

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 18 juillet 2024 10:29

Laboratory Information

Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Viran haemorrhagic septicaemia
Address of laboratory:	Kemitorvet, Building 202, 2800 Kgs, Lyngby
Tel.:	+45 93518948
E-mail address:	abrj@aqua.dtu.dk
Website:	https://www.aqua.dtu.dk/ ; https://www.eurl-fish-crustacean.eu/
Name (including Title) of Head of Laboratory (Responsible Official):	Director Friedrich Wilhelm Köster
Name (including Title and Position) of WOA Reference Expert:	Senior scientist Britt Bang Jensen DVM, PhD, Head of Section
Which of the following defines your laboratory? Check all that apply:	Academic institution

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	
		Nationally	Internationally
Indirect diagnostic tests			
ELISA		6	1
Direct diagnostic tests			
Cell cultivation BF-2 cells		557	36
Cell cultivation EPC cells		557	36
RT-qPCR		75	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
BF-2, EPC, RTG-2, FHM, CHSE-214, CCB, SSN-1, ASK	Virus isolates on cell culture	yes	0	28x120ml (25cm ² cell culture flasks)	7	FAROE (ISLANDS), FRANCE, GREECE, ITALY, NORWAY, POLAND, SWEDEN,
VHSV isolates of	Positive control or	yes	0	6x1ml	1	BELGIUM,

various genotypes

validation of tests etc.,

4. Did your laboratory produce vaccines?

No

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

Yes

NAME OF THE WOAHA MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
KOREA (DEM. PEOPLE'S. REP. OF)	To advise farmers on biosecurity measures in relation to control of VHSV and other viral infections in farms. Also to advise governmental bodies on control of VHSV and other viral diseases on a national level.	By a visit to farms, and farmers association in Korea. And by visit to National Institute of Fisheries Science, with a meeting for governmental representatives and the WOAHA center for VHSV in Korea

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAHA Members other than the own?

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAHA MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Identification of virulence markers in viral hemorrhagic septicemia virus (VHSV)	3 months	To identify virulence markers for VHSV and validate these in an infection trial	National Institute of Fisheries Science, NIFS And DTU-AQUA	KOREA (REP. OF)

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAHA?

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 have asked all European countries for the prevalence and incidence of VHSV in our annual survey for fish diseases in Europe

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:

Report on survey and diagnosis of fish diseases in Europe disseminated at the 28th Annual Workshop of the National reference laboratories for fish diseases. Report available upon request.

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:

3

1: "Epitope mapping of the monoclonal antibody IP5B11 used for detection of viral haemorrhagic septicaemia virus facilitated by genome sequencing of carpione novirhabdovirus" <https://doi.org/10.1186/s13567-023-01166-w>

2: Viral Haemorrhagic Septicemia Virus (VHSV) Isolated from Atlantic Herring, *Clupea harengus*, Causes Mortality in Bath Challenge on Juvenile Herring. <https://doi.org/10.3390/v15010152>

3: Development of a novel real-time RT-PCR method using peptide nucleic acid (PNA) probes for detecting and genotyping of viral haemorrhagic septicaemia virus (VHSV). <https://doi.org/10.1016/j.aquaculture.2023.739408>

b) International conferences:

1

Time-course proteomic analysis of the early response induced by a DNA vaccine against viral haemorrhagic septicaemia (VHS) in rainbow trout

c) National conferences:

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?

Yes

a) Technical visit : 0

b) Seminars : 0

c) Hands-on training courses: 14

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	AUSTRIA	1
B	BELGIUM	1
B	BOSNIA AND HERZEGOVINA	1
C	COLOMBIA	1
B	CROATIA	1
B	CZECH REPUBLIC	2
B	DENMARK	18
B	ESTONIA	1
	FAROE (ISLANDS)	

B		1
B	FINLAND	2
B	FRANCE	2
B	GERMANY	1
B	GREECE	1
B	HUNGARY	1
B	ICELAND	3
B	IRELAND	3
B	ITALY	3
B	LATVIA	2
B	LITHUANIA	1
B	NORWAY	3
B	PHILIPPINES	1
B	POLAND	3
B	PORTUGAL	1
B	ROMANIA	1
B	SERBIA	1
C	SPAIN	1
B	SWEDEN	2
B	THE NETHERLANDS	2
B	TURKEY	1

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
DS/EN ISO/IEC17025:2017	Certifikat_05-0588_Akk EN sign.pdf	Certifikat_05-0588_Akk EN sign.pdf
DS/EN ISO/IEC17043:2010	Certifikat_05-0515_Akk EN sign.pdf	Certifikat_05-0515_Akk EN sign.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
VHSV Cell cultivation	DANAK 17025:2017
VHSV IFAT	DANAK 17025:2017
VHSV ELISA	DANAK 17025:2017
VHSV RT-PCR	DANAK 17025:2017
Proficiency tests for viruses in fish	DANAK 17043:2010

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

No

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?

No

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

No

26. Did your laboratory collaborate with other WOAHP 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 WOAHP Reference Laboratories for the same pathogen?

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the Test	WOAHP Member Countries
To primarily assess the identification of the fish viruses VHSV, IHNV, EHN, SVCV and IPNV by cell culture methods	Organizer and participant	43		
To assess the ability to identify fish pathogens by PCR: ISAV, SAV, KHV	Organizer and participant	43		
Interlaboratory proficiency test 2023 for WSSV	Organizer and participant	13		
Interlaboratory proficiency test 2023 for detection of TSV and YHV1	Organizer and participant	13		
Asia Pacific Laboratories Proficiency Test for Aquatic Animal Program - Fin Fish PCR	participant	1		
Asia Pacific Laboratories Proficiency Test for Aquatic Animal Program - Crustacean PCR	participant	1		

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No