

# WOAH Reference Laboratory Reports Activities 2023

## Activities in 2023

This report has been submitted : 10 juin 2024 07:27

### Laboratory Information

<b>Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:</b>	Classical swine fever
<b>Address of laboratory:</b>	1015, Arlington Street, Winnipeg, MB R3E 3M4, Canada
<b>Tel.:</b>	204-789-2013
<b>E-mail address:</b>	aruna.ambagala@inspection.gc.ca
<b>Website:</b>	<a href="https://inspection.canada.ca/science-and-research/our-laboratories/ncfad-winnipeg/eng/1549576575939/1549576643836">https://inspection.canada.ca/science-and-research/our-laboratories/ncfad-winnipeg/eng/1549576575939/1549576643836</a>
<b>Name (including Title) of Head of Laboratory (Responsible Official):</b>	Kathleen Hooper-Mcgrevy
<b>Name (including Title and Position) of WOAH Reference Expert:</b>	Aruna Ambagala - Research Scientist
<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 WOAH Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
<b>Indirect diagnostic tests</b>			
ELISA		5471	0
NPLA		34	0
<b>Direct diagnostic tests</b>			
RRT-PCR		493	24
Whole Genome Sequencing		0	16
Virus Isolation		0	24
Conventional PCR and Sanger Sequencing		0	24

### 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 WOHM Members?

No

### TOR3: NEW PROCEDURES

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

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
Oral Fluids for the Early Detection of Classical Swine Fever in Commercial Level Pig Pens	Robert E, Goonewardene K, El Kanoa I, Hochman O, Nfon C, Ambagala A. Oral Fluids for the Early Detection of Classical Swine Fever in Commercial Level Pig Pens. Viruses. 2024 Feb 20;16(3):318.

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

No

### TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

NAME OF WOHM 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
BRAZIL	2023-01-02	RRT-PCR, Virus Isolation, Sequencing	24	24

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

Yes

NAME OF THE WOHM MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
BRAZIL	Information on whole genome sequences of the outbreak samples	emails and virtual meetings
ECUADOR	Information on virus isolation and whole genome sequencing	Email and virtual meetings

### TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOHM MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Molecular and Pathological Characterization of Classical Swine Fever Virus from Colombia	3 years	To characterize CSFV genotype 2 strains Responsible for the 2013-2018 Outbreak in Colombia	National Veterinary Laboratory, Instituto Colombiano Agropecuario, Bogota 110911, DC, Colombia.	COLOMBIA
Molecular characterization of classical swine fever virus isolates from Ecuador: The path to eradication	1 year	To conduct detailed molecular epidemiological study to understand the evolution of CSFV over the last four years in Ecuador	Agencia de Regulación y Control Fito y Zoonosanitario - Agrocalidad Eloy Alfaro y Federico González Suárez. Av. Interoceánica Km. 14 1/2, Sector La Granja, CP: 170903, 170184, Quito, Ecuador	ECUADOR

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

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:

CSFV sequence and the metadata related to the samples collected from Colombia

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:

The data was published in a peer-reviewed journal and the sequence data was uploaded to GenBank

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:

1

Robert E, Goonewardene K, Lamboo L, Perez O, Goolia M, Lewis C, Erdelyan CNG, Lung O, Handel K, Moffat E, Embury-Hyatt C, Amaya NN, Parra CPC, Rueda DCG, Monroy MAR, Clavijo A, Ambagala A. *Molecular and Pathological Characterization of Classical Swine Fever Virus Genotype 2 Strains Responsible for the 2013-2018 Outbreak in Colombia. Viruses. 2023 Nov 24;15(12):2308.*

b) International conferences:

0

c) National conferences:

3

*Evaluation of Oral Fluids as an Aggregate Sample Type for Early Detection of ASF & CSF. Oral Presentation by Kalhari Goonewardene. CFIA Research Conference, November 28, 2023.*

*Superficial Inguinal Lymph Nodes for Screening Dead Pigs for African and Classical Swine Fever. Oral Presentation by Aruna Ambagala. CFIA Research Conference, November 28, 2023.*

*Molecular and Pathological Characterization of Classical Swine Fever Virus genotype 2 strains responsible for 2013-2018 outbreak in Colombia. Poster presented by Erin Robert at the Manitoba Student Health Research Forum (MSHRF). June 12, 2023.*

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

1

*CSF Twinning Project with Guatemala: Enhancing Diagnostic Capacity for Classical Swine Fever in Central and South America. Oral presentation by Aruna Ambagala at the Meeting with WOA?H Delegate for Canada. January 26, 2023*

## TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOA?H 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	Please see attached	ASB_CTF_15579-CFIA-Certificate_v1_2021-04-27.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
RRT-PCR	Standards Council of Canada
Conventional PCR	Standards Council of Canada
Sequencing	Standards Council of Canada
Virus Isolation	Standards Council of Canada
NPLA	Standards Council of Canada
ELISA	Standards Council of Canada

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

Yes

The Government of Canada's Canadian Biosafety Standard (CBS) requires that a biosecurity plan be in place for facilities that handle infectious agents. This plan details the aspects the facility has in place for the prevention of theft, misuse or intentional release of pathogens. The National Centre for Foreign Animal Disease (NCFAD) Biosecurity Plan addresses the requirements that are outlined in Section 4.1.8 of the CBS 3rd Edition, and security requirements detailed in Public Health Agency Canada (PHAC)'s Physical Security Standard for the NCFAD at the Canadian Science Centre for Human and Animal Health (CSCAH). The NCFAD Biosecurity Plan deals with all biological pathogens, including Risk Group 2, but its focus is on those in Risk Groups 3 and 4, which pose the greatest biosecurity risk. This plan includes details on the risk assessment of biological agents, physical protection of the facility, personnel suitability/reliability, information management, pathogen accountability and inventory, and incident and emergency response measures. Work areas covered include diagnostic and research laboratory spaces in Containment Level 3 (CL3), a large animal CL3-Ag zone including post mortem suite, and higher containment laboratories, namely restricted zoonotic CL3 and CL4 labs. CL4 space includes a CL4 large animal zone. The NCFAD Biosecurity Plan will be reviewed biennially by the Director and/or Laboratory Executive Director (LED). Ad hoc review will take place in response to incident review outcomes and related document updates such as the Biosecurity Risk Assessment or Threat Risk Assessment.

## 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
CSF	Participant	9	National Veterinary Research Institute, Pulawy, Poland IRTA - CRESA, Barcelona, Spain Animal & Plant Health Agency, Weybridge, Surrey, UK Veterinary Research Institute, New Taipei City, Taiwan Stiftung Tierärztliche Hochschule, Hannover, Germany CSIRO Australian Centre for Disease Preparedness, Geelong, AUSTRALIA China Institute of Veterinary Drug Control

(IVDC), Beijing, CHINA National Institute of Animal Health, Tokyo, JAPAN

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

No

26. Did your laboratory collaborate with other WOA Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

No

### TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

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

No

### TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Review	Through Emails and virtual meetings	WOAH Terrestrial Manual: chapter on classical swine fever

29. Additional comments regarding your report:

Yes

*In 2023, NCFAD was not able to obtain an inter-laboratory proficiency panel for CSF*

*In 2023, NCFAD did not receive requests from other WOA member countries for reference reagents or proficiency panels. In 2024, NCFAD is organizing CSF and ASF proficiency testing exercise with 12 WOA member countries in the Americas*