World Organisation for Animal Health

Catherine Cetre-Sossah - -

WOAH Reference Laboratory Reports Activities 2025

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LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Rift Valley fever
***Address of laboratory:**	
***Tel:**	+33467593834
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Website:	www.cirad.fr
***Name (including Title) of Head of Laboratory (Responsible Official):**	Dr Nathalie VACHIERY, head of UMR ASTRE
***Name (including Title and Position) of WOAH Reference Expert:**	Dr Catherine CETRE-SOSSAH, virologist, RVF expert
***Which of the following defines your laboratory? Check all that apply:**	Research agency

TOR1: DIAGNOSTIC METHODS

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 WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
ELISA IgG	Yes	65	25
ELISA IgM	Yes	16	5
Direct diagnostic tests		Nationally	Internationally
Real-time RT-PCR	Yes	16	10

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAH?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members?

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAH Members?

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

No

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

9. Did your laboratory validate vaccines according to WOAH Standards for the designated pathogen or disease?

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAH Members?

Yes

Name of WOAH Member Country seeking assistance	Date	Which diagnostic test used	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
ITALY	2025-08-28	ELISA IgG RTqPCR	30	30
SOUTH AFRICA	2025-12-02	ELISA IgG ELISA IgM	5	5

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?

Yes

Name of the WOAH Member Country receiving a technical consultancy	Purpose	How the advice was provided
SAUDI ARABIA	Technical Advice for possible Twinning Project	Mission with recommandations
TANZANIA	Technical Advice for possible Twinning Project	Visioconference, Email exchanges

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH Members other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	WOAH Member Countries involved other than your country
PhD on Epidemiological and socio-economic status of Rift Valley fever (RVF) in Burundi	3 years	Investigate the socio-economic status of Rift Valley fever (RVF) in Burundi	LNV, Bujumbura, Burundi	BURUNDI
PhD on Epidemiological status and risk factors analysis of Rift Valley fever (RVF) in Burkina Faso	3 years	Investigate the epidemiological status of Rift Valley fever (RVF) in a One Health context (human and animal sampling)	Veterinary Services, Burkina Faso	BURKINA FASO
Support LNERV to maintain serology and molecular biology activities	Upon request since 2023	Support LNERV to maintain serology accreditation ISO17025 obtained through a training programme	LNERV-ISRA	SENEGAL

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

No

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

If the answer is yes, please provide details of the data collected:
Some epidemiological data from Burundi have been collected by the local veterinarian services, they all belong to Burundi and are not yet internationally available, they will be available when the publication will be accepted

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

No

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

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1. Pédarrieu A, Piro-Megy C, Quellec J and C Cêtre-Sossah. Pasteurization temperatures effectively inactivate Rift Valley fever viruses in milk. Journal of Virology. https://doi.org/10.1128/jvi.02026

2. Melinda K Rostal, Peter N Thompson, Assaf Anyamba, Bernard Bett, Catherine Cêtre-Sossah, Véronique Chevalier, Milehna Guarido, William B Karesh, Alan Kemp, A Desiree LaBeaud, Alison Lubisi, Louise Matthews, Veerle Msimang, M Kariuki Njenga, Noam Ross, Dan Tumusiime, William C Wilson, Jacqueline Weyer, Janusz T Paweska, Robert Swanepoel. Rift Valley fever epidemiology: shifting the paradigm and rethinking research priorities. Lancet Planet Health 2025 Published Online https://doi.org/10.1016/ j.lanplh.2025.101299.

3. Barry Y, Metz M, Krisztian L, Haas J, Brunn V-L, Beyit AD, et al. (2025) Local drivers of Rift Valley fever outbreaks in Mauritania: A one health approach combining ecological, vector, host and livestock movement data. PLoS Negl Trop Dis 19(9): e0013553. https://doi.org/10.1371/journal.pntd.0013553

4. Pedarrieu Aurélie, Cetre-Sossah Catherine. Molecular diagnosis of Phlebovirus riftense Infection using an L-Segment-BasedReal-TimeRT-PCR method.. 2025. In : Bunyaviruses: Methods and protocols. Boshra Hani (ed.). New York : Humana Press, 37-49. (Methods in Molecular Biology, 2893) ISBN 978-1-0716-4337-2 https://doi.org/10.1007/978-1-0716-4338-9

b) International conferences:

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1. CETRE-SOSSAH Catherine. 2025. Date 31 Octobre 2025. Phenuiviridae CORC – Scientific Consultation on Rift Valley Fever Medical Countermeasures. A CORE Protocol for RVF Vaccines Clinical trials evaluation in the context of outbreaks. Session 3. Clinical considerations and possible endpoints: defining primary and secondary objectives. Invitation to be part of the Panel discussion Members.

2. CETRE-SOSSAH Catherine. 2025. FAO webinar. Date 20 November 2025. Strengthening capacity in Africa to tackle Rift Vally fever: Enhancing early warning, surveillance, preparedness, and response. Webinar 1. Leveraging early warning and risk-based surveillance to inform timely and cost-effective decisions. Titre de la présentation : RVF diagnostics: laboratory methods, key challenges, and latest developments

3. NKUNDWANAYO Canésius et al. 2025. Asia-Africa Regional Workshop On Animal Disease Prevention and Control. Sanya, China. November 3rd-5th, 2025. Oral presentation titled Epidemiological status of zoonotic diseases in Burundi: Cases of Rift Valley Fever and Brucellosis

4. Razafindramiadana Océane. 2025. Participation to the Combined Rift Valley Fever, Capripox virus and peste des petits ruminants national reference laboratories workshop 02-03 October 2025, Belgium.

c) National conferences:

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

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members?

Yes

a) Technical visit : 0

b) Seminars : 0

c) Hands-on training courses: 1

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
C	SAUDI ARABIA	5

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO17025v2017	Certificate Scan	Accreditation_Portée Détaillée.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
ELISA IgG	COFRAC
ELISA IgM	COFRAC
RTqPCR	COFRAC

20. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned?

Yes

All efforts are being made to work under biosafety level 3 containment facilities in Montpellier and under biosafety level 2 containment under dedicated safe hood cabinet wherever it is available. Personal equipment (dedicated laboratory coat, gloves, masks, glasses) are being used. Senegalese and French rules are followed up. Transport of biological materials considered as infectious substances by air are done according to the international regulation's guidelines developed by the national regulations, ICAO/IATA/CITES* regulations, through an air carrier company from ISRA-LNERV to CIRAD (Montpellier, France) and vice versa. The reference laboratory is used to receive and send infectious animal substances by air and has persons dedicated to the management of these shipments that are fully aware of the relevant regulations and of the proper process (identification, categorization, packaging, marking, labelling, documenting and refrigerating). When the candidate laboratory will intend to send infectious animal samples, contact will be made with the person in charge to make the shipment and written procedures and assistance will be given. Briefly, the IATA dangerous goods regulation indicate for the packaging instruction 602 for the shipment to arrive in good condition and to present no hazard to persons or to animals is the following: the package must include • A inner packaging comprising, watertight primary receptacle, a watertight secondary packaging • A list of the content placed between the secondary and the outer packaging • A rigid outer packaging of adequate strength for its capacity, weight and intended use. A special packaging Division 6.2 Infectious Substances must be used and assigned to UN2814 or UN2900 and the words of "Suspected Category A Infectious substances" must be shown

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAH?

Yes

Title of event	Date	location	Role (speaker, presenting poster, short communications)	Title of the work presented
Combined Rift Valley Fever, Capripox virus and peste des petits ruminants national reference laboratories workshop 02-03 October 2025	2025-10-01	Belgium	Participation	Participation
CORC Seminar. Phenuiviridae CORC – Scientific Consultation on Rift Valley Fever Medical Countermeasures. A CORE Protocol for RVF Vaccines Clinical trials evaluation in the context of outbreaks. Session 3. Clinical considerations and possible endpoints: defining primary and secondary objectives. Invitation to be part of the Panel discussion Members.	2025-10-30	online	Speaker	Clinical Observations of RVF and associated diagnostic in the frame of the RVF outbreak in Senegal in 2025
FAO Seminar. Strengthening				

capacity in Africa to tackle Rift Vally fever: Enhancing early warning, surveillance, preparedness, and response. Webinar 1. Leveraging early warning and risk-based surveillance to inform timely and cost-effective decisions.	2025-11-19	online	Speaker	RVF diagnostics: laboratory methods, key challenges, and latest developments

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOAH Reference Laboratories designated for the same pathogen or disease?

Yes

24. Are you a member of a network of WOAH Reference Laboratories designated for the same pathogen?

Not applicable (only WOAH Reference Laboratory designated for the disease

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen during the past 2 years?

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAH Ref. Labs/ organising WOAH Ref Lab
ELISA IgG and PCR	Participant	22	IZS, Teramo, Italy
ELISA IgG and IgM	Participant	5	ARC-OVI, Pretoria, South Africa

26. Did your laboratory collaborate with other WOAH 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 WOAH Reference Laboratories
ELISA IgM RVF in camels	ELISA IgM development for diagnostic of RVF in camels	IZS, Teramo, Italy

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
ELISA IgG and PCR on FAO request	Organizer for 7 participating laboratories	7	ELISA IgG and PCR	ETHIOPIA,
ELISA IgG and PCR on FAO request	Organizer for 7 participating laboratories	7	ELISA IgG and PCR	KENYA,
ELISA IgG and PCR on FAO request	Organizer for 7 participating laboratories	7	ELISA IgG and PCR	MADAGASCAR,
ELISA IgG and PCR on FAO request	Organizer for 7 participating laboratories	7	ELISA IgG and PCR	MOZAMBIQUE,
ELISA IgG and PCR on FAO request	Organizer for 7 participating laboratories	7	ELISA IgG and PCR	SENEGAL,
ELISA IgG and PCR on FAO request	Organizer for 7 participating laboratories	7	ELISA IgG and PCR	UGANDA,

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOAH?

No

29. Additional comments regarding your report: