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COMBATTING FUTURE BIOLOGICAL THREATS – HOST-DIRECTED INTERVENTIONS TO EMERGING THREATS FOR RAPID RESPONSE

Bioreactor Of Emergent Pathogen Variants And Asf Vaccine Prophylaxis

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In the 1990s, we established the traffic of Teshovirus in the post-Chernobyl territories, which had catastrophic consequences for backyard piggery not only in Ukraine, the RF, and Belarus (A.I. Buzun et al., 1996-2003), but also with high probability in Haiti (2007-2008). The massive transboundary introduction of African swine fever (ASF) into the same territories since 2014 prompted an investigation into possible emergent manifestations of asfarvirus. We established the property of the field isolate "IEKVM/Ternopil/2015" to reproduce practically without adaptation in the cell line "CV" (A.I. Buzun et al., 2023). This sign of genetic labiality of the pathogen is consistent with data on the high level of its biodiversity in Ukraine, as well as the high probability of channeled spread of asfarvirus from the post-Chernobyl territories even to Belgium (Bortz E. et al., 2020). Therefore, in order to avoid the cross-border spread of emergent variants of the pathogen, the possible vaccine prophylaxis of ASF in Ukraine should be carried out in the mode of disease eradication with the mandatory replacement of vaccinated pigs with non-vaccinated ones or with its meat-processing.

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