

OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-01-27 01:09:09

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Acute hepatopancreatic necrosis disease
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Name (including Title) of Head of Laboratory (Responsible Official):	Arun K. Dhar Associate Professor & Director Aquaculture Pathology Laboratory
Name (including Title and Position) of OIE Reference Expert:	Arun K. Dhar Associate Professor & Director Aquaculture Pathology Laboratory
Which of the following defines your laboratory? Check all that apply:	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			
0	0	0	0
Direct diagnostic tests			
Conventional & Real-time PCR	Yes	536	122
Histopathology	Yes	20	1

**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
Positive Control Tissue	PCR	Produced	Approximately 1000-3000mg	Approximately 1000-3000mg	4	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Tissue sections	Histology	Produced	1	0	1	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <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
BELGIUM	Varied	04	0
BRAZIL	Varied	08	0
CANADA	Varied	09	0
CHILE	Varied	01	0
CHINA (PEOPLE'S REP. OF)	Varied	02	0
COLOMBIA	Varied	01	0
CZECH REPUBLIC	Varied	01	0
ECUADOR	Varied	10	0
FRANCE	Varied	05	0
GERMANY	Varied	01	0
ISRAEL	Varied	02	0
INDONESIA	Varied	01	0
JAPAN	Varied	02	0
MADAGASCAR	Varied	07	0
MEXICO	Varied	02	0
THE NETHERLANDS	Varied	11	0
PANAMA	Varied	01	0
RUSSIA	Varied	17	0
SINGAPORE	Varied	01	0
THAILAND	Varied	36	0

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
SAUDI ARABIA	Conducting training on Shrimp Disease Diagnostics for OIE Twinning Project between Jeddah Fish Health Safety Laboratory, Saudi Arabia and The University of Arizona, USA	Visited Saudi Arabia, attended conference, gave lectures and hands on training

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 Program	2018-2020	To improve the candidate laboratory compliance with OIE diagnostic standard for crustacean disease/ shrimp disease	Kingdom of Saudi Arabia	SAUDI ARABIA
OIE-Twinning Program	2015-2018	To improve the candidate laboratory compliance with OIE diagnostic standard for crustacean disease/ shrimp disease	Indonesia	INDONESIA
Training on shrimp disease diagnostics	2020	To improve the candidate laboratory disease diagnostic capability	West Bengal	INDIA
Workshop theoretical and practice n shrimp diseases	2020	Workshop on theoretical and practical aspect on shrimp diseases diagnosis and management	World Aquaculture Society (WAS)	

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?

No

If the answer is no, please provide a brief explanation of the situation:
Not applicable.

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:
Not applicable.

**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: 04

Schofield, Paul J., Noble, Brenda L., Aranguren Caro, L. Fernando, Mai, Hung N., Padilla, Tanner J., Millabas, J., and Dhar, Arun K. 2020. Impact of Acute Hepatopancreatic Necrosis Disease (AHPND) on the freshwater prawn (*Macrobrachium rosenbergii*) and Pacific white shrimp (*Penaeus vannamei*) at various salinities. *Aquaculture Research*, 00: 1-10.

Aranguren Caro, L. Fernando, Mai, Hung N., Kanrar, Siddhartha, Cruz-Flores, Roberto, and Dhar, Arun K. 2020. Isolation of a novel mutant of *Vibrio parahaemolyticus* pirABVP (+) that carries binary toxin genes but does not cause acute hepatopancreatic necrosis disease (AHPND) in Pacific white shrimp (*Penaeus vannamei*). *Microorganisms* 8, 1549.

Mai, Hung N., Cruz-Flores, Roberto, and Dhar, Arun K. 2020. Development of an indirect Enzyme Linked Immunoassay (iELISA) using monoclonal antibodies against *Photobacterium* insect related toxins, PirA and PirB released from *Vibrio* spp. *Journal of Microbiological Methods* 176: 106002.

Aranguren Caro, L. Fernando, Mai, Hung N., Noble, Brenda, and Dhar, Arun K. 2020. Acute hepatopancreatic necrosis disease (VPAHPND), a chronic disease in *Penaeus vannamei* population raised in Latin America. *Journal of Invertebrate Pathology*, 174, 107424.

b) International conferences: 0

c) National conferences: 1

Arun K. Dhar. 2020. "Diseases & Disease Management in Shrimp Aquaculture", National Fisheries School, Washington DC, Nov 16-20, 2020.

d) Other:

(Provide website address or link to appropriate information) 0

None.

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: 03
 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
a	India	15
b	Mexico	100
b	Peru	20
b	Mexico	30

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 17025:2017	UofAZ17025CertScopeV005 Exp dec 2022.pdf
ISO 17043:2010	APL ISO 17043.2010 Proficiency Certificate Exp Dec2022.pdf
USDA	APL USDA live crustaceans and samples permit Exp Mar2021.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Histology	ANSI-ASQ National Accreditation Board
PCR	ANSI-ASQ National Accreditation Board

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

No

(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?

No

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
Proficiency test- Feb, 2020	26	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Proficiency test- Aug, 2020	28	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Proficiency test histology	01	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input 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?

No

25. Additional comments regarding your report:

None