



# How can SAARC countries benefit from the proposed OIE Reference Laboratory for Rabies in India ?

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# Where are we in India .....



Veterinary College, Bangalore

# KVAFSU-CVA Rabies Diagnostic Laboratory

Dr. D. Rathnamma  
Professor & Biosafety Officer

Dr. Shrikrishna Isloor,  
Associate Professor & Lab. Director

Dr. R. Sharada,  
Assistant Professor & Quality Manager

Dr. M. Narayana Bhat,  
Dean, Veterinary College  
Bangalore

Dr. S. Abdul Rahman,  
Executive Director  
Commonwealth Veterinary Association

Dr. Ryan Wallace  
CDC, Atlanta, US

Dr. Anthony R. Fooks  
APHA, Weybridge, UK

# Mandates of Laboratory

## Diagnosis



- LFA
- DFA
- dRIT
- PCR
  - ✓ Conventional
  - ✓ Real time

## Seromonitoring



- RFFIT
  - ✓ Pet travel
  - ✓ Vaccination programme

## Post Graduate & Extra mural funded Research



- Phylogenetic analysis
  - ✓ G gene
  - ✓ N gene
  - ✓ G-L intergenic region
- LAMP
- Recombinant G protein ELISA

## Human Resource Development



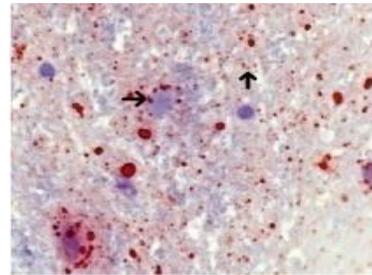
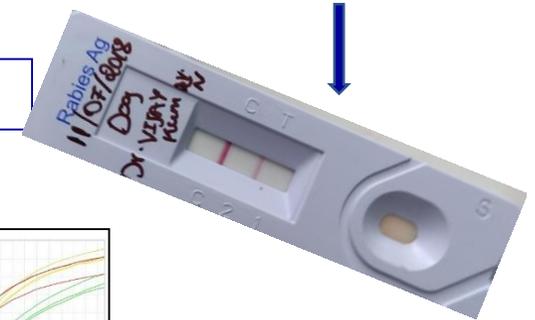
- Trainings / workshops
  - ✓ KVAFSU-CVA Laboratory
  - ✓ On-site / Regional

# Diagnosis of rabies

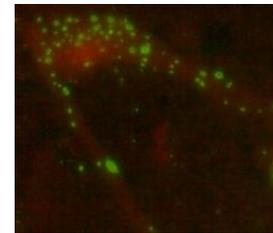
Sample collection at the field level and preliminary screening by Lateral Flow Assay



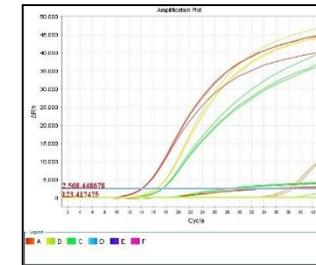
Sample receipt at Laboratory, recording and processing



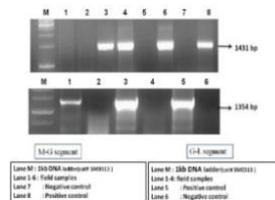
dRIT



DFA



Real Time-PCR



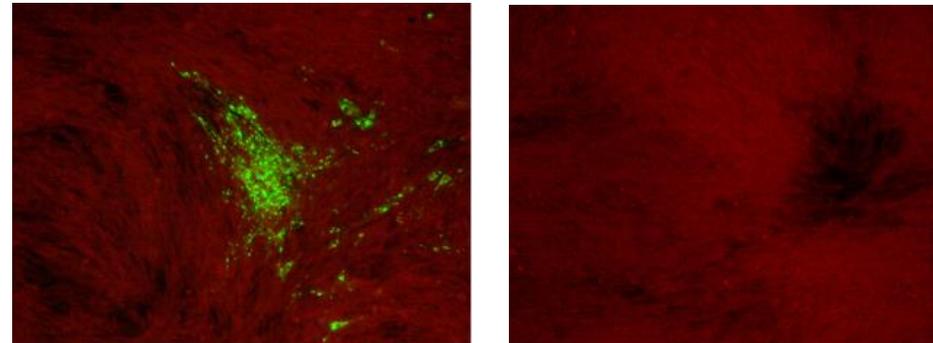
PCR

# Seromonitoring of anti rabies vaccinal antibodies

Receipt of serum samples at Laboratory, recording and processing



Pet travel



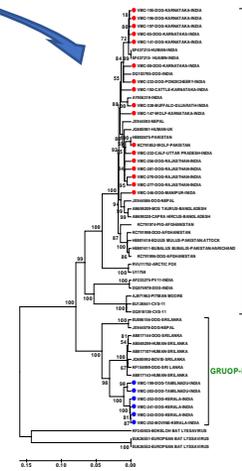
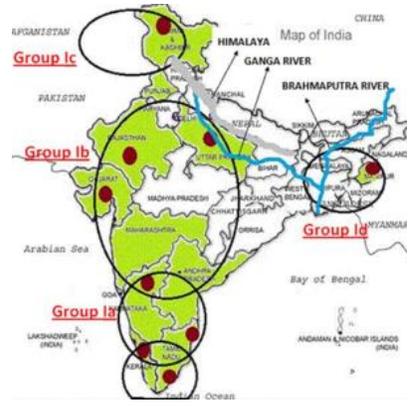
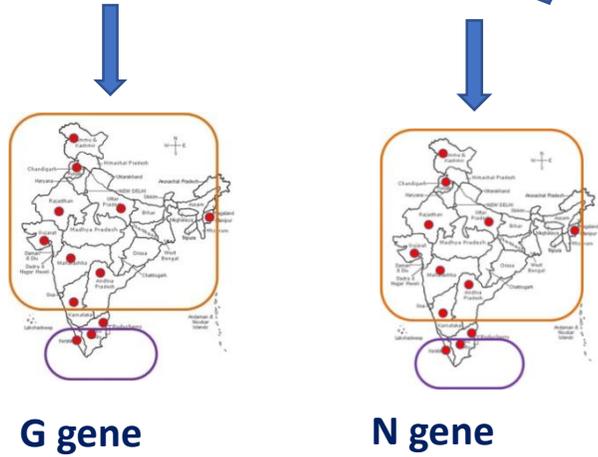
Mass dog vaccination

RFFIT

Reporting

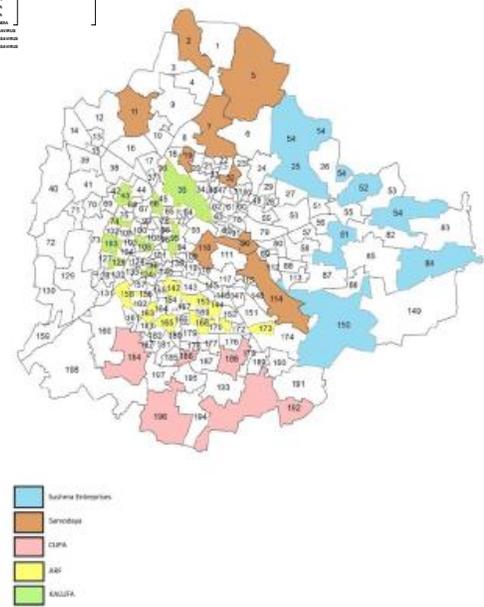
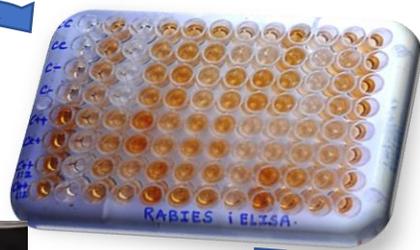
# Post Graduate & Extra mural funded Research

Molecular characterization



Doctoral Thesis= 5  
Masters thesis=7

Recombinant G protein ELISA



# Human Resource Development

Biosafety and Biosecurity



Sample collection, packing and transportation



Sample receipt at Laboratory, recording, processing and storage



Hands on training on DFA, dRIT and PCR



Reporting



# Training conducted at Laboratory from Jan, 2013 - March, 2020

Sl. No.	Title of the training	Date and Duration	No. of participants	State represented
1	dRIT training programme	30-01-2013 and 31-01-2013	36	Karnataka, Maharashtra, A.P ,T.N., Kerala, M.P, Punjab, Gujarat, Rajasthan, Uttaranchal Haryana , Assam
2	Diagnosis for rabies in animals	09-07-13 and 10-07-2013	7	Jharkhand , Kerala
3	Diagnosis for rabies in animals	22-02-2014	11	Karnataka, Jharkhand , Kerala M.P
4	One day workshop on rabies diagnosis in animals	09-02-2015	15	Karnataka , Meghalaya , U.P M.P
5	DFA training for trainees of XIX National Training Programme (CAFT)	27-11-2015	20	Karnataka , Rajasthan, M.P , Bihar, T.N, Pondicherry, Goa , Telangana, Odisha, A.P, U.P , Maharashtra ,
6	Advanced techniques for diagnosis of infectious and systemic disease in cattle, sheep, goat and dog	18-01-2016 to 22-01-2016	18	Karnataka
7	OIE twinning workshop 2016	05-07-2016 to 08-07-2016	12	Karnataka

8	OIE twinning workshop on rabies diagnosis and Quality management Proficiency test	21-02-2017 to 24-02-2017	12	Karnataka ,Manipur ,Gujarat ,Kerala United Kingdom
9	Fourth workshop on rabies diagnosis and quality management proficiency test	16-01-2018	11	Karnataka ,Kerala,H.P, M.P. , Maharashtra ,A.P ,Assam
10	Continued Veterinary Education programme on sample collection, transportation and diagnosis of rabies in animals (1 <sup>st</sup> batch)	26-04-2018	28	Karnataka
11	Continued Veterinary Education programme on sample collection, transportation and diagnosis of rabies in animals (2 <sup>nd</sup> batch)	03-05-2018	28	Karnataka
12	Continued Veterinary Education programme on sample collection, transportation and diagnosis of rabies in animals (3 <sup>rd</sup> batch)	10-05-2018	29	Karnataka
13	Continued Veterinary Education programme on sample collection, transportation and diagnosis of rabies in animals (4 <sup>th</sup> batch)	17-05-2018	39	Karnataka
14	Workshop on rabies diagnosis	24-02-2020 to 25-02-2020	18	Karnataka ,Maharashtra ,HP Delhi, West Bengal, Orrisa Gujurath, MP, Telangana Kerala, Jammu,Haryana

# Regional level workshops on Rabies diagnosis in India



**Himachal Pradesh**



**Assam**



**Gujarath**

**Manipur**



**Maharashtra**



**Andhra Pradesh**



**Lakshadweep**

# Regional level workshops in India

Sl. No.	Place	Date	Title	No. of participants
1	College of Vety. Science, Anand, Gujarat	28 Sept. 2020	Brain sample collection for Rabies diagnosis and Biosafety measures.	24
2	IGMC, Shimla, Himachal Pradesh	4 Sept., 2017	Brain sample collection and diagnosis of rabies in dogs	12
3	Veterinary college, Nagpur, Maharashtra	25 -29 Mar. 2019	Animal Rabies diagnosis	24
4	Veterinary college, Khanapara, Assam	5-6 Aug. 2019	OIE-compliant Diagnosis of Rabies in animals	41
5	Veterinary college, Tirupati, Andhra Pradesh	9-11 Oct. 2019	Laboratory diagnosis of Rabies in Animals	28
6.	Dept. of AHVS, Kavaratti, Lakshadweep	14-17 June 2017	Brain sample collection and diagnosis of rabies in dogs	14



**Network (animal rabies diagnosis in India)**

**Outcome:**

- **Training:**  
14 states
- **Samples:**  
17 states &  
2 UTs.

Lakshadweep islands

Andaman & Nicobar islands

# Laboratory Services to SAARC countries

- **Provide consultancy services**

- **Test and disease consultancy**
- **Disease surveillance on rabies and non-rabies lyssa viruses**
- **Control strategies**
- **Diagnostics**

- **Improving surveillance of rabies in animals**

- **To ensure systematic surveillance – accurate reporting of cases**
- **Dog vaccination**

➤ **Training in all Quality assurance systems**

**Health & safety procedures**

**Biosafety and biosecurity awareness & practice**

➤ **Knowledge transfer and training**

**Sample collection, Submission & Processing**

**Antigen detection methods,**

**Molecular diagnostic methods,**

**Antibody detection methods,**

**Proficiency testing,**

**Inter laboratory comparisons,**

**Developing quality standards**

➤ **SAARC Regional capacity building - “Hands on Training on Rabies Diagnosis in animals” was scheduled during 1st to 5th June 2020 – Postponed**

**Thank you all**

