PRE-CLINICAL

Bundibugyo virus vaccine development program

Translating **science** into **global** health impact

IAVI is developing a vaccine candidate for protection against Bundibugyo virus (BDBV) in response to the 2026 epidemic in the Democratic Republic of the Congo.

The one-dose candidate uses recombinant vesicular stomatitis virus (rVSV), the same technology behind the WHO-prequalified Ebola virus vaccine, which is licensed in more than a dozen countries.

About BDBV

- In the *Filoviridae* family of highly pathogenic viruses.
- Endemic to sub-Saharan Africa (sSA).
- One of four orthoebolavirus species known to cause illness in humans.
- Causes severe and often fatal febrile illness, sometimes with hemorrhage, called Bundibugyo virus disease (or sometimes Ebola disease).
- Zoonotic; transmission by wildlife to humans can result in onward transmission between humans.
- No vaccine or specific treatment is available; existing Ebola virus vaccines may not protect against BDBV.
- Highest risk of infection among health workers, family members of infected people, and people who hunt and consume wildlife in affected regions.

Results

- Currently in pre-clinical development; Phase 1 trial planned.[1]
- Preclinical challenge studies show that one dose of the BDBV vaccine provided substantial, rapid protection to most animals after challenge with live virus.

BDBV by the numbers

0
Approved vaccines or therapeutics

3
Reported outbreaks caused by BDBV in sSA

12-13%
Secondary attack rate in past Ebola (Sudan) outbreaks[2]

30-50%
Case fatality rates in past BDBV outbreaks[3]

99%
Risk of neonatal loss from Ebola disease[4]

$1 billion
Cost of 2018-2020 Ebola outbreak response[5]

Impact

In 2026, the WHO identified IAVI's one-dose rVSV-based BDBV vaccine candidate as the most promising in development. Only two outbreaks have been caused by this virus before the current epidemic, which has become the second largest Ebola outbreak in history and the fastest growing on record. IAVI has a goal of making the candidate available for evaluation in the current epidemic if timing allows.

> **"We are acting with urgency to advance this candidate quickly and responsibly."**
>
> *– Mark Feinberg, president and CEO, IAVI*

Visit IAVI's emerging infectious diseases page for more information.

[1] https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0002600; https://www.biorxiv.org/content/10.64898/2026.06.14.732188v1; https://academic.oup.com/jid/article/228/Supplement_7/S712/7192345

[2] https://www.researchgate.net/publication/391119006_Transmission_characteristics_of_Sudan_virus_disease_outbreak_in_Uganda_in_early_2025

[3] https://www.who.int/emergencies/disease-outbreak-news/item/2026-DON606

[4] https://pmc.ncbi.nlm.nih.gov/articles/PMC9157681/

[5] https://pmc.ncbi.nlm.nih.gov/articles/PMC10583089/#s3

Partnerships

- IAVI's BDBV R&D program is funded by the Biomedical Advanced Research and Development Authority (BARDA), the Coalition for Epidemic Preparedness Innovations (CEPI), and the Dutch Government.
- IAVI is leading overall program development, clinical development, regulatory strategy, regulatory engagement, and preparedness planning. Hilleman Laboratories is producing initial vaccine doses for clinical evaluation. SK bioscience will lead manufacturing scale-up activities to generate a stockpile of investigational vaccine. IDT Biologika will carry out fill-finish of doses to be stockpiled. MSD will provide technical assistance in support of vaccine manufacturing efforts
- IAVI is pursuing African manufacturing solutions for eventual local production of our rVSV-based vaccines. IAVI and Institut Pasteur de Dakar (IPD) in Senegal have established a collaboration to research, develop, manufacture, and commercialize a range of novel vaccine candidates for both endemic and emerging infectious disease (EID) threats – all manufactured using a common vaccine production platform.
- IAVI's rVSV BDBV vaccine candidate originates in research by Andrea Marzi, Heinz Feldmann, and their teams at the Laboratory of Virology, National Institute for Allergy and Infectious Diseases (NIAID), and was first tested in non-human primates by Thomas Geisbert of The University of Texas Medical Branch (UTMB). IAVI has signed agreements with both institutions to facilitate our work on the candidate.

IAVI gratefully acknowledges the generous support provided by the following major funders:

Biomedical Advanced Research and Development Authority (BARDA) | Foundation for the National Institutes of Health | National Institute of Allergy and Infectious Diseases | amfAR, The Foundation for AIDS Research | Broadway Cares/Equity Fights AIDS | The City of New York, Economic Development Corporation | Congressionally Directed Medical Research Program (DoD) | GSK | The Hearst Foundations | Keith Haring Foundation | Merck & Co., Inc., Kenilworth, NJ, USA (known as MSD outside the USA and Canada)

And many other generous individuals and partners around the world

As of January 2026