# Filovirus CORC Review of Available Data on Ebola Vaccine Cross-Immunity

*9 June 2026*

**Overview**

- An overview of existing data regarding the potential for cross-reactivity/cross-protection of rVSV-ZEBOV-GP (Ervebo) against Bundibugyo (BDBV) was presented.

**Studies reviewed included:**

- **Study 1** - Falzarano et al., 2011 — heterologous protection of rVSV-ZEBOV against BDBV in macaques
- **Study 2** - Mire et al., 2013 — comparison of homologous and heterologous rVSV vaccine strategies against BDBV
- **Study 3** - Ehrhardt et al., 2019 — characterization of cross-reactive monoclonal antibodies induced by rVSV-ZEBOV
- **Study 4** – Lhomme et al., 2026 - Cross-reactivity analyses from the PREVAC randomized trial (preprint)
- **Study 5** - Smith et al., 2026 — Multiplex Pan-Filovirus assay (preprint)
- **Study 6** – Lehrer et al., 2026 – Prime-boost NHP study of Ervebo with and without recombinant subunit vaccine (unpublished data)
- **Study 7** – Mishra et al., 2026 – Detailed immune characterization of human immune responses to Ervebo (unpublished data)
- An overview of available evidence related to BDBV and clinical readiness of other clinical stage filovirus vaccine candidates was also presented, highlighting the lack of evidence and limitations in supply in some cases.
- An overview of the WHO Emergency Guidance which was developed based on the existing evidence which advises against programmatic implementation of Ervebo, but does not preclude clinical evaluation of Ervebo for BDBV (https://iris.who.int/handle/10665/386257), was reviewed.
- An overview of CEPI's support for BDBV vaccine development, including a summary of the Request for Proposals that is currently open, was shared.
- The status of the Solidarity Trial (immunogenicity/efficacy trial design for Filovirus candidates) with updates from the teams working on updating the protocol to address BDBV and identification of potential study sponsors (with WHO no longer sponsoring) was discussed. This was acknowledged as a critical issue for late stage vaccine development.

**Discussion**

Discussion focused on the ideal data package that would provide compelling evidence for Ervebo to be further evaluated in clinical trials for potential protective activity against BDBV.

**Key feedback and recommendations**

- The potential value of additional NHP studies were discussed.
- Additional immunogenicity data are available as part of an ongoing NHP study of the recombinant subunit prime-boost strategy (Study 6 above). A BDBV challenge for the animals in the study is being planned. The 4 animals in the control group received Ervebo alone, so will provide data from an additional 4 animals on the potential cross-protection.
- While it was broadly agreed that additional NHP data is always valuable, the priority of conducting an additional NHP study for Ervebo needs to be weighed versus testing of homologous BDBV vaccine and therapeutic candidates given the very limited NHP challenge resources available in the world.
- Existing immunogenicity data from Phase 1 and 2 studies as well as Expanded Access deployment of Ervebo (Studies 3, 4, 5, and 7 above) have demonstrated that cross-reactive antibodies which react with BDBV are induced by Ervebo, but that the titers of those antibodies are lower (~10 fold or more) than those against Zaire ebolavirus. While additional characterization of the antibody responses induced in the studies may be conducted, there is no value to conducting additional clinical trials to assess immunogenicity as there are samples available from already conducted trials. While there is no established correlate of protection, binding antibody appears to be a better indicator of protection than virus neutralization (Grais et al., 2021, Lancet Microbe).
- The fact that large number of individuals (>300,000) including healthcare and frontline workers have received Ervebo as part of prior ring vaccination and prospective vaccination campaigns in the affected regions of the DRC was highlighted. The opportunity to conduct studies potentially assessing cross-protection (e.g. case-control type approaches) in some of those individuals was raised as an important effort that should be prioritized by the research community. Since durability of protection for Ervebo, even against Zaire ebolavirus, is uncertain and some individuals were vaccinated > 5 years ago the interpretation of the data should be carefully considered. However, a positive signal of potential efficacy would be a compelling piece of evidence to support further evaluation of Ervebo as a potential MCM for BDBV.
- No other additional studies that would inform moving Ervebo as a stand-alone vaccine forward into a clinical efficacy trial for BDBV were identified.
- However, there was support for considering advancing prime-boost strategies forward into clinical evaluation, including interest expressed by MSF to support such studies.