OIE Reference Laboratory Reports Activities

Activities in 2019

This report has been submitted : 2020-01-07 11:08:37

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
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Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Piero Frazzi
Name (including Title and Position) of OIE Reference Expert:	tbd Dr. Chiapponi Chiara Biologist
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
Heamoagglutination inhibition test	yes	11432	1948
Direct diagnostic tests		Nationally	Internationally
Real-time PCR M gene	yes	1990	
Egg isolation	yes	125	
Cell culture isolation	yes	230	
PCR for IAV-S subtyping	yes	159	
Full genome sequencing of IAV viral RNA	no	144	60

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	NONE	NONE	N/A	☐Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East
SWINE INFLUENZA ANTIGEN H1N1	HI TEST	produced/provided	55 ml	NONE	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
SWINE INFLUENZA ANTIGEN H1N1PDM	HI TEST	produced	NONE	NONE	N/A	☐Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East
SWINE INFLUENZA ANTIGEN H3N2	HI TEST	produced	NONE	4 ml	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
						☐Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East
Hyperimmune serum H1N1	haemoagglutination inhibition test	produced	NONE	NONE	N/A	☐Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East

Hyperimmune serum H3N2	haemoagglutination inhibition test	produced	NONE	NONE	N/A	☐Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East
Hyperimmune serum H1N2	haemoagglutination inhibition test	produced	NONE	NONE	N/A	☐Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East
Hyperimmune serum H1N1pdm	haemoagglutination inhibition test	produced	NONE	NONE	N/A	☐Africa ☐Americas ☐Asia and Pacific ☐Europe ☐Middle East
RNA virus A/swine/Italy/115269/2019 H3N2	PCR	produced and provided	0.05 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
CYPRUS	July	29	0
CYPRUS	August	30	
GREECE	January	31	
GREECE	February	115	
GREECE	April	77	
GREECE	May	35	
GREECE	July	83	
GREECE	September	127	
GREECE	October	49	
SPAIN	July	6	
SPAIN	October	37	
SPAIN	November	58	

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	To obtain full genome sequences of swine influenza viruses	Protocol sent by email
SERBIA	To analyze genetic data	paper

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	Supported by IDT, Germany	FLI, Riems, Germany; DTU, Copenhagen, Denmark; CReSA, Barcelona, Spain; ANSES, Ploufragan, France; IZSVe, Padua, Italy; IZSLER, Brescia, Italy; APHA, Weybridge, UK; IDT, Dessau, Germany; Warsaw University, Warsaw, Poland	DENMARK FRANCE GERMANY POLAND SPAIN UNITED KINGDOM
Risk assessment for influenza D in Europe	2018-2019	The objective is to develop an integrated approach to assess the emergence threat associated with influenza D viruses' circulation in Europe. By promoting transfer and exchange of knowledge and expertise between the partners we will pave the way towards scientific based decision-making and development of effective strategies for diagnosis and disease control	INRA,Utrecht University, Faculty of Veterinary Medicine Université de Liège : Luxembourg Institute of Health National Veterinary Institute, IZSLER, Italy	FRANCE LUXEMBOURG SWEDEN THE NETHERLANDS
Swine Influenza Viruses OFFLU	2019	Exchange scientific data about animal influenza viruses within the network	ANSES (France), APHA (United Kingdom), DTU (Denmark), IZSLER (Italy), NVRI (Poland/Slovakia)UGhent (Belgium/Netherlands),IZSVE (Italy), UAB (Spain) and SVA (Sweden)	BELGIUM DENMARK FRANCE GERMANY POLAND SPAIN SWEDEN UNITED KINGDOM

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:

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:

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
1. Mauro Delogu , Claudia Cotti , Gabriele Vaccari , Elisabetta Raffini , Matteo Frasnelli , Sandro Nicoloso , Vanessa Biacchessi , Arianna Boni , Emanuela Foni , Maria R Castrucci , Maria A De Marco. Serologic and Virologic Evidence of Influenza A Viruses in Wild Boars (Sus Scrofa) From Two Different Locations in Italy-J Wild Dis 55 (1), 158-163. Jan 2019

b) International conferences: 2
1.Ian H. Brown, Pauline M. van Diemen, Alexander Byrne, Andrew Ramsay, Samantha Watson, Alejandro Nunez, Ana Moreno, Chiara Chiapponi, Emanuela Foni, Sharon M. Brookes and Helen E. Everett. Assessment of zoonotic transmission of swine influenza A viruses from pigs to naïve or vaccinated ferrets. Options for the control Of Influenza X.
2. Moreno Ana, Baioni Laura, Davide Lelli, Foni Emanuela, Prosperi Alice, Merenda Marianna, Faccini Silvia, Luppi Andrea, Alborali Giovanni, Salogni Cristian, Lavazza Antonio, Chiapponi Chiara. Reassortment patterns in pigs involving swine influenza A and 2009 Pandemic H1N1 viruses. 11th International Global Virus Network Meeting. Barcelona-Spain.2019

c) National conferences: 3
1.A. Prosperi, S. Faccini, M. Merenda, A. Amorico, A. Moreno, C. Rosignoli, E. Pariani, C. Galli, P. Affanni, M.E. Colucci, E. Foni, A. Luppi, C. Chiapponi: SURVEILLANCE AMONG ORTHOMYXOVIRUSES (IAV, IBV, ICV, IDV) IN ITALY (2014-2018). 3RD National Congress of the Italian Society for Virology – One Virology One Health, Padova, 10-12 Settembre 2019

2.Prosperi A., Faccini S., Merenda M., Zanni I., Baioni L., Gabbi V., Amorico A., Moreno Martin A.M., Rosignoli C., Pariani E., Galli C., Affanni P., Colucci M.E., Foni E., Luppi A., Chiapponi C.: SURVEILLANCE AMONG ORTHOMYXOVIRUSES (IAV, IBV, ICV, IDV): A DIAGNOSTIC APPROACH. XIX Congresso Nazionale S.I.Di.L.V. Matera, 23-25 Ottobre 2019.

3. Chiapponi C., Faccini S., Moreno A., Alborali G.L., Merenda M., Prosperi A., Luppi A., Amorico A., Baioni L., Zanni I., Manfredi R., Foni E. STUDIO SULLA CIRCOLAZIONE DI VIRUS INFLUENZALE TIPO A, B, C E D NEGLI ALLEVAMENTI SUINI NEL NORD ITALIA. CARATTERIZZAZIONE DEI VIRUS CIRCOLANTI NEGLI ANNI 2016-2018. SIPAS.

d) Other:
(Provide website address or link to appropriate information) 1
Data from swine influenza surveillance in Italy were provided as contribution to the 2019 OFFLU meeting.
http://www.offlu.net/fileadmin/home/en/meeting-reports/pdf/SIV_2019/Meeting_summary_final.pdf

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: 4
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	Italy	1
a	Sweden	2
a	Spain	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 17025:2005	Accredia_Cert_2019.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
Next-generation Sequencing for genetic characterization of swine influenza viruses in Europe	The overall aim of the project is to validate the methods used for genetic characterisation of swine influenza A viruses (swIAV) in European pigs by next-generation sequencing (NGS)	Animal and Plant Health Agency New Haw, Addlestone Surrey KT15 3NB Weybridge UNITED KINGDOM

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: