OIE Reference Laboratory Reports Activities

Activities in 2021

This report has been submitted : 2022-01-18 17:31:38

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Avian influenza
Address of laboratory:	Anand Nagar Bhopal 462 021 Madhya Pradesh INDIA
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E-mail address:	ctosh@hsadl.nic.in
Website:	www.nihsad.nic.in
Name (including Title) of Head of Laboratory (Responsible Official):	Dr.V.P.Singh, Director
Name (including Title and Position) of OIE Reference Expert:	Dr. Chakradhar Tosh, Principal Scientist
Which of the following defines your laboratory? Check all that apply:	Other: Autonomous body

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	
Indirect diagnostic tests		Nationally	Internationally
HI	Yes	1354	0
AGID	Yes	2648	0
Direct diagnostic tests		Nationally	Internationally
RT-PCR	Yes	2445	0
Real time RT-PCR	Yes	9911	0
Virus isolation	Yes	16587	0
Nucleotide sequencing & molecular pathotyping	Yes	29	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?

No

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:
Information on avian influenza viruses isolated including origin, subtype and nucleotide sequences for molecular epidemiological studies of HPAI outbreaks in India.

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:
The information was analysed and the report submitted to Department of Animal Husbandry and Dairying, Government of India.

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: 01
Kombiah S, Manoj Kumar, Murugkar HV, Nagarajan S, Tosh C, Senthilkumar D, Rajukumar K, Kalaiyarasu S, Gautam S, Singh R, Karikalan M, Sharma AK, Singh VP. 2021. Role of expression of host cytokines in the pathogenesis of H9N2-PB2 reassortant and non-reassortant H5N1 avian influenza viruses isolated from crows in BALB/c mice. Microb Pathog, 161(Pt A):105239.

b) International conferences: 03
Tosh C, Nagarajan S, Manoj Kumar, Murugkar HV, Singh VP. 2021. Avian influenza activities and suggestions for the network's future work, Presented at the "Regional Expert Network Meeting and Workshop for avian diseases in Asia and the Pacific," 29th and 30th September 2021 (Virtual Mode)

Verma AK, Manoj Kumar, Murugkar HV, Nagarajan S, Tosh C, Namdeo P, Singh R, Mishra S, Singh VP. 2021. Experimental infection and in-contact transmission of H9N2 avian influenza virus in crows. International Veterinary Pathology Congress 2021 XXXVIII Annual Conference of Indian Association of Veterinary Pathologists and XII Annual Meeting of Indian College of Veterinary Pathologists and International Symposium on "Advances in Veterinary Pathology for Diagnosis and Control of Emerging and Re-emerging Diseases of Livestock, Wild Animals and Poultry" 17th to 19th December, 2021

Nagarajan S, Kumar M, Tosh C. 2021. Introduction, reintroduction and evolution of H5 avian influenza virus in Indian Subcontinent. Technical seminar on avian influenza in the Webinar format organized by World Veterinary Poultry Association, 23 May 2021.

c) National conferences: 08
Tosh C. 2021. Preparedness and control of avian influenza. Workshop on avian influenza, Centre for Animal Health Studies, Tamilnadu Veterinary and Animal Sciences University, Tamilnadu, 19 Jan 2021.

Tosh C. 2021. Laboratory Diagnosis of Avian Influenza. Webinar on avian influenza by Medical & Health, Animal Husbandry, Medical education & National center for Disease Control" under program for inter-Sectoral coordination for prevention and control of zoonotic disease. SMS Medical College, Jaipur, Rajasthan, Regional Co-coordinator under ISCP, date 22 Jan 2021.

Tosh C. 2021. Avian Influenza with special reference to epidemiology, Diagnosis and Control. Avian influenza awareness program for students and staff of the Department of Veterinary Microbiology, Veterinary College, Hebbal, Bangalore, Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar, Karnataka, India, 13 Feb 2021

Tosh C. 2021. Laboratory Diagnosis of Avian Influenza. Webinar on avian influenza by Medical & Health, Animal Husbandry, Medical education & National center for Disease Control" under program for inter-Sectoral coordination for prevention and control of zoonotic disease. SMS Medical College, Jaipur, Rajasthan, Regional Co-coordinator under ISCP, 03 Mar 2021.

Tosh C. 2021. Avian influenza: Diagnosis, Molecular epidemiology and preparedness for Pandemic threat. Webinar: Bharat Ki Azadi Ka Amrit Mahotsav, India's 75 years of Independence, organized by ICAR-CARI, Izatnagar, Uttar Pradesh,India, 06 Sep 2021.

Nagarajan S. 2021. Avian influenza – a brief review. Awareness Webinar on Avian Influenza conducted by Centre For Animal Health Studies, TANUVAS, Chennai on 19 Jan 2021.

Nagarajan S. 2021. Avian Influenza; Prevention and Control Strategies. Online National Seminar on "Epidemiological Approaches to Mitigate Challenges Faced by Field Veterinarians" conducted by College of Veterinary Science & Animal Husbandry, Rewa, Madhya Pradesh, 28 Jan 2021.

Nagarajan S. 2021. Avian Influenza: Diagnosis, prevention and control measures. Sensitization e-workshop on important zoonotic diseases in Karnataka state" Organized by ICAR -NIVEDI, Bengaluru, 10 Feb 2021.

d) Other:
(Provide website address or link to appropriate information) 0

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?

No

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: 2017	Certificate TC-8541_ext.pdf.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Real time RT-PCR	National Accreditation Board for Testing and Calibration Laboratories

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?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
3rd OIE Regional Meeting for Reference Centres in Asia and the Pacific”	02/21	Zoom meeting	Participation	Participation
OFFLU pre VCM September 2021 data discussion	08/21	Zoom Meeting	Participation	Participation
Regional Expert Network Meeting and Workshop for avian diseases in Asia and the Pacific	09/21	Zoom Meeting	Speaker	Avian influenza activities and suggestions for the network’s future work
Toward Mitigating Pandemic Influenza Risk - Regional consultation on avian influenza surveillance in Asia	12/21	Zoom Meeting	Participation	Participation

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?

Yes

Purpose of the proficiency tests: [1]	Role of your Reference Laboratory (organiser/ participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
OFFLU Ring Trial 2021 – Avian influenza virus A (AIV)	Participant	Information available from organiser CSIRO-ACDP (Australia)	CSIRO-ACDP (Australia)

[1] *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?

No

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

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: