

# HIV vaccines elicit immune response in infants

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A new analysis of two HIV vaccine trials that involved pediatric patients shows that the investigational vaccines stimulated a critical immune response in infants born to HIV-infected mothers, researchers at Duke Medicine report.

The finding, reported Oct. 8, 2013, at the AIDS Vaccine 2013 meeting in Barcelona, Spain, examined samples from two previously completed pediatric HIV [vaccine](#) trials – called PACTG 230 and PACTG 326 - to determine whether they elicited a key [immune response](#) that has only recently been associated with reduced HIV infection.

Searching for evidence of an anti-V1V2 IgG antibody response - the newly identified mechanism for protection against HIV - the researchers found that both of the old pediatric vaccine candidates triggered this key immune defense.

While babies born to HIV-infected mothers had maternally acquired anti-V1V2 IgG antibodies at birth, infants who were vaccinated had better and longer-lasting antibody responses than their counterparts who received a placebo vaccine.

"Effective infant HIV vaccination may be affected by the presence of maternal HIV-specific antibodies and the immaturity of the infant immune system," said the study's lead author, Genevieve Fouda, M.D., PhD, of Duke. "Our findings suggest that vaccination of infants born to HIV-infected mothers can elicit a robust anti-HIV envelope IgG immune

response."

Fouda said the results of the study highlight the importance of including pediatric populations in HIV vaccine studies.

"Mother-to-child transmission continues to be an important public health issue in resource limited areas," Fouda said. "Every year, approximately 300,000 infants are infected with HIV. Antiretroviral drugs have reduced the rate of mother to child transmission rate in the United States below 2 percent, but overall in low and middle income countries less than 60 percent of known HIV infected women receive drugs to prevent transmission to their [infants](#). Immune-based interventions such as a vaccine are needed to eliminate pediatric HIV."

Provided by Duke University Medical Center

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