

# WOAH Reference Laboratory Reports Activities 2024

This report has been submitted: 27 janvier 2025 23:45

## LABORATORY INFORMATION

<b>*Name of disease (or topic) for which you are a designated WOA Reference Laboratory:</b>	Rabies
<b>*Address of laboratory:</b>	3851 Fallowfield Road, Ottawa ON K2J 4S1
<b>*Tel:</b>	+1-343 212 03 04
<b>*E-mail address:</b>	christine.fehlner-gardiner@inspection.gc.ca
<b>Website:</b>	<a href="https://www.inspection.gc.ca/en/animal-health/terrestrial-animals/diseases/reportable/rabies/canada">https://www.inspection.gc.ca/en/animal-health/terrestrial-animals/diseases/reportable/rabies/canada</a>
<b>*Name (including Title) of Head of Laboratory (Responsible Official):</b>	Dr. Abed Harchaoui, DVM (Laboratory Network Director, Animal Health)
<b>*Name (including Title and Position) of WOA Reference Expert:</b>	Christine Fehlner-Gardiner, PhD (Director, CFIA Ottawa Animal Health Laboratory)
<b>*Which of the following defines your laboratory? Check all that apply:</b>	Governmental

## 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	
Indirect diagnostic tests		Nationally	Internationally
Direct diagnostic tests		Nationally	Internationally
Fluorescent Antibody Test	Yes	2483	0

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RT-PCR	Yes	5	0
Immunohistochemistry	Yes	2	0
Variant typing by discriminatory monoclonal antibody panel	Yes	65	0
Variant typing by sequencing and phylogenetic analysis	Yes	1	0

## TOR2: REFERENCE MATERIAL

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

No

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

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient WOA?H Member Countries	Country of recipients
polyclonal conjugate	fluorescent antibody test	produced and provided	10 mL	0	1	CANADA,
inactivated positive control	Direct rapid immunohistochemical test for rabies	produced and provided	8 cc	0	1	CANADA,
monoclonal antibody (hybridoma supernatant)	research	produced and provided	0	20 mL	1	UNITED STATES OF AMERICA,
raccoon serum samples	Research - see question 26	provided	0	200 x 0.5 mL	1	GERMANY,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA?H Members?

No

## 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 WOA?H Standards for the designated pathogen or disease?

No

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

No

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

No

## TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

Yes

Name of the WOA Member Country receiving a technical consultancy	Purpose	How the advice was provided
BRAZIL	At the request of Laboratório Federal de Defesa Agropecuária (LFDA-MG), provided advice on: alternatives to the mouse inoculation test for confirmatory diagnosis of rabies; what is considered an inconclusive result in the fluorescent antibody test; and test scenarios that could be used when the FAT is inconclusive. At the request of LFDA/PE - Federal Agricultural Laboratory in Pernambuco, developed a Materials Transfer Agreement for provision of diagnostic conjugates to allow this laboratory to evaluate the use of the direct, rapid immunohistochemical test for rabies (DRIT). Conjugates will be provided in 2025.	email correspondence
PERU	At the request of Unidad del Centro de Diagnóstico de Sanidad Animal, SENASA, provided advice on use of, and experience with, commercially available conjugates for the fluorescent antibody test.	email correspondence
COLOMBIA	At the request of Laboratorio Nacional de Diagnostico Veterinario provided new information on a commercially available FAT conjugate.	email correspondence

## TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

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

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:

Rabies case and testing data for Canada

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:

Data are published on a monthly basis on the Canadian Food Inspection Agency website. Data are also disseminated by reporting to the Canadian Network for Public Health Intelligence (CNPHI) rabies module, WAHIS (data provided to Canada Focal Point for Reporting), and SIRVERA (Pan American Health Organization Rabies database), and through conference presentations, scientific publications and discussions at reference lab network meetings.

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:

3

McAlpine DF, Vanderwolf KJ, Fehlner-Gardiner C, McBurney S, Washinger D. 2024. Continuing increase in the abundance of the Big Brown Bat (*Eptesicus fuscus*) in Maritime Canada in the presence of White-nose Syndrome. *Journal of Bat Research and Conservation*. 12(1):41-49. DOI: 10.14709/BarbJ.17.1.2024.04

Fehlner-Gardiner C, Gongal G, Tenzin T, Sabeta C, De Benedictis P, Rocha SM, Vargas A, Cediell-Becerra N, Gomez LC, Maki J, Rupprecht CE. 2024. Rabies in Cats-An Emerging Public Health Issue." *Viruses*. 16(10) 1635. 19 Oct. 2024, doi:10.3390/v16101635

Ma X, Boutelle C, Bonaparte S, Orciari LA, Condori RE, Kirby JD, Chipman RB, Fehlner-Gardiner C, Thang C, Cedillo VG, Aréchiga-Ceballos N, Nakazawa Y, Wallace RM. 2024 "Rabies surveillance in the United States during 2022." *Journal of the American Veterinary Medical Association* vol. 262,11 1518-1525. 26 Jul. 2024, doi:10.2460/javma.24.05.0354 (Note - this is an annual publication led by the WOA Reference Laboratory in USA with contributions from both the Canadian and Mexican Reference Laboratories)

b) International conferences:

1

Thang C, Snodgrass M, Iqbal Z, Fehlner-Gardiner C. 2024. Rabies in Canada – 2023. 35th International Conference on Rabies in the Americas. Buenos Aires, Argentina. November 3-7, 2024.

Julien D, Thang C. 2024. Bridging the Divide: Canada's Integrated Interagency Approach to Rabies Management. 35th International

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Conference on Rabies in the Americas. Buenos Aires, Argentina. November 3-7, 2024.

c) National conferences:

1

Thang C. 2024. A brief overview of Rabies in Canada from 2019-2023. Canadian Animal Health Institute World Rabies Day Webinar. September 27, 2024.

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

3

CFIA website: <https://inspection.canada.ca/en/animal-health/terrestrial-animals/diseases/reportable/rabies/canada>

SIRVERA portal: <https://sirvera.panaftosa.org.br/Site/Inicio/Index?idl=3>

CNPHI portal: <https://www.cnphi-rcrsp.ca/cnphi/index.jsp>

## TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOA 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)	
ISO/IEC 17025:2017	ASB_CTF_15367-CFIA-Certificate_v2_2022-08-29.pdf	

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Fluorescent Antibody Test	Standards Council of Canada

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

Yes

The Ottawa Laboratory Fallowfield, Canadian Food Inspection Agency, has a dedicated Biosafety Officer who manages the biosafety, biocontainment, biosecurity, and health and safety portfolios for the laboratory. The OLF holds valid Human Pathogens and Toxins Act (HPTA) licences, administered by the Public Health Agency of Canada, for all of the facilities where work with regulated materials is performed. As a condition of the licences, OLF must ensure compliance with the Canadian Biosafety Standard, which details the physical

and operational requirements for Containment Level 2 and 3 laboratories, including Prion facilities. As well, many of the activities at OLF are further regulated by the CFIA's Office of Biohazard Containment and Safety. In order to demonstrate compliance to both these regulatory bodies, the Biosafety Officer regularly submits performance and verification testing results for the recertification of the containment facilities, and participates in on-site inspections by the federal biosafety regulators.

## TOR9: SCIENTIFIC MEETINGS

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

No

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

No

## TOR10: NETWORK WITH WOA?H REFERENCE LABORATORIES

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

Yes

24. Do you network (collaborate or share information) with other WOA?H Reference Laboratories designated for the same pathogen?

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOA?H REF. LABS
RABLAB/Rabies	Participant	14	Chinese Taipei, France, Germany, India, Israel, Italy, Korea (Rep. of), Mexico, People's Republic of China, Romania, South Africa, UK, USA

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

No

*nil*

26. Did your laboratory collaborate with other WOA?H 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 WOA?H Reference Laboratories
FLI-OMNRF-CEVA collaboration for evaluation of ONRAB oral vaccine for rabies in wildlife	Further study of the ONRAB oral vaccine and development of assays for regulatory use	Friedrich Loeffler Institut (WOA?H Reference Laboratory for Rabies); other collaborators - Ontario (Canada) Ministry of Natural Resources and Forestry, CEVA Animal Health (Germany and Canada)

## TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

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

Yes

Purpose for inter-laboratory test comparisons <sup>1</sup>	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Competency assessment of laboratory staff - interlaboratory comparison with CFIA Lethbridge Laboratory (fluorescent antibody test)	Organizer	2	Fluorescent Antibody Test	CANADA,
Proficiency testing of laboratory staff - Wisconsin State Laboratory of Hygiene proficiency panels for rabies fluorescent antibody test	Participant - number of participating labs in unknown	0	Fluorescent Antibody Test	CANADA, UNITED STATES OF AMERICA,

## TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
Participation in RABLAB network meetings	Virtual meetings	Various topics, including: member lab summaries, lateral flow devices, oral vaccination for dogs, proficiency testing, risk mapping, country support

29. Additional comments regarding your report:

No