

OIE Reference Laboratory Reports Activities

Activities in 2021

This report has been submitted : 2022-03-03 06:58:15

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Rabies
Address of laboratory:	KVAFSU-CVA Rabies Diagnostic Laboratory Department of Microbiology Veterinary College Karnataka Veterinary, Animal and Fisheries Sciences University (KVAFSU) Hebbal, Bengaluru 560024 INDIA
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Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Shrikrishna Isloor, Laboratory Director & Professor KVAFSU-CVA Rabies Diagnostic Laboratory. Department of Microbiology Veterinary College Karnataka Veterinary, Animal and Fisheries Sciences University (KVAFSU) Hebbal, Bengaluru 560024 INDIA
Name (including Title and Position) of OIE Reference Expert:	Dr. Shrikrishna Isloor Laboratory Director & Professor KVAFSU-CVA Rabies Diagnostic Laboratory. Department of Microbiology Veterinary College Karnataka Veterinary, Animal and Fisheries Sciences University (KVAFSU) Hebbal, Bengaluru-560024 INDIA
Which of the following defines your laboratory? Check all that apply:	Governmental 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			
Immnochromatography (LFA)	No	256	0
Direct diagnostic tests			
Direct Fluorescent Antibody (DFA)	Yes	488	
Rapid Fluorescent Focus inhibition Test (RFFIT)	Yes	200	
PCR	Yes	40	

**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?

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
BANGLADESH	To enhance awareness on the latest developments in rabies serology and sero-surveillance. To enhance laboratory capacity of SAARC MSs for rabies serology focusing on RFFIT. To enhance rabies control activities. To develop networking and coordination between rabies diagnostic/serology laboratories in SAARC MSs and the KVAFSU-CVA RDL, OIE Reference Laboratory for Rabies. To identify key knowledge gaps and issues related to rabies sero-surveillance and control in SAARC MSs.	Virtual training on rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT) on 11th to 13th October 2021
BHUTAN	To enhance awareness on the latest developments in rabies serology and sero-surveillance. To enhance laboratory capacity of SAARC MSs for rabies serology focusing on RFFIT. To enhance rabies control activities. To develop networking and coordination between rabies diagnostic/serology laboratories in SAARC MSs and the KVAFSU-CVA RDL, OIE Reference Laboratory for Rabies. To identify key knowledge gaps and issues related to rabies sero-surveillance and control in SAARC MSs.	Virtual training on rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT) on 11th to 13th October 2021
INDIA	To enhance awareness on the latest developments in rabies serology and sero-surveillance. To enhance laboratory capacity of SAARC MSs for rabies serology focusing on RFFIT. To enhance rabies control activities. To develop networking and coordination between rabies diagnostic/serology laboratories in SAARC MSs and the KVAFSU-CVA RDL, OIE Reference Laboratory for Rabies. To identify key knowledge gaps and issues related to rabies sero-surveillance and control in SAARC MSs.	Virtual training on rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT) on 11th to 13th October 2021
JAPAN	To enhance awareness on the latest developments in rabies serology and sero-surveillance. To enhance laboratory capacity of SAARC MSs for rabies serology focusing on RFFIT. To enhance rabies control activities. To develop networking and coordination between rabies diagnostic/serology laboratories in SAARC MSs and the KVAFSU-CVA RDL, OIE Reference Laboratory for Rabies. To identify key knowledge gaps and issues related to rabies sero-surveillance and control in SAARC MSs.	Virtual training on rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT) on 11th to 13th October 2021
NEPAL	To enhance awareness on the latest developments in rabies serology and sero-surveillance. To enhance laboratory capacity of SAARC MSs for rabies serology focusing on RFFIT. To enhance rabies control activities. To develop networking and coordination between rabies diagnostic/serology laboratories in SAARC MSs and the KVAFSU-CVA RDL, OIE Reference Laboratory for Rabies. To identify key knowledge gaps and issues related to rabies sero-surveillance and control in SAARC MSs.	Virtual training on rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT) on 11th to 13th October 2021

PAKISTAN	To enhance awareness on the latest developments in rabies serology and sero-surveillance. To enhance laboratory capacity of SAARC MSs for rabies serology focusing on RFFIT. To enhance rabies control activities. To develop networking and coordination between rabies diagnostic/serology laboratories in SAARC MSs and the KVAFSU-CVA RDL, OIE Reference Laboratory for Rabies. To identify key knowledge gaps and issues related to rabies sero-surveillance and control in SAARC MSs.	Virtual training on rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT) on 11th to 13th October 2021
SRI LANKA	To enhance awareness on the latest developments in rabies serology and sero-surveillance. To enhance laboratory capacity of SAARC MSs for rabies serology focusing on RFFIT. To enhance rabies control activities. To develop networking and coordination between rabies diagnostic/serology laboratories in SAARC MSs and the KVAFSU-CVA RDL, OIE Reference Laboratory for Rabies. To identify key knowledge gaps and issues related to rabies sero-surveillance and control in SAARC MSs.	Virtual training on rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT) on 11th to 13th October 2021
INDIA	Programme for strengthening inter-sectoral coordination for prevention and control of zoonotic diseases	Awareness on Zoonotic diseases

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:

In this Laboratory, for detection of Rabies virus from brain samples of various animals (dog, pig, cattle, buffalo, cat, horses, goat, Jackel, Wolf, Hyna, Bat, Elephants and Hog Dear) anti-N protein rabies monoclonal antibody based DFA and dRIT are being routinely employed. During Jan-DEC, 2021, 488 brain samples of different species of animals from various states of India were tested by DFA for rabies viral inclusions. Of these, 388 were found to be positive. Serum samples (200) were tested by RFFIT to assess anti rabies vaccinal antibody titre. This was done majorly for international movement of pets.

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 details of the data has been submitted to Department of Animal Husbandry and Dairying (DAHD) and National Center for Disease Control (NCDC), Govt. 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: 2

1. Kavitha Govindaiah, Dilip Lakshman, Isloor Shrikrishna, Rathnamma Doddamane, Sharada Ramakrishnaiah, Narayanaswamy H Doddappaiah, Byregowda S Munivenkatappa, Venkatesha M Dasappa Gupta, Gyanendra Gongal, Avinash S Bhat, Hridya S Varughese, Tilak Chandan, Shivakumar and Vinay C Prakash Rao. (Submitted in 2021. Published in 2022). "Comparative evaluation of lateral flow assay with direct fluorescent antibody assay for surveillance of rabies in animals in India" The Pharma Innovation Journal 2022; SP-11(2): 883-887

2. Gowri Yale, Marwin Lopes, Shrikrishna Isloor, Jennifer R. Head, Stella Mazeri, Luke Gamble, Kinzang Dukpa, Gyanendra Gongal and Andrew D. Gibson. (Submitted in November 2021, Published in January 2022). "Review of Oral Rabies Vaccination of Dogs and Its Application in India". Viruses 2022, 14, 155. <https://doi.org/10.3390/v14010155>

b) International conferences: 1

1. Kavitha G, Dilip L, Hridya S V, Tinku D, Tilak Chandan SV, Vinay CR, Sharada R, Rathnamma D, Jyoti BD, Isloor, S (2021). 'Rabies in Herbivores: An Emerging Threat in India' Technical presentation in the XXXII Rabies In The Americas (RITA), Brasil held online on October 26-29, 2021.

c) National conferences: 1

1. Kavitha, G., Isloor, S., Rathnamma, D., Narayanaswamy, H.D., Byregowda, S. M., Venkatesha, M.D., Sharada, R., Dilip, L., Hridya, S.V., Tilak Chandan and Vinay, C.P. (2021). 'A study on the epidemiology of rabies in animals in India' Technical presentation in the 13th National Women's Science Congress held at NMKRV College for Women, Bengaluru on 20-21st November 2021.

d) Other:

(Provide website address or link to appropriate information) 0

Nil

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: 0

b) Seminars: 19

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
b	Bhutan	3
b	Bangladesh	3
b	India	2
b	Japan	2
b	Nepal	3
b	Pakistan	3
b	Srilanka	3

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	ISO-Certificate of Accreditation_Rabies Diagnostic Laboratory.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Direct Fluorescent Antibody assay	Quality and Accreditation Institute, Centre for Laboratory Accreditation
Rapid Fluorescent Focus Inhibition Test	Quality and Accreditation Institute, Centre for Laboratory Accreditation
Polymerase Chain Reaction	Quality and Accreditation Institute, Centre for Laboratory Accreditation

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/ International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
National	"Tripartite Regional Workshop on Diagnosis, Surveillance and Control of Rabies"	National Centre for Disease Control (NCDC), Govt. of India	12th January 2021	Bengaluru	82 participants from 11 states
International	OIE Virtual Training Series on Rabies Serology for SAARC Region	OIE Regional Representation for Asia and the Pacific, Japan	11-13th October 2021	Bengaluru	19 from 7 countries

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
OIE Virtual Workshop on Oral Rabies Vaccines (ORVs)	24-25 February 2021	Online-Zoom meeting	Participant	-The themesfor the meeting are 1) to identify and share challenges and success stories in carrying out key activities of OIE Reference Centres (RCs) and to discuss the way forward to improve their services; and 2) to explore effective waysto match the needs of OIE Members and capabilities of RCs, especially via the OIE Laboratory Twinning Programme.
88th Annual General Session of the World Assembly of National Delegates to the World Organisation for Animal Health (OIE)	24 - 28 May 2021	Online-Zoom meeting	Participant	-
OIE's RABLAB meeting	15 June 2021	Online	participant	OIE's RABLAB meeting
OIE Rabies Vaccine Bank - 2021 Call for Tender - Selection Committee	5-8 July 2021	Online	Member	Member of the Selection Committee of the OIE Rabies Vaccine Bank call for tender,
32nd Conference of the OIE Regional Commission for Asia, the Far East and Oceania will be held on 15-16 September	15-16 September 2021	Online	Participant	The Conference of the OIE Regional Commissions is the OIE institutional meeting held biannually with the purpose to examine animal health, animal welfare and animal production food safety issues within the Region.

OIE Virtual Workshop on Oral Rabies Vaccines (ORVs)	28 February 2022	Online	Participant	The themes for the meeting are 1) to identify and share challenges and success stories in carrying out key activities of OIE Reference Centres (RCs) and to discuss the way forward to improve their services; and 2) to explore effective ways to match the needs of OIE Members and capabilities of RCs, especially via the OIE Laboratory Twinning Programme.
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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?

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?

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?

Yes

Kind of consultancy	Location	Subject (facultative)
Online	Bhutan	Rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT)
Online	Bangladesh	Rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT)
Online	Nepal	Rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT)
Online	Pakistan	Rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT)
Online	Japan	Rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT)
Online	Srilanka	Rabies serology focusing on the Rapid Fluorescent Focus Inhibition Test (RFFIT)

25. Additional comments regarding your report:

The details of activities carried out at this laboratory are already provided in the report. Further the laboratory supporting post graduate and doctoral thesis programmes on Rabies.