

OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-02-17 10:11:25

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Rabies
Address of laboratory:	KVAFSU-CVA Rabies Diagnostic Laboratory, OIE Reference Laboratory for Rabies, Department of Microbiology, Veterinary College, Karnataka Veterinary, Animal and Fisheries Sciences University (KVAFSU) Hebbal, Bangalore 560024 INDIA.
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Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Shrikrishna Isloor, Laboratory Director, KVAFSU-CVA Rabies Diagnostic Laboratory, OIE Reference Laboratory for Rabies, Department of Veterinary Microbiology Veterinary College Hebbal, Bangalore 560024 INDIA.
Name (including Title and Position) of OIE Reference Expert:	Dr. Shrikrishna Isloor, Laboratory Director, KVAFSU-CVA Rabies Diagnostic Laboratory, OIE Reference Laboratory for Rabies, Department of Veterinary Microbiology Veterinary College Hebbal, Bangalore 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			
Immunochromatography (LFA)	No	383	0
Direct diagnostic tests			
Direct Fluorescent Antibody(DFA)	Yes	383	
Rapid Fluorescent Focus inhibition Test(RFFIT)	Yes	114	2
PCR	Yes	80	

**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
SRI LANKA	Screening brain samples of wild animals for rabies virus variants. Discussed about molecular characterization and especially nucleotide sequencing.	Telephonic and Email based
BANGLADESH	To Strengthen the diagnostic capability and have uniform diagnostic surveillance in the region.	Oie virtual training series on rabies diagnosis for SAARC region.
BHUTAN	To Strengthen the diagnostic capability and have uniform diagnostic surveillance in the region.	Oie virtual training series on rabies diagnosis for SAARC region.
NEPAL	To Strengthen the diagnostic capability and have uniform diagnostic surveillance in the region.	Oie virtual training series on rabies diagnosis for SAARC region.
PAKISTAN	To Strengthen the diagnostic capability and have uniform diagnostic surveillance in the region.	Oie virtual training series on rabies diagnosis for SAARC region.
MALDIVES	To Strengthen the diagnostic capability and have uniform diagnostic surveillance in the region.	Oie virtual training series on rabies diagnosis for SAARC region,
INDIA	To Strengthen the diagnostic capability and have uniform diagnostic surveillance in the region.	Oie virtual training series on rabies diagnosis for SAARC region.
SRI LANKA	To Strengthen the diagnostic capability and have uniform diagnostic surveillance in the region.	Oie virtual training series on rabies diagnosis for SAARC region.

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, sheep, goat and wild carnivores) anti-N protein rabies monoclonal antibody based DFA and dRIT are being routinely employed. During Jan-DEC, 2020, 383 brain samples of different species of animals from Various states of India were tested by DFA for rabies viral inclusions. Of these, 302 Were found to be positive Serum samples (116) 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. pf 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: 6

1. Andrew D. Gibson , Ryan M. Wallace, Abdul Rahman, Omesh K. Bharti, Shrikrishna Isloor, Frederic Lohr, Luke Gamble, Richard J. Mellanby , Alasdair King and Michael J. Day. Reviewing Solutions of Scale for Canine Rabies Elimination in India. Trop. Med. Infect. Dis., 2020, Vol. 5, (47): 2-21. doi:10.3390/tropicalmed5010047 ,www.mdpi.com/journal/tropicalmed.

2. Shrikrishna Isloor. Street Dog survey- Implemented by Bruhut Bengaluru Mahanagara Palike Analysis and Report by Mission Rabies. APCRI journal, 2020, January, Vol.21 (2): 41-53.

3. Sharada,R., Rathnamma, D. and Isloor, S. A brief report on accreditation of KVAFSU-CVA Rabies Diagnostic Laboratory in compliance with ISO/IEC 17025:2017. APCRI journal, 2020, Vol.XXII, Issue 1, P.59-60.

4. Mohamed Ghouse, H, Shrikrishna Isloor ,Satyanarayan, M.L. and Gyanendra Gongal. Evaluation of brain sample collection through foramen magnum vis-a-vis conventional skull open methods for diagnosis of rabies in suspected animals. APCRI journal, 2020, Vol.XXII, Issue 1, P.40-48.

5. Lekshmi J. Das, Shkrishna Isloor, Sharada, R. and Rathnamma, D. Factors influencing the performance of anti rabies vaccines in dogs. APCRI journal, 2020, Vol.XXII, Issue 1, P.06-11.

6. S.M. Tamuli, J. B. Dutta, S. Isloor, K. J. Dutta, M. Buragohain, S. A. Arif and B. Debbarma. Rabies in stray dogs in Guwahati metro: Pathomorphology and diagnosis. Indian J. Veterinary Pathology. Accepted Manuscript ID:1390, Dt.13th July 2020 for publication.

b) International conferences: 1

1. Lekshmi J. Das, S. Isloor and Santhosh, A. K. (2020). Assessment of rabies post vaccinal seroconversion in free roaming dogs in Bengaluru by RFFIT and validation of an in-house IELISA. International e conference on "Immunology in 21st Century for Improvising one-health" held at Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut on Aug.7-8, 2020 . organized by the Society for Immunology & Immunopathology.

c) National conferences: 1

1. J B Dutta, B Debbarma, P K Boro, S A Arif, B C Baishya, U Barman, P Kakoty, S M Gogoi, S Isloor, K M Sunil and Dilip, L. (2020). Canine Rabies In Tvc, Guwahati, 38th Annual Convention and National Symposium of Indian

Society of Veterinary Medicine 2020. National Symposium on "Advancement in Veterinary Medicine in Mitigating Challenges to Animal Health", 5th - 7th February 2020

d) Other:

(Provide website address or link to appropriate information) 14

S. Isloor, R. Sharada and S. Abdul Rahman. "Rabies" Chapter in a book titled Animal- Origin viral zoonoses, Livestock Disease and Management series. Springer publications, 2020, pp1-37.

1. National Zoonoses Webinar, Jul 1, 2020, KNPCVS Shirwal & IVRI-TEC Pune

<https://us02web.zoom.us/j/87846449654?pwd=SGJDeTJaSzBnS09aaW1lbVYzWGJuQT09>

2. International eConference on Immunology in 21st Century for Improving One-Health

Aug 7th and 8th 2020 <https://us02web.zoom.us/j/89531416528?pwd=WTc3T3MzMzMyt3a2Q5a2R1RFczNkFCdz09>

3. International webinar on "ZERO RABIES: A STRATEGY TO CHANGE THE ENDEMIC STATUS TOWARDS ELIMINATION". 28th september, 2020. Hosted by TANVASU

<https://tanuvas.webex.com/tanuvas/j.php?MTID=m25376eb7d4f963940a12645663922055>

4. NATIONAL WEBINAR End Rabies: Collaborate, Vaccinate 28th sept 2020. MAFSU

Link: <https://meet.google.com/vuz-uukz-efn>

5. International webinar on "Epistemological approaches to animal disease control programmes with special reference to rabies" 28th & 29th September, 2020.

Zoom ID 9895213500, Organized by KVASU, IVA, CVAS, Mannuthy

6. Two day webinar on RAPID - Rabies Awareness, Prevention and It's Diagnosis, 29th and 30th September 2020.

In ASSociation with Veterinary College, KVAFSU, Bidar

<https://forms.gle/YHEQomLGKypi662M7>

7. Towards Strengthening animal rabies surveillance- Progressive India" - 30th September 2020 Organized by IVA

Link, <https://www.facebook.com/104637091241364>

8. <https://youtu.be/36qMR4PrGps>

9. [https://us02web.zoom.us/j/85725255310?](https://us02web.zoom.us/j/85725255310?pwd=a3MwczBkU053NXJhVHZFN3ZmREIUUT09)

[pwd=a3MwczBkU053NXJhVHZFN3ZmREIUUT09](https://us02web.zoom.us/j/85725255310?pwd=a3MwczBkU053NXJhVHZFN3ZmREIUUT09)

11. <https://www.docplexus.com/hbi-rabies>

12. https://echo.zoom.us/webinar/register/WN_AGB7gQXrTmibsxC_HLizZg

13. <https://event.webinarjam.com/channel/RabiesDay>

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: 24

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	BANGLADESH	4
b	BHUTAN	4
b	INDIA	3
b	MALDIVES	2
b	NEPAL	4
b	PAKISTAN	4
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-page-001 (1).jpg

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
International	Oie virtual training series on rabies diagnosis for SAARC region.	Oie RRAP, Japan	November, 2020	Bengaluru	24
National	Tripartite Regional Workshop on Diagnosis, Surveillance and Control of Rabies, Theme of Session: Intersectoral coordination (ISC) in Diagnosis, Surveillance and Control of Rabies	NCDC, Govt. of India.	January, 2021	Bengaluru	82

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
Updates and Progress in the SAARC region towards elimination of Dog mediated Human Rabies by 2030	18-20 May, 2020	Online-Zoom meeting	Speaker	How can SAARC countries benefit from the proposed OIE reference Laboratory on Rabies in India
A new initiative in OIE rabies laboratories Network	02nd July 2020	Online - Zoom meeting	Participant in the meeting	A new initiative in OIE rabies laboratories Network
Launching of United Against Rabies Forum by the Tripartite (FAO, OIE, WHO) : United against Rabies: One Health in action - partnering for success	22nd September, 2020	Online	Participant	participated in the event

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?

Yes

Title of the project or contract	Scope	Name(s) of relevant OIE Reference Laboratories
OIE twinning project on rabies	Strengthening diagnosis of rabies in India	CDC, Atlanta, USA and APHA, Weybridge, UK

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
For accreditation of their laboratory	2	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input 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?

Yes

Kind of consultancy	Location	Subject (facultative)
telephonic and Email based	Srilanka	Screening brain samples of wild animals for rabies virus variants. Discussed about molecular characterization especially nucleotide sequencing.

25. Additional comments regarding your report: