

WOAH Reference Laboratory Reports Activities 2025

This report has been submitted: 29 janvier 2026 09:56

LABORATORY INFORMATION

| | |
|---|---|
| *Name of disease (or topic) for which you are a designated WOA Reference Laboratory: | Rabies |
| *Address of laboratory: | Agricultural Research Council Onderstepoort Veterinary Institute, 100 Old Soutpan Road, P Bag X05, Onderstepoort, Pretoria, South Africa. |
| *Tel: | +27-12 5298228 |
| *E-mail address: | claudesabeta@up.ac.za |
| Website: | www.arc.agric.za |
| *Name (including Title) of Head of Laboratory (Responsible Official): | Dr Munangatire Mparamoto |
| *Name (including Title and Position) of WOA Reference Expert: | Prof Claude Sabeta |
| *Which of the following defines your laboratory? Check all that apply: | Governmental 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 WOA Manual (Yes/No) | Total number of test performed last year | |
|--|----------------------------------|--|-----------------|
| | | Nationally | Internationally |
| Indirect diagnostic tests | | | |
| Monoclonal antibody typing | Yes | 20 | 0 |
| Direct diagnostic tests | | | |
| Direct fluorescent antibody test | Yes | 444 | 14 |
| Fluorescent antibody virus neutralisation test (FAVNT) | Yes | 2024 | 254 |

TOR2: REFERENCE MATERIAL

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

No

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

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA 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 WOAHP 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 WOAHP Standards for the designated pathogen or disease?

TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

| Name of WOAHP 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 |
|---|------------|----------------------------|--|--|
| NAMIBIA | 2025-10-10 | FAT | 0 | 14 |

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

Yes

| Name of the WOAHP Member Country receiving a technical consultancy | Purpose | How the advice was provided |
|--|---|------------------------------|
| MALAWI | Trouble shooting PCR test for rabies virus. | Online meeting (09 May 2025) |

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

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

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:

All the epidemiological data for brain tissue samples analysed are submitted to the Department of Agriculture monthly.

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

Yes

If the answer is yes, please provide details of the data collected:

Rabies outbreak in seals in South Africa. The data was presented at the Rabies Advisory Group meeting and the RabLab network meeting.

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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Eze, U.U.; Mokoena, R.; Ogbu, K.I.; Dubazana, S.; Ngoepe, E.C.; Munangatire, M.; Ezeokonkwo, R.C.; Anene, B.M.; Buthlezi, S.G.; Sabeta, C.T. Proteome Profiling of Rabies-Infected and Uninfected Dog Brain Tissues, Cerebrospinal Fluids and Serum Samples. *Proteomes* 2025, 13, 66. <https://doi.org/10.3390/proteomes13040066>

b) International conferences:

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Two presentations were made at the SASVEPM conference held at White River, Mpumalanga, South Africa on - Rabies virus outbreak in marine mammals in South Africa (oral), Rabies surveillance in the Eastern Nuclei of the SADC - a systematic review (poster) and Central nervous tissues from horses with rabies are generally infected with the dog-rabies variant (poster) and a presentation was made at the American Society for Mass Spectrometry (ASMS) 2025 in Baltimore, USA (July 2025) on proteomics profiling in rabies positive and negative dogs.

c) National conferences:

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An oral presentation on "Three rabies virus variants circulating in Limpopo province: implications for rabies control", during the Limpopo Veterinary Congress 2025, at Fumani Game Lodge, 28-31 October, 2025.

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

1. 61 serum samples tested using FAVN :Can the pinnipeds seroconvert when vaccinated against rabies? How many vaccine doses are required for seroconversion and to establish plasma titers high enough for adequate protection

2. 61 Officials(9 State Veterinarians , 42Animal Health Technicians and 10 Veterinary Technologists) were trained on simple sampling methods on 28 August 2025 at Makhado Veterinary Laboratory in Makhado, South Africa.

3. Three technicians from Komani Veterinary laboratory attended a FAT bench training at ARC OVR from 30 June to 4 July and 6-10 October 2025.

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

| Quality management system adopted | Certificate scan (PDF, JPG, PNG format) | |
|-----------------------------------|---|-------------------|
| ISO17025 2017 | PDF of certificate attached. See page 1 of the attached document. | V0003-04-2025.pdf |

19. Is your quality management system accredited?

Yes

| Test for which your laboratory is accredited | Accreditation body |
|--|--------------------|
| FAT | SANAS |
| FAVN | SANAS |

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

Yes

1. Biannual rabies titre checks for personnel. 2. Pre-exposure vaccinations for new personnel. 3. Access control to the laboratory. 4. Use of correct PPE. 5. Working in a biological safety cabinet class II. 6. Separate rooms for different functions/tests. 7. Making use of standard and controlled SOPs.

TOR9: SCIENTIFIC MEETINGS

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

No

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

No

TOR10: NETWORK WITH WOAHP REFERENCE LABORATORIES

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

Yes

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

Yes

| NETWORK/DISEASE | ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC) | NO. PARTICIPANTS | PARTICIPATING WOAHP REF. LABS |
|-----------------|--|------------------|-------------------------------|
| RabLab network | Member | 14 | All rabies reference labs. |

25. Did you organise or participate in inter-laboratory proficiency tests with WOAHP 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 WOAHP Ref. Labs/ organising WOAHP Ref Lab |
|---|---|--------------------------------|---|
| Determining a laboratory's capability to conduct specific diagnostic test. | Participant | 15 | Republic of Korea, South Africa, Portugal, UK, Estonia, Morocco, APHA and Anses - participating labs from Germany, Australia, Switzerland, Azerbaijan, Brazil, Singapore, Slovenia, Denmark and Israel. |
| Inter-laboratory comparison within the Southern African development community (SADC) project funded by WOAHP. | Organiser for the FAT test. | 5 | Eswatini, Lesotho, Malawi, Mozambique and Zimbabwe |

26. Did your laboratory collaborate with other WOAHP 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 WOAHP Reference Laboratories |
|---|-------------|--|
| Determining a laboratory's capability to conduct specific diagnostic test | Participant | FAT with the Allerton Provincial Laboratory and the National Institute of Communicable Diseases (Three). |

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

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

Yes

| Purpose for inter-laboratory test comparisons ¹ | Role of your reference laboratory (organizer/participant) | No. participating laboratories | Name of the test | WOAHP Member Countries |
|---|--|--------------------------------|--|------------------------|
| Determining the laboratory's capability to conduct specific diagnostic tests. | Participant | 3 | FAT (Allerton Provincial Laboratory and the National Institute of Communicable Diseases) | SOUTH AFRICA, |

TOR12: EXPERT CONSULTANTS

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

Yes

| Kind of consultancy | Location | Subject (facultative) |
|---------------------|----------------|---|
| Ad hoc committee | Paris (France) | Chairing the official control programme for dog-mediated rabies of members, 28-30 October 2025. |

29. Additional comments regarding your report:

Yes

The laboratory participated in two WOAHP funded activities:

1. SADC training project.
2. Malawi-RSA partnership project.