

# African Swine Fever: diagnostic & vaccines

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Improved diagnostic methods and understanding of virus epidemiology and virus-host relationships

African swine fever is one of the most important diseases of pigs. 7 European research institutes and universities have decided to improve diagnostic methods and tools to better understand the virus epidemiology and the relationships between host, virus and vector.

African swine fever is one of the most important diseases of pigs. Its control relies solely on efficient diagnosis and application of strict sanitary measures. Vaccine has never been obtained.

ASFV infects domestic pigs and *Ornithodoros* sp. ticks (shown as vectors in Iberian Peninsula before the disease was eradicated). Danger of ASF re-emergence and/or new introduction is a major concern for EU, due to lacking knowledge on mechanisms of viral persistence in the pig and in ticks and because several European countries have close contacts with African countries where the disease is nowadays devastating.

## Objectives

Three objectives are identified. The first objective is to improve diagnostic methods to enable rapid implementation of prophylactic measures and to improve knowledge on the epidemiology of the disease and on the knowledge on mechanisms of viral persistence in pigs and in ticks.

A second objective targets the development of standard diagnostic tools for molecular identification of samples and their implementation within molecular epidemiological and viral strains traceability programmes.

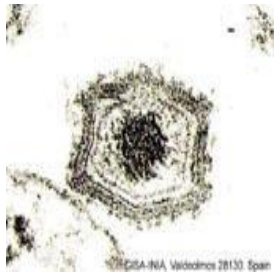
A last objective concerns the relationships between host & virus, and vector & virus, through genetical modifications of pathogenic strains; consequences for virus pathogenicity, immune response in pig and for resistance in ticks will be assessed.

Accomplishment of this proposal will lead to improved control strategies of ASF.

## Project coordinator

The project's co-ordination is assumed by Dr Carlos Martins from the Faculty of Veterinary Medicine in Lisboa (Portugal).

## Scientific partners



Yes