OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-01-05 10:20:23

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Swine influenza
Address of laboratory:	Via Bianchi 9 25124 Brescia ITALY
Tel.:	+39 (0)52129.37.33
Fax:	
E-mail address:	chiara.chiapponi@izsler.it
Website:	www.izsler.it
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Piero Frazzi
Name (including Title and Position) of OIE Reference Expert:	Dr. Chiara Chiapponi
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
Hemoagglutination inhibition test	yes	16454	2989
Direct diagnostic tests		Nationally	Internationally
Real-time PCR M gene	yes	2458	18
Egg isolation	yes	77	0
Cell culture isolation	yes	201	0
PCR for IAV-S subtyping	yes	195	2
Full genome sequencing of IAV RNA	no	105	115

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?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient OIE Member Countries	Region of recipients
SWINE INFLUENZA ANTIGEN H1N2	HI TEST	PRODUCED/PROVIDE	1 ml	1 ml	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
SWINE INFLUENZA ANTIGEN H1N1	HI TEST	PRODUCED/PROVIDE	1 ml	NONE	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
SWINE INFLUENZA ANTIGEN H3N2	HI TEST	PRODUCED/PROVIDE	1 ml	NONE	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
HYPERIMMUNE SERUM H1N2	HI TEST	PROVIDE	1 ml	1 ml	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
HYPERIMMUNE SERUM H1N1	HI TEST	PROVIDE	1 ml	NONE	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East

HYPERIMMUNE SERUM H3N2	HI TEST	PROVIDE	1 ml	NONE	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East

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
GREECE	JANUARY	125	0
GREECE	FEBRUARY	79	0
GREECE	MAY	178	0
GREECE	JUNE	125	0
GREECE	JULY	77	0
GREECE	AUGUST	34	0
GREECE	SEPTEMBER	185	0
GREECE	OCTOBER	93	0
GREECE	DECEMBER	81	0
CYPRUS	JUNE	68	0

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
SPAIN	Viral RNA amplification to obtain NGS sequencing libraries	mail
BELGIUM	To suggest an Italian s-IAV strain for HI tests	mail-shipping of strain and serum
ITALY	HI tests	mail-exchange of viruses and sera

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
International swine Influenza Network	annual	European Network on swine Influenza Supported by CEVA	FLI, Riems, Germany; DTU, Copenhagen, Denmark; UAB, Barcelona, Spain; ANSES, Ploufragan, France; IZSVe, Padua, Italy; IZSLER, Brescia, Italy; APHA, Weybridge, UK; Warsaw University, Warsaw, Poland; CEVA, Libourne, France	DENMARK FRANCE GERMANY POLAND SPAIN UNITED KINGDOM
Swine Influenza Viruses OFFLU	annual	Exchange scientific data about European swine influenza viruses within the network	OFFLU partners	
Swine influenza data for OFFLU contribution to WHO vaccine composition meeting	annual	To share animal influenza data with WHO in order to assist with selection of the most appropriate viruses for human vaccines, which can include animal viruses that present a potential to emerge into pandemic threats.	OFFLU partners	

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:
Viral strains are isolated for genetic and antigenic characterization. Origin and date of sampling are collected.

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

Yes

If the answer is yes, please provide details of the data collected:
Sequencing data, origin and date of sampling (OFFLU-VCM)

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: 1
Acta Veterinaria-Beograd 2020, 70 (1), 110-125 UDK: 636.4.09:[616.98:578.832(497.11)"2016/2018" DOI: 10.2478/acve-2020-0008

b) International conferences: 0

c) National conferences: 0

d) Other:
(Provide website address or link to appropriate information) 2
Data from swine influenza surveillance in Italy were provided as contribution to the 2020 meeting of the OFFLU SIV technical group.
Genetic data and virus strains were provided as contribution to WHO vaccine composition meeting.
https://www.who.int/influenza/vaccines/virus/202009_zoonotic_vaccinevirusupdate.pdf?ua=1

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?

Yes

a) Technical visits: 1
b) Seminars: 0
c) Hands-on training courses: 0
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
a	Switzerland	1

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)
EN ISO/IEC 17025:2018	cert_accreditamento_2020.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Matrix (M) gene PCR	ILAC-MRA_Accredia

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.
Detection of influenza A virus by molecular test	participant	18	OIE Reference laboratory for avian Influenza Padua Italy

[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?

Yes

Title of the project or contract	Scope	Name(s) of relevant OIE Reference Laboratories
Understanding the dynamics and evolution of swine influenza viruses in Europe: relevance for improved intervention and sustainable pig production-PIGIE (ICRAD)	ICRAD Research Area 1: Improved understanding of epidemic and emerging infectious animal diseases	Animal and Plant Health Agency (APHA)

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?

No

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

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:

It was not possible to disseminate data to National and International conferences due to COVID-19 emergency.