A New Type of HIV Vaccine

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The first participant in a Phase I trial has received an experimental preventive vaccine, dubbed VIR-1388, which is designed to help the immune system produce T cells that fight HIV. The vaccine uses a weakened cytomegalovirus (CMV) vector to deliver HIV antigens.

So far, traditional HIV vaccines that stimulate the production of antibodies have failed in large trials. A more sophisticated strategy known as germline targeting, which aims to spur the development of specialized B cells that produce broadly neutralizing antibodies, is still in early stages of development. Vir Biotechnology is taking a different approach based on T-cell immunity, rather than antibodies, in an effort to prevent the virus from establishing chronic infection.

The HVTN 142 trial is enrolling people at low risk for HIV in the United States and South Africa who already have asymptomatic CMV infection. The 95 participants will be randomly assigned to receive one of three doses of VIR-1388 or placebo injections. Initial results are expected in the second half of 2024.

“HIV continues to be a major global public health challenge with no approved vaccines despite decades of research efforts,” says Carey Hwang, MD, PhD, Vir’s senior vice president for clinical research. “We are hopeful that our unique approach will help close the longstanding public health gap in HIV prevention.”
