Cure: Gene Therapy Has HIV in a Bind

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Stanford scientists have created a new way to manipulate the genes of CD4 cells in order to buffer them against HIV infection. HIV enters CD4s by first binding to either the CCR5 or CXCR4 receptors on the cells' surface. The scientists created a splice in the DNA of the CCR5 receptor and added three new genes to create multiple layers of resistance to HIV, helping to block the virus's entry through both the CCR5 and CXCR4 receptors. Testing the gene therapy in a lab setting, the Stanford researchers inserted one, two or all three genes into CD4s. Those cells that received the triple modification had more than a 1,200-fold protection against HIV molecules that use the CCR5 receptor for entry (called "CCR5-tropic") and a 1,700-fold protection against CXCR4-tropic HIV.

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http://beta.docker.poz.com/article/cure-june-2013-23865-6583