

OIE Reference Laboratory Reports Activities

Activities in 2013

This report has been submitted : 2014-01-31 11:39:35

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Swine influenza
Address of laboratory:	Istituto Zooprofilattico Sperimentale della Lombardia ed Emilia Romagna " B. Ubertini"(IZSLER) Sezione di Parma Via dei Mercati 13A 43126 Parma Italy
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Name (including Title) of Head of Laboratory (Responsible Official):	Professor Stefano Cinotti
Name (including Title and Position) of OIE Reference Expert:	Emanuela Foni DVM Veterinary Manager
Which of the following defines your laboratory? Check all that apply:	Governmental

ToR: 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	
		Nationally	Internationally
Indirect diagnostic tests		Nationally	Internationally
Haemoagglutination Inhibition Test (H1N1,H1N2,H3N2,H1N1pdm)	Yes	18524	535
Direct diagnostic tests		Nationally	Internationally
Virus Isolation on Cell Culture (MDCK, CaCo2)	Yes	450	0
Virus isolation on eggs	Yes	311	0
Real time RT-PCR	No	1032	5

**ToR: 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
SwineInfluenza virus: H1N1 A/sw/It/267505/2010 Virus H1N2 A/sw/It/284922/2009 Virus H3N2 A/sw/It/312583/2009	HI serological test	Produced	1ml/each virus		2	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Swine Influenza Virus A/sw/Italy/50175/07 virus	Experimental infection tests	produced		1 ml		<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Swine Influenza Virus A/sw/It/141/1981 e H1N1 A/sw/ It/437/1976	Tests on MDCK cells	produced	1ml/each virus		1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Swine Influenza Virus A/swine/Italy/28762-3/2013 H1N1 2. A/swine/Italy/16235/2013 H1N2 3. A/swine/Italy/19841-1/2013 H1N1 4. A/swine/Italy/6352-17/2013 H1N1pdm 5. A/swine/Italy/311316/2012 H1N2 6. A/swine/Italy/224790/2012 H1N1 7. A/swine/Italy/218884-4/2012 H1N1 8. A/swine/Italy/224721-3/2012 H1N2 9. A/swine/Italy/233405/2012 H1N1 (FULL SEQUENCES UPLOADED) 10. A/swine/Italy/154140-1/2012 H1N1 11. A/swine/Italy/303612/2011 H1N1 12. A/swine/Italy/7821/2011 H1N1 13. A/swine/Italy/317906-1/2011 H1N1 14. A/swine/Italy/315079-2/2011 H3N2 15. A/swine/Italy/245982/2011 H3N2 16. A/swine/Italy/229537/2011 H1N2 17. A/swine/Italy/171855-1/2011 H3N2 18. A/swine/Italy/303682/2011 H1N2 19. A/swine/Italy/303707/2011 H1N2 20. A/swine/Italy/126216-1/2012 H1N2	Antigenic and genetic tests	Produced		20 ml totally		<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR: 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: 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
MALTA	February	2	
MALTA	October	1	
MALTA	November	1	
ROMANIA	August	18	
HUNGARY	February	60	
HUNGARY	March	1	
HUNGARY	April	92	
HUNGARY	August	140	
HUNGARY	September	150	
HUNGARY	December	75	

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
NIGERIA	Diagnostic tests to use for direct and indirect diagnosis of SIV infection	e-mail
SOUTH AFRICA	Diagnostic test to conduct a surveillance activity on SIV	e-mail
INDIA	Assistance in collecting updated information in epidemiology and diagnostic tools in SIV	e-mail

ToR: 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)
European Surveillance Network for influenza in Pigs	36 months	Epidemiology and evolution of swine Influenza Virus in European pig population	VLA, UGhent, AFSSA, IZSLER, DTU, NVI, LCV, IDT Biologika , Evisa, KVI, CVI, CDC, Faculty of Veterinary Medicine Karditsa, Sanger Institute University of Cambridge University of Oxford, Friedrich-Loeffle-Institut, IZSve, St Judes Research Hospital, USDA-ARS, Harbin Veterinary Institute
Evaluation of equine and canine influenza virus infection in swine(within NADIR Projects)	12 months	Evaluate whether influenza viruses from equine and canine origin are able to infect and replicate in swine and produce disease in these animals.	IZSLER, UMDNJ, INIA, CreSA

ToR: 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

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

Yes

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: 3

-Kyriakis C.S., Rose N., Foni E., Maldonado J., Loeffen W.L.A., Madec F., Simon G, Van Reeth K.,* Influenza A virus infection dynamics in swine farms in Belgium, France,

Italy and Spain, 2006–2008 Veterinary Microbiology 162 (2013) 543-550

- Foni E., Garbarino C., Chiapponi C, Baioni L., Zanni I., Cordioli . Epidemiological survey of swine influenza A virus in the wild boar population of two Italian provinces. Influenza and Other Respiratory Viruses 7(Suppl.4), 16-20.

- Chiapponi C., Baioni L., Luppi A., Moreno A.,Castellan A. and Foni E. Full-Genome Sequence of a Reassortant H1N1 Swine Influenza Virus Isolated from Pigs in Italy

Genome Announc. 2013 Sep-Oct; 1(5): e00778-13. Published online 2013 October 3. doi:

10.1128/genomeA.00778-13

b) International conferences: 3

-Castellan A, Foni E., Luppi A., Leotti G., Vila T. Clinical case report of pandemic H1N1 in Italy. Proceedings of 6th Asian Pig Veterinary Society Congress, Ho Chi Minh City, Vietnam, 23rd Sep - 25th Sep, 2013.

- Simon G., Reid S., Larsen L.E., Kellam P., Kaartinen L., van Reeth K., Markowska-Daniel I., Foni E., Dan A., Loeffen W. European surveillance network for influenza in pigs 3 (ESNIP 3) - Expanding our knowledge of the epidemiology and evolution of swine influenza viruses. Proceedings of the 4th International Meeting on Emerging Diseases and Surveillance (IMED), Vienna, Austria, 15-18 February 2013. pp.135-136.

- Moreno A., Vaccari G., Chiapponi C., Lelli D., Sozzi E., Foni E., Boni A., Zaccaria G., Cordioli P. PB1-F2 protein and N66S mutation in swine influenza viruses. 7th Annual Meeting EPIZONE. Brussels 1-4 October 2013

c) National conferences: 1

-Foni E., Garbarino C, Chiapponi C, Cordioli P , Baioni L., Zanni I. Indagine sulla circolazione del virus influenza a nella popolazione di cinghiali delle provincie di Parma e Piacenza. Atti XXXIX Meeting Annuale SIPAS, Piacenza 14-16 Marzo 2013 175-185.

d) Other:

(Provide website address or link to appropriate information) 0

ToR: 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?

No

ToR: 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 certified according to an International Standard?

Yes

Quality management system adopted
ISO17025

16. Is your laboratory accredited by an international accreditation body?

Yes

Test for which your laboratory is accredited	Accreditation body
Real Time RT PCR in accreditation	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 2012, Chapter 1.1.3* or *Manual of Diagnostic Tests for Aquatic Animals 2012, Chapter 1.1.1*)

ToR: 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: 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.
Validation of Real Time RT PCR diagnostic test	partecipant		APHIS USDA National Veterinary Laboratories Services

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
European Surveillance Network for influenza in Pigs	Epidemiology and evolution of swine Influenza Virus in European pig population	Ian Brown Veterinary Laboratory Agency

ToR: 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?

Yes

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

Purpose for inter-laboratory test comparisons ¹	No. participating laboratories	Region(s) of participating OIE Member Countries
Resolving interlaboratory differences Harmonising existing test methods(Multiplex PCR for SIV Subtype identification)	5	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

ToR: 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: