OIE Reference Laboratory Reports Activities

Activities in 2021

This report has been submitted : 2022-01-15 15:25:51

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Rift Valley fever
Address of laboratory:	Agricultural Research Council-Onderstepoort Veterinary Institute Private Bag X05 Onderstepoort 0110 SOUTH AFRICA
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Name (including Title) of Head of Laboratory (Responsible Official):	Dr Misheck Mulumba
Name (including Title and Position) of OIE Reference Expert:	Dr Baratang Alison Lubisi
Which of the following defines your laboratory? Check all that apply:	Governmental

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
3061	Yes	3039	22
Direct diagnostic tests		Nationally	Internationally
195	Yes	185	10

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?

Yes

Name of OIE Member Country seeking assistance	Date (month)	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
CONGO (DEM. REP. OF THE)	22/02/2021	1	0
SUDAN	03/05/2021	10	10

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?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	OIE Member Countries involved other than your country
Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics	3 Years	To generate scientific data on the ecological and epidemiological aspects of the disease, in order to improve the currently employed mitigation measures	Ecohealth Alliance; National Aeronautics and Space Administration (NASA); National institute for Communicable Diseases (NICD); University of Pretoria (UP);	SOUTH AFRICA UNITED STATES OF AMERICA

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:
The laboratory tested samples for diagnostic, surveillance and export certification purposes, and issued reports.

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

No

If the answer is no, please provide a brief explanation of the situation:
Research data alluded to in the last page of this report is in the process of being analysed before it can be published.

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: 0

b) International conferences: 0

c) National conferences: 0

d) Other:

(Provide website address or link to appropriate information) 1
A PhD thesis was submitted for examination during the current reporting year.

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)
ISO17025	2020-2022 SANAS certificate.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
RVF Indirect IgG ELISA	SANAS
RVF Capture IgM ELISA	SANAS
RVF Real Time RT-PCR	SANAS

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?

No

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?

Yes

Purpose of the proficiency tests: [1]	Role of your Reference Laboratory (organiser/ participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
Serological test harmonisation	Organiser and participant	Two	CIRAD in France

[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?

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
Serological test harmonisation	Three	☒Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East
Molecular test harmonisation	Two	☒Africa ☐Americas ☐Asia and Pacific ☐Europe ☐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?

No

25. Additional comments regarding your report:

i). The laboratory entered into a research and diagnostic agreement with the Veterinary Research Section, Department of Animal Resources, Ministry of Municipality& Environment- Qatar, for all diseases the ARC-OVR is OIE reference laboratory for.

ii). An inhibition ELISA to detect antibodies against Rift Valley fever virus (RVFV) in sera from infected animals was developed. The test is based on a recombinant RVFV Nucleoprotein and a recombinant single chain antibody (scFv F3) specific for this protein. These reagents are well characterised and renewable. Antibodies in animal sera can inhibit the binding of scFv F3 to the Nucleoprotein. One more step (pre-coating plates) needs to be optimised before the test can be be fully validated and availed in kit form. Sera (540) previously tested with the NICD inhibition ELISA were tested with the inhibition ELISA and the results will be compared to the previous results for final comparison and statistical analyses.