

# OIE Reference Laboratory Reports Activities

## Activities in 2019

This report has been submitted : 2020-01-21 03:11:53

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| <b>Name of disease (or topic) for which you are a designated OIE Reference Laboratory:</b> | Infectious hypodermal and haematopoietic necrosis  |
| <b>Address of laboratory:</b>  | Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences #106, Nanjing Road, Qingdao Shandong 266071 CHINA (PEOPLES REP. OF) |
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| <b>Name (including Title) of Head of Laboratory (Responsible Official):</b>                | Dr. Qing-Li Zhang, Senior Researcher   |
| <b>Name (including Title and Position) of OIE Reference Expert:</b>                        | Dr. Jie Huang, Senior Researcher, Principle Investigator   |
| <b>Which of the following defines your laboratory? Check all that apply:</b>               | Academic   |

**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 |                                  |  |                 |
| PCR                       | Yes                              | 375                                      | 2               |
| Histopathology            | Yes                              | 10                                       | 0               |
| Direct diagnostic tests   |                                  |  |                 |
|                           |                                  |  |                 |

**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?

Yes

| Type of reagent available               | Related diagnostic test | Produced/ provide | Amount supplied nationally (ml, mg) | Amount supplied internationally (ml, mg) | No. of recipient OIE Member Countries | Region of recipients  |
|---|-------------------------|-------------------|-------------------------------------|--|---------------------------------------|---|
| IHHNV nucleic acid                      | PCR                     | provide           | 10 <sup>4</sup> reactions           | 10 <sup>3</sup>                          | 2                                     | <input type="checkbox"/> Africa<br><input type="checkbox"/> Americas<br><input checked="" type="checkbox"/> Asia and Pacific<br><input type="checkbox"/> Europe<br><input type="checkbox"/> Middle East |
| High Sensitive Detection Kits for IHHNV | LAMP                    | produced          | 47                                  | 0  | 1                                     | <input type="checkbox"/> Africa<br><input type="checkbox"/> Americas<br><input checked="" type="checkbox"/> Asia and Pacific<br><input type="checkbox"/> Europe<br><input type="checkbox"/> Middle East |

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?

Yes

| Name of OIE Member Country seeking assistance | Date (month) | No. samples received for provision of diagnostic support | No. samples received for provision of confirmatory diagnoses |
|---|--------------|--|--|
| INDONESIA                                     | December     | 4  | 4 tissue samples of IHNV                                     |
| EGYPT   | September    | 2  | 2 tissue samples of WSSV                                     |

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

Yes

| Name of the OIE Member Country receiving a technical consultancy | Purpose   | How the advice was provided  |
|--|---|--|
| INDONESIA  | OIE twinning project of China and Indonesia on WSD and IHNV | he first year of the project consists of a visit by the Expert from the Parent Laboratory to the Candidate Laboratory. In addition to a formal meeting to initiate the project, the Expert is to assess the capacity of the Candidate Laboratory including available equipment and level of staff training (Objective 1) and will work with Candidate Laboratory to begin development of a training plan for the staff member to be sent to the Parent Laboratory. |

***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 |
|---|-------------------------|--|--|---|
| OIE twinning project of China and Indonesia | August ,2019- June,2021 | twinning project to get OIE reference laboratory status for candidate laboratory | Fish Quarantine and Inspection Agency<br>Ministry of Marine Affairs and Fisheries of Indonesia | INDONESIA   |

***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:   |
| The surveillance area for WSD involved in 12 provinces of China. The major surveillance target species were shrimp. In total, WSSV was detected of samples with an average(within batch)positive rate of 7.9% |

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:                                |
| We submitted the data to Bureau of Fisheries, Ministry of Agriculture and Rural Affairs, P.R.China |

**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: 0  
No

b) International conferences: 3  
HUANG, Jie. Biosecurity system: rule and steps in shrimp disease prevention and control. International Workshop on Aquaculture Biosecurity. September 24-25th, 2019  
ZHANG, Qingli. Biosecurity of regional aquaculture and it's ecological effect. International Workshop on Aquaculture Biosecurity. September 24-25th, 2019  
DONG, Xuan. The epidemiology and biosecurity in shrimp. International Workshop on Aquaculture Biosecurity. September 24-25th, 2019

c) National conferences: 1  
Yang B, Wan X-Y, Xie G-S, Li C. Report for WSSV and IHNV testing in the National Laboratory Proficiency Testing Program. Sum-up Workshop of National Laboratory Proficiency Testing Program for Aquatic Diseases 2019 Ministry of Agriculture and Rural Affairs, PRC.

d) Other:  
(Provide website address or link to appropriate information) 4  
(1) Wan X-Y, Yang B, Huang J. Quarterly Aquatic Animal Disease Report of the Maricultural Organism Disease Control and Molecular Pathology Laboratory, Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences to the Ministry of Agriculture of China, the first quarter of 2019.  
(2) Wan X-Y, Yang B, Huang J. Quarterly Aquatic Animal Disease Report of the Maricultural Organism Disease Control and Molecular Pathology Laboratory, Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences to the Ministry of Agriculture of China, the second quarter of 2019.  
(3) Wan X-Y, Yang B, Huang J. Quarterly Aquatic Animal Disease Report of the Maricultural Organism Disease Control and Molecular Pathology Laboratory, Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences to the Ministry of Agriculture of China, the third quarter of 2019.  
(4) Wan X-Y, Yang B, Huang J. Quarterly Aquatic Animal Disease Report of the Maricultural Organism Disease Control and Molecular Pathology Laboratory, Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences to the Ministry of Agriculture of China, the fourth quarter of 2019.

**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: 1
- b) Seminars: 1
- c) Hands-on training courses: 1
- 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 |
|--|--|---|
| a  | Indonesia  | 2   |
| b  | Bangladesh, Brunei, Egypt, Indonesia, Malaysia, Philippines, Tunisia, Thailand | 20  |
| c  | Bangladesh, Brunei, Egypt, Indonesia, Malaysia, Philippines, Tunisia, Thailand | 20  |

**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)  |
|-----------------------------------|--|
| ISO/IEC 17025                     | ACCREDITED TESTING SCOPE□□□□□□□□(□□).pdf |

16. Is your quality management system accredited?

Yes

| Test for which your laboratory is accredited  | Accreditation body  |
|---|---|
| Infectious hypodermal and hematopoietic necrosis virus: Polymerase chain reaction(PCR) method for Infectious hypodermal and hematopoietic necrosis virus (IHHNV) GB/T 25878-2010; Quarantine protocol for Infectious hypodermal and haematopoietic necrosis SN/T 1673-2013; Manual of Diagnostic Tests for Aquatic Animals (OIE, 2018) Chapter 2.2.4 Infectious hypodermal and hematopoietic necrosis 4.3.1.2.3.5 | China National Accreditation Service for Conformity Assessment,CNAS |

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?

Yes

| National/<br>International | Title of event                                    | Co-organiser    | Date<br>(mm/yy) | Location       | No.<br>Participants |
|----------------------------|---|-----------------|-----------------|----------------|---------------------|
| International              | International Workshop on Aquaculture Biosecurity | NACA, OIE , FAO | 9/2020          | Qingdao, China | 40                  |

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

Yes

| Title of event  | Date<br>(mm/yy) | Location           | Role (speaker,<br>presenting poster,<br>short<br>communications) | Title of the work presented   |
|---|-----------------|--------------------|--|---|
| Laboratory Proficiency Testing Workshop                     | 3/2019          | Bangkok, Thailand  | participant  | Summarise the major findings of the initial PT rounds and to stimulate group discussion on diagnostic standards, method platforms and laboratory quality assurance management systems |
| OIE twinning project of China and Indonesia on WSD and IHNN | 8/2019          | Jakarta, Indonesia | speaker  | Profile of Twinning Project , Framework of twinning program training plan, WSD and IHNN OIE reference laboratory activities   |

**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?

Yes

| Purpose of the proficiency tests: <sup>1</sup> | Role of your Reference Laboratory (organiser/ participant) | No. participants | Participating OIE Ref. Labs/ organising OIE Ref. Lab.  |
|--|--|------------------|--|
| Asia-Pacific Laboratory Proficiency            | participant  | 26               | P.R.China, Burnei Darussalam, India, Indonesia, Iran, Malaysia, New Caledonia, Philippines, Sri Lanka, Thailand, Vietnam |
| WSSV proficiency test                          | organiser  | 1                | Fish Quarantine and Inspection Agency Ministry of Marine Affairs and Fisheries of Indonesia                              |

<sup>1</sup> validation of a diagnostic protocol: specify the test; quality control of vaccines: specify the vaccine type, etc.

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 <sup>1</sup>  | No. participating laboratories | Region(s) of participating OIE Member Countries   |
|---|--------------------------------|---|
| To organise National Testing Programme for Aquatic Animal Disease Laboratories in Aquatic Animal Epidemic Prevention System of China. To provide testing standards and samples for WSSV, and to analyze the results from the interlaboratory test Comparisons | 67                             | <input type="checkbox"/> Africa<br><input type="checkbox"/> Americas<br><input checked="" type="checkbox"/> Asia and Pacific<br><input type="checkbox"/> Europe<br><input type="checkbox"/> Middle East |
| To participate in Asia-Pacific Laboratory Proficiency Testing Program   | 26                             | <input type="checkbox"/> Africa<br><input type="checkbox"/> Americas<br><input checked="" type="checkbox"/> Asia and Pacific<br><input type="checkbox"/> Europe<br><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)   |
|--|---------------------------------------|---|
| OIE twinning project between China Indonesia on WSD and IHNN | Qingdao, China;<br>Jakarta, Indonesia | The Candidate Laboratory held a formal Project Launch Meeting on 27 August 2019 Two staff member from Candidate Laboratory visited the Parent Laboratory for training (17 September to 29 September 2019) |

25. Additional comments regarding your report: