

These teaching materials were developed by IAEA through the Technical Cooperation Department and the Animal Production and Health Section of the Joint FAO/IAEA Centre under the National Training Course for the Early and Rapid Detection of African Swine Fever (ASF) in Pigs / / Technical Cooperation Project: DOM/0/006: Building and Strengthening the National Capacities and Providing General Support in Nuclear Science and Technology.

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Brief description

Between October 25 and 29, 2021 the Training Course on Laboratory Diagnosis of African Swine Fever (ASF) was held as part of the technical cooperation project with the Dominican Republic (DOM0006). The course was organized in conjunction with the Complutense University of Madrid.

The course was held in a hybrid way, with two experts from the University traveling to train counterparts from the Central Veterinary Laboratory (LaVeCen), and more than 220 participants from different Latin American countries connected virtually.

The following video, produced by the Complutense University of Madrid, summarizes the laboratory diagnosis of African Swine Fever.

Below you can find the presentations and recordings* of the course.

* Recordings are raw materials from the training course and were not professionally processed.



Special video developed by the IAEA in collaboration with FAO and the Universidad Complutense de Madrid.

NAME	DESCRIPTION	PRESENTATION(S)	LINK
Laboratory Diagnosis of African Swine Fever.	Diagnostic techniques for detection of the African Swine Fever (ASF) Virus.	-	Video link

Presentations and video recordings of the training course.

DAY	TALK	NAME	DESCRIPTION	PRESENTATION(S)	VIDEO LINK
1	1	Global situation of the African Swine Fever disease	"Global situation of the African Swine Fever disease". The talk addresses the situation of ASF in the five continents and the current risks	Presentation	Video link
1	2	Main characteristics of ASF disease	"Main characteristics of ASF disease". The talk discusses the main characteristics of the disease and options that can be taken to address this challenge	Presentation	Video link
1	3	Importance of the laboratory diagnosis for ASF surveillance and control	"Importance of the laboratory diagnosis for ASF surveillance and control". The talk highlights the importance of laboratories in surveillance and control programmes while exploring the laboratory diagnosis (samples, transportation, techniques, interpretation of results)	Presentation	Videolink
1	4, 5	Importance of the early detection of the disease and clinical presentation and main lesions observed in ASF disease	"Importance of the early detection of the disease" and "clinical presentation and main lesions observed in ASF disease". The talks stress the importance of early detection reinforcing the clinical presentation and main visible lesions	Presentation	Video link
1	6	Differential diagnosis with other haemorrhagic diseases	"Differential diagnosis with other haemorrhagic diseases". The talk continues in the line of laboratory diagnosis exploring the differential diagnosis with other diseases	Presentation	Video link

DAY	TALK	NAME	DESCRIPTION	PRESENTATION(S)	VIDEO LINK
2	1	Introduction to ASF laboratory diagnosis: samples of choice and transport to the laboratory, reception and registration	"Introduction to ASF laboratory diagnosis: samples of choice and transport to the laboratory, reception and registration". The talk begins with the laboratory diagnosis of ASF, analysing the first steps concerning the samples, their transportation, their reception and their registration	Presentation	Video link
2	2	Diagnosis techniques for ASF diagnosis. Introduction to molecular diagnosis	"Diagnosis techniques for ASF diagnosis. Introduction to molecular diagnosis". The talk continues with the laboratory diagnosis by presenting the molecular diagnosis (DNA extraction for conventional and real time PCR)	Presentation	Video link
2	3, 4	Molecular diagnosis: DNA extraction for conventional and real time PCR and real time PCR, step by step	"Molecular diagnosis: DNA extraction for conventional and real time PCR" and "Molecular diagnosis: real time PCR, step by step". The talks continue with the laboratory diagnosis by presenting the molecular diagnosis (DNA extraction for conventional and real time PCR)		Videolink
3	1	PCR results interpretation: clinical cases	"PCR results interpretation: clinical cases". In this practical lecture the participants can actively engage in discussing PCR results and their interpretation	Presentation	Video link
3	2	Introduction to serological diagnosis of ASF: main techniques	"Introduction to serological diagnosis of ASF: main techniques". The talk continues with the laboratory diagnosis by presenting the serological diagnosis (main techniques, detection of antibodies using different tests)	Presentation	Video link
3	3, 4, 5	Detection of anti-ASFV antibodies using the Ingenasa ELISA test, Detection of anti-ASFV antibodies using the ID-VET ELISA test and Detection of anti-ASFV antibodies using a rapid test (Penside)	"Detection of anti-ASFV antibodies using the Ingenasa ELISA test", "Detection of anti-ASFV antibodies using the ID-VET ELISA test" and "Detection of anti-ASFV antibodies using a rapid test (Penside)". The talks continue with the laboratory diagnosis by presenting the serological diagnosis (main techniques, detection of antibodies using different tests)		Video link
4	1	Clinical cases and interpretation of results	"Clinical cases and interpretation of results". In this practical lecture the participants can actively engage in discussing serological results and their interpretation	Presentation	Video link

DAY	TALK	NAME	DESCRIPTION	PRESENTATION(S)	VIDEO LINK
4	2	Introduction to sequencing of ASF virus: PCRs and main tools for interpretation: sequencing and genotyping	"Introduction to sequencing of ASF virus: PCRs and main tools for interpretation: sequencing and genotyping"	Presentation	Videolink
4	4	Access to free-of-charge Sanger Sequencing Services	"Access to free-of-charge Sanger Sequencing Services for the Counterparts Laboratories to enable for genetic characterization of ASFV"	Presentation 1 Presentation 2	Video link
5	2	Simulation of ASF outbreak in the laboratory	"Simulation of ASF outbreak in the laboratory". This practical talk simulates an ASF outbreak for the engagement of the participants		Video link
5	3	Training Course on the Laboratory Diagnosis of ASF - Extra questions	Extra questions of the Training Course on the Laboratory Diagnosis of African Swine Fever		Video link