

PhD Thesis Defense Almudena Sánchez-Matamoros

Epidemiological evolution and control of African Horse Sickness

Almudena Sánchez Matamoros read her PhD Thesis entitled "Evolution and epidemiological control of African Horse Sickness" directed by Dr. Jose Manuel Sánchez-Vizcaíno, Dra. Eva Iglesias and Dra. Deborah Kukielka will be present on 26th February at 16:30 in the Veterinary School.

African horse sickness (AHS) is a notifiable disease to the World Organization for Animal Health (OIE), due to its high pathogenicity and great spread that causes devastating socio-economic consequences. This disease is one of the most important vector-borne viral diseases affecting *Equidae*. The current situation of the disease, the increase of vector density and distribution in Europe, probably associated to climate change, make this disease is considered a re-emerging disease in Europe.

Spain plays an important role in the epidemiology of this disease by its location and climate, being one of the introduction ways of AHS to Europe. Furthermore, Spain is characterized by an important horse population and abundant vectors distribution with two previous epidemics in our country (1966 and 1987-1990). Therefore, the re-emerging of the disease has activated all alarms of Spanish and European horse sector.

The present PhD thesis aims to provide the equine industry new tools and knowledge to improve prevention and control plans for the AHS based on risk-based surveillance and cost-benefit strategy. The thesis includes immunological studies, new diagnostic techniques and epidemiological and economic assessment of the AHS spread in Spain.