Ebolavirus disease (EVD) is a severe, often fatal illness in humans, that has occurred in numerous outbreaks. Currently no specific treatments exists for EVD and no licensed vaccine is available. The most advanced candidate is the recombinant rVSVΔG-ZEBOV-GP vaccine based on the replication-competent recombinant vesicular stomatitis virus (VSV).

The VSV-EBOPLUS collaborative research project on “Systems analysis of adult and pediatric responses to the VSV-ZEBOV Ebola vaccine” is aimed to decipher the immune and molecular signatures of adult and pediatric responses elicited by the rVSVΔG-ZEBOV-GP vaccine, the only Ebola vaccine with demonstrated 100% protective efficacy in humans.

VSV-EBOPLUS applies advanced cutting-edge technologies and systems vaccinology approaches to characterize the signatures of the responses to rVSVΔG-ZEBOV-GP vaccination in clinical studies conducted in three different continents (Europe, Africa, US), in almost 1,000 adults, adolescents and children.

The project, of the duration of 5 years, has a total budget of more than €15 million, and it is funded by the Innovative Medicines Initiative 2 (IMI 2) Joint Undertaking.

VSV-EBOPLUS factsheet
GRANT NUMBER: 116068
COORDINATOR: Sclavo Vaccines Association
CALL IDENTIFIER: IMI2 – Call 8
START DATE: 01 April 2016
DURATION: 60 months
PROJECT COSTS: € 15 430 660
REQUESTED EU CONTRIBUTION: € 8 553 750
PARTNERS: 11 from 8 countries

VSV-EBOPLUS Specific Objectives:

- Characterize the innate and adaptive immune responses elicited by various doses of rVSVΔG-ZEBOV-GP vaccine in adults and children in clinical trials conducted in Switzerland, Gabon and USA
- Assess the dynamic of the metabolomics and immunologic profiles to define how they correlate to vaccine reactogenicity, antibody responses and viral control
- Identify the contribution of specific cells to rVSVΔG-ZEBOV-GP-induced innate responses
- Determine the dynamic transcriptomic profiles of adult and pediatric responses to rVSVΔG-ZEBOV-GP vaccination at multiple time points
- Generate/exploit the clinical safety/reactogenicity and the immunology (metabolomics, immunomics, and transcriptomics) databases for integrative analysis
Systems analysis of adult and pediatric responses to the VSV-ZEBOV Ebola vaccine

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