

# WOAH Reference Laboratory Reports Activities 2022

## Activities in 2022

This report has been submitted : 1 mars 2023 17:34

### Laboratory Information

|  |   |
|--|---|
| <b>Name of disease (or topic) for which you are a designated WOA Reference Laboratory:</b> | Infection with salmonid alphavirus                                    |
| <b>Address of laboratory:</b>  | Norwegian Veterinary Institute, P.O. Box 64, 1431 Aas, Norway         |
| <b>Tel.:</b>   | +4723216000   |
| <b>E-mail address:</b>   | hilde.sindre@vetinst.no   |
| <b>Website:</b>  | <a href="https://www.vetinst.no/en">https://www.vetinst.no/en</a>     |
| <b>Name (including Title) of Head of Laboratory (Responsible Official):</b>                | Torill Moseng, Director General of the Norwegian Veterinary Institute |
| <b>Name (including Title and Position) of WOA Reference Expert:</b>                        | Dr. Hilde Sindre  |
| <b>Which of the following defines your laboratory? Check all that apply:</b>               | 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 WOA Manual (Yes/No) | Total number of test performed last year |                 |
|---------------------------|----------------------------------|--|-----------------|
| Indirect diagnostic tests |                                  | Nationally                               | Internationally |
| Histopathology            | Yes                              | 425                                      | 0               |
| Direct diagnostic tests   |                                  | Nationally                               | Internationally |
| Immunohistochemistry      | Yes                              | 13                                       | 0               |
|                           |                                  |  |                 |

|                        |     |      |   |
|------------------------|-----|------|---|
| Real-time RT-PCR       | Yes | 1053 | 0 |
| RT-PCR with sequencing | Yes | 189  | 0 |

## TOR2: REFERENCE MATERIAL

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

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA?H 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?H MEMBER COUNTRIES | COUNTRY OF RECIPIENTS |
|-------------------------------------|-------------------------|-------------------|-------------------------------------|--|---|-----------------------|
| Infectious field isolates SAV2/SAV3 | several                 | Norway            | 10 ml                               | 20 ml                                    | 2                                       | Europe                |
| Salmon sera from SAV-infected fish  | ELISA, VNT              | Norway            |                                     | 0,1 ml                                   | 1                                       | Europe                |

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA?H 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?H Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOA?H Standards for the designated pathogen or disease?

No

## TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

No

## TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOA 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 |
|---|-----------|---|---|--|
| Effects of a DNA and multivalent oil-adjuvanted vaccines against pancreas disease in Atlantic salmon ( <i>Salmo salar</i> ) challenged with salmonid alphavirus subtype 3 | 2021-2022 | Evaluate the effect of a DNA vaccine on viremia and neutralizing activity | Experimental Pathology Laboratories Inc., Elanco  | UNITED STATES OF AMERICA                               |
| Robust Atlantic salmon through fine-tuned genome editing (TUNESAL)  | 2020-2023 | Produce SAV-clones for experimental trials                                | IMR, Norway (project leader) INRA - French National Institute for Agricultural Research | FRANCE   |
| EPA immune - Can dietary EPA affect viral response in Atlantic salmon?  | 2021-2025 | Produce SAV-clones for experimental trials. Evaluate immune responses     | IMR (project leader) Norway, University of Manchester                                   | UNITED KINGDOM   |

## 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:

Data collected related to all Norwegian detections of SAV and also all PD cases

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:

An overview of the occurrence of SAV is presented in the annual Fish Health report. All reported cases of SAV are also presented continuously at our web page ( [Pankreassykdom \(PD\) - utbrudd og statistikk \(vetinst.no\)](#) ) including an inter-active map over outbreaks.

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:

1

*Effects of a DNA and multivalent oil-adjuvanted vaccines against pancreas disease in Atlantic salmon (Salmo salar) challenged with salmonid alphavirus subtype 3.*

Thorarinsson R, Wolf JC, Inami M, Sindre H, Skjerve E, Evensen Ø, Rimstad E.

*Fish Shellfish Immunol Rep.* 2022 Aug 10;3:100063. doi: 10.1016/j.fsirep.2022.100063. eCollection 2022 Dec.

b) International conferences:

1

2022 PD Trination meeting, Endinburgh, UK

c) National conferences:

1

Frisk Fisk, Bergen 2022

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

*The Fish Health report provide an annual status and risk evaluation of the fish health situation in Norway.*

<https://www.vetinst.no/rapporter-og-publikasjoner/rapporter/2022/fish-health-report-2021>

## TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAHA 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) |                                     |
|-----------------------------------|---|-------------------------------------|
| NS-EN ISO/IEC 17025               |   | Akkrediteringsdokument 13.01.23.pdf |

19. Is your quality management system accredited?

Yes

| Test for which your laboratory is accredited   | Accreditation body                    |
|--|---------------------------------------|
| Influenza A virus (matrix) - detection with real-time Rt-PCR (ME07_127)  | Norwegian Accreditation, member of EA |
| Flexible accreditation including all methods based on the same principle, this includes real-time RT-PCR for SAV | Norwegian Accreditation, member of EA |

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

Yes

**TOR9: SCIENTIFIC MEETINGS**

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

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOA?

No

**TOR10: NETWORK WITH WOA REFERENCE LABORATORIES**

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

Not applicable (only WOA Reference Laboratory designated for the disease)

24. Are you a member of a network of WOA Reference Laboratories designated for the same pathogen?

Not applicable (Only WOA Reference Laboratory designated for the disease)

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

Not applicable (Only WOA Reference Laboratory designated for the disease)

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?

Not applicable (Only WOA Reference Laboratory designated for the disease)

**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?

Yes

| Purpose for inter-laboratory test comparisons <sup>1</sup>  | Role of your reference laboratory (organizer/participant) | No. participating laboratories | Region(s) of participating WOA Member Countries               |
|---|---|--------------------------------|---|
| The EU-RL Annual Inter-laboratory Proficiency Test 2022 focused on identification of the pathogens causing the nonexotic and exotic fish diseases listed in Council Directive 2016/88EC, including ISA. In 2015, SAV was included for the first time. | Participant   | 44                             | Africa<br>America<br>Asia and Pacific<br>Europe<br>MiddleEast |

**TOR12: EXPERT CONSULTANTS**

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

No

29. Additional comments regarding your report:

No

*Less contact from other labs for advice and assistance, possibly connected to the covid-19 situation*