISAV matrix real-time RT-PCR	Norwegian Accreditation, member of EA,

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
The EU-RL Annual Inter-laboratory Proficiency Test	50+	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> 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)
Revision of OIE Aquatic Manual Chapter 2.3.4. Infection with HPR-deleted or HPR0 infectious salmon anaemia virus	web, with the Chilean OIE expert Sergio Marshall	Diagnostic procedures for ISA

25. Additional comments regarding your report:

NRL activities - The Norwegian Veterinary Institute (NVI) has in 2021 increased national activities esp in diagnostics/screening for ISA due to a continued, moderate increase in number of outbreaks and adressed this issue at several occasions incl scientific and branch meetings covered by the nationwide mass media. As NRL of Norway, NVI arranged a proficiency test for ISA and other viral diseases for designated, private fish disease testing laboratories.

Last years collaborative ISA research project application involving Chile was not granted by the Norwegian research council, but renewed appliciations will be submitted.
ISA.

The former OIE-expert expressed a need for improvements in handling the OIE tasks at NVI. The entire NVI ISA research and diagnostics on ISA is now organised in a network with a central leader, and includes OIE related activities. Several activities have been started to gain better control of ISA and this will also to improve NVI's capability to meet the requirements of OIE expert assistance.