

SFS-12-2019: A vaccine against African Swine Fever

Specific Challenge: African Swine Fever (ASF) is a devastating viral disease of swine which is endemic in Africa and has been present in Europe for several years, after its introduction from Trans-Caucasian countries. It is a transmissible disease that has the potential for very serious and rapid spread, irrespective of national borders, is of serious socio-economic impact on farming sector and is of major importance in the international trade of animals and animal products. While in EU, strict control measures including in particular biosecurity, culling of infected pigs, killing of wild-boars, have so far managed to contain the spread of the disease, restrictions on farming and trade remain, the threat is permanent (including incursion of exotic strains from endemic countries) and concerns are raised on the possibility to eradicate the disease without vaccination. No vaccine is currently available and the development of effective and safe ASF vaccines is urgent as an additional tool to re-inforce control and eradication strategies.

Scope: The research proposals will address the necessary steps for the development of a safe vaccine against ASF for domestic pigs and wild-boars. Proposals should build on current knowledge on the characteristics of the virus and research gaps with the overall purpose of developing a pilot vaccine and its companion DIVA test. Activities should address vaccination as part of a control strategy in different scenarios and should consider the potential impact on animal production and trade. Particular focus should be put on the European situation and the role of wild-boars. Therefore, the strains of ASF viruses to be addressed should at least be those circulating in Europe, but may as well cover all or the most relevant exotic strains. Accordingly, wild fauna other than wild-boars, involved in the epidemiology and for which vaccination may help control the disease, may also be addressed. Participation from non-EU regions particularly affected by ASF is recommended.

Proposals should fall under the concept of the 'multi-actor approach' and be based on the active participation of stakeholders from research, animal health authorities and the farming and business sectors. Involvement of the pharmaceutical industry is highly recommended.

The Commission considers that proposals requesting a contribution from the EU of up to EUR 10 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude the submission and selection of proposals requesting other amounts.

Expected Impact:

- A pilot ASF vaccine for the possible prevention and/or eradication of the disease in domestic pigs and wild-boars, with TRL* 5 to 6.
- Contribution to international cooperation on animal health research, potentially reducing the threats from the introduction of exotic ASF virus strains in the EU and reducing the burden of ASF in non-EU countries.

More generally, the selected project will contribute to a reduction of economic losses by the farming sectors and contribute to healthy livestock production. It will contribute to reduce the sanitary barriers to trade in swine and products therefrom.

Type of Action: Innovation action IA

*L'échelle TRL (en anglais *technology readiness level*, qui peut se traduire par niveau de maturité technologique)