

# Keynote speakers



## Arnaud Bataille

*Arnaud Bataille is a researcher in virology at CIRAD, Montpellier, France, focusing principally on the Peste des petits ruminants virus (PPRV). He investigates the transmission and evolutionary dynamics of PPRV with the aim of elaborating better control strategies. He contributes to the development of new diagnostic tools and of vaccines against PPR. He is deputy head of the OIE/FAO and EU reference laboratories for PPR at CIRAD.*

### **Peste des Petits Ruminants: state of affairs and the road towards eradication\***

Peste des petits ruminants (PPR) is a highly contagious viral disease of small ruminants that causes mortality rates that may be as high as 90% in naïve populations. The disease is caused by *Peste des petits ruminants virus* (PPRV), which is an enveloped ribonucleic acid (RNA) virus with a monosegmented genome of negative sense, belonging to the genus *Morbillivirus* in the family *Paramyxoviridae*. This virus has only one serotype but can be separated in four distinct phylogenetic lineages.

PPR is currently present in Africa, Middle East, and Asia. It represents a serious risk for the economy and food security in regions the disease is endemic. With multiple outbreak recorded in Turkey, Georgia and the Maghreb region, it is now at the door of Europe. In addition, a recent mass die-off of critically endangered Saiga antelopes in Mongolia has been associated with PPR infection, bringing a new light onto the impact of this pathogen on wildlife.

Inspired by the eradication of closely related Rinderpest virus, the World Organisation for Animal Health (OIE) and the Food and Agriculture Organisation (FAO) launched in 2015 a global campaign for the eradication of PPR. This effort will rely on massive vaccination campaigns based on widely-used, live attenuated vaccines. The campaign requires an important financial investment, but will clearly be highly economically and socially beneficial.

Here, we will review the knowledge of PPR epidemiology and the threat of this disease to Europe. We will discuss recent and on-going research of major importance for the success of the eradication campaign, notably on vaccine development, transboundary infection dynamics, and the role of wildlife in PPR transmission. Finally, we will examine the major gaps in our knowledge of this disease and how those could hinder the global eradication effort.

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