

OIE Reference Laboratory Reports Activities

Activities in 2014

This report has been submitted : 2015-01-12 10:32:19

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Swine influenza
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Name (including Title) of Head of Laboratory (Responsible Official):	Prof Stefano Cinotti
Name (including Title and Position) of OIE Reference Expert:	Dr. Emanuela Foni DVM Veterinary Manager
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	
		Nationally	Internationally
Indirect diagnostic tests		Nationally	Internationally
Haemagglutination inhibition test	yes	11496	1156
Direct diagnostic tests		Nationally	Internationally
PCR	yes	1295	16
Egg inoculation	yes	271	0
Cell Culture inoculation	yes	427	0

**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
Virus A/sw/It/437/76(H1N1)aSW/It/141/81 H1N1	To BIOBANK of Veterinary Resources OIE Collaboratin Centre	produced	2 ml/ each virus		1	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Virus:H1N1 A/sw/It/311368/2013 H3N2: A/sw/It/311349/2013 H1N2: A/sw/It/284922/2009	Haemoagglutination Inhibition test	produced	10ml /each virus		1	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Sera:H1N1: A/sw/It/311368/2013 H3N2: A/sw/It/311349/2013 H1N2: A/sw/It/284922/2009 a	Haemoagglutination Inhibition test	produced	20ml/each serum		1	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Virus H1N1 A/sw/It/ 327666/2013	To BIOBANK of Veterinary Resources OIE Collaborating Centre	produced	22ml			<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Virus H1N2 A/sw/It/346150/2013	to BIOBANK of Veterinary Resources OIE Collaborating Centre	produced	22ml			<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

Virus H3N2 A/sw/It/282811/2013	to BIOBANK of Veterinary Resources OIE Collaborating Centre	produced	22ml			<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
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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
SPAIN	January	14	
SPAIN	April	100	
BULGARIA	November	70	
ROMANIA	October	60	
UKRAINE	January	58	
HUNGARY	January	12	
HUNGARY	April	45	
HUNGARY	June	101	
HUNGARY	December	86	
RUSSIA	May	5	

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
FRANCE	Screening tests to characterize a pig herd free from Flu	E-mail
ITALY	Real Time PCR for gene M Influenza A virus	E-mail
ITALY	Sequences and phylogenetic analysis of H3N2 Swine influenza virus isolated from human	in loco

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)
CoVetLab:Development and validation of molecular tools for sub-typing swine influenza viruses	one year, now extended to May 2015	Development and validation of improved real-time reverse transcription polymerase chain reaction (RRT-PCR) assays for differentiation of swine influenza virus (SIV) sub-types H1N1, H1N2 and H3N2 in European pigs and the variant North American H3N2 sub-type.	DTU (Denmark), ANSES (France), CVI-Lelystad (The Netherlands), SVA (Sweden) and AHVLA (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

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

-De Marco MA, Valentini A, Foni E, Savarese MC, Cotti C, Chiapponi C, Raffini E, Donatelli I, Delogu M. Is there a relation between genetic or social groups of mallard ducks and the circulation of low pathogenic avian influenza viruses? *Veterinary Microbiology* 170 (2014) 418-424. doi: 10.1016/j.vetmic.2014.03.001

-Chiapponi C., Baioni L., Luppi A., Moreno A., Castellan A. and Foni E. Temporal insight into the natural generation of a new reassortant porcine influenza virus in a swine holding. *Vet. Microbiol.* (2014), <http://dx.doi.org/10.1016/j.vetmic.2014.08.026>

- Simon G., Larsen L.E., Dürrwald R., Foni E., Harder T., Van Reeth K., Markowska-Daniel I., Reid S.M., Dan A., Maldonado J., Huovilainen A., Billinis C., Davidson I., Agüero M., Vila T., Hervé S., Breum S.Ø., Chiapponi C., Urbaniak K., Kyriakis C.S., ESNIP3 consortium, Brown I.H., Loeffen W. (2014) European surveillance network for influenza in pigs: surveillance programs, diagnostic tools and swine influenza virus subtypes identified in 14 European countries from 2010 to 2013. *PLoS One*, 9(12):e115815. doi:10.1371/journal.pone.0115815.

b) International conferences: 5

-Foni E., Chiapponi C., Moreno A., Baioni L., Luppi A., Faccini S. Swine influenza virus surveillance in Italian pig farms: 2011-2013 Proceedings of 6th European Symposium of Porcine Health Management Sorrento Italy 7-9 May 2014, 176.

-Arioli E., Caleffi A., Leotti G., Ostanello F., Foni E., Vila T., Joisel F. Booster effect of swine influenza virus infection on serological response to gripovac®3 vaccine in an Italian fattening unit Proceedings of 6th European Symposium of Porcine Health Management Sorrento Italy 7-9 May 2014, 173.

-Leotti G., Foni E., Arioli E., Bongiovanni E., Bresaola M., Codato A., Donna R., Faccenda M., Fruttero F., Gamba F., Giorgiutti M., Salvini F., Zizioli B., Ostanello F., Merdy O., Vila T. and Joisel F. Serological responses in 11 Italian herds after vaccination with a combined vaccine against H1N1, H3N2 and H1N2 Swine Influenza virus. Proceedings of the 23rd International Pig Veterinary Society

(IPVS) Congress June 8-11, 2014, Cancun , Mexico, 318.

- Chiapponi C., Moreno A., Baioni L., Luppi A., Faccini S. and Foni E Genetic characterization of Italian swine influenza viruses: 2011-2013. Proceedings of the 23rd International Pig Veterinary Society (IPVS) Congress June 8-11, 2014, Cancun , Mexico, 315.

- Antonio Piralla, Ana Moreno, Maria Ester Orlandi, Elena Percivalle, Chiara Chiapponi, Emanuela Foni, Mario Luini, Fausto Baldanti. Swine InfluenzaH3N2Virus infection in an immunocompromised adult patient, Italy 2014. 17th Annual Meeting of European Society for Clinical Virology . Prague 28/9-1/10 2014

c) National conferences: 1

Foni E., Arioli E., Bongiovanni E., Bresaola M., Codato A., Donna R., Faccenda M., Fruttero F., Gamba F., Giorgiutti M., Salvini F., Zizioli B., Leotti G., Merdy O., Vila T., Joisel F., Ostanello F. Influenza Suina: profili sierologici in animali vaccinati di allevamenti del Nord Italia. Atti XL Meeting Annuale SIPAS Montichiari(BS) 27-28 Marzo 2014, 251-260.

d) Other:

(Provide website address or link to appropriate information) 0

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?

No

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 certified according to an International Standard?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
EN ISO/IEC 17025:2005	Scan-Parma-20150105104146.pdf

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

No

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 2014, Chapter 1.1.3a)

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?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
Third Global Conference of OIE Reference Centres	14-16 October 2014	Incheon (Seoul)	partecipant	

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.
Polymerase Chain Reaction for gene M	partecipant	17	OIE Reference Laboratory for Avian Influenza. IZSVE Padua

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
CoVetLab	Development and validation of molecular tools for sub-typing swine influenza viruses	AHVLA OIE Reference laboratory for Swine Influenza

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?

Yes

Kind of consultancy	Location	Subject (facultative)
Review of Chapter 2.8.8. Swine Influenza in Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2014	remote	Chapter 2.8.8. of Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2014

25. Additional comments regarding your report: