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Ebola Vaccine Antibody Study

Ebola virus [pictured, virus particles [blue] budding from infected VERO E6 cell [yellow-green]] causes severe hemorrhagic fever in humans and nonhuman primates, which leads to shock, bleeding, and multi-organ failure. According to the World Health Organization, Ebola hemorrhagic fever has a fatality rate of nearly 90 percent. Several experimental vaccines protect nonhuman primates from Ebola virus, but the protection source was unknown. NIAID researchers and colleagues recently determined that the level of antibody production was the critical factor for protection.



Laboratory of Virology [LV] at NIAID's Rocky Mountain Laboratories

Dr. Heinz Feldmann's Laboratory of Virology [LV] at the National Institute of Allergy and Infectious Diseases' [NIAID] Rocky Mountain Laboratories conducts innovative scientific research on viral agents requiring high or maximum containments [biosafety level 2 to biosafety level 4]. LV scientists broadly study pathogens that cause viral hemorrhagic fevers, viral encephalitis, and certain respiratory diseases. Research studies focus on vector/reservoir transmission, viral ecology, pathogenesis, pathophysiology, and host immune response of these viral pathogens. This work employs investigations in cell culture; animal models, including nonhuman primates; reservoir species; and arthropod hosts to elucidate the viral pathogenesis, immune responses, molecular evolution, cellular and molecular biology, and vector-host interactions. A significant goal is to develop diagnostics, vaccines, and therapeutics against these agents.

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