Quest for a Cure [VIDEO]

November 11, 2010 By David Evans

On November 3, people living with HIV and their allies gathered in West Hollywood to hear about an exciting new experiment that's about to get under way. At the meeting, sponsored by the AIDS Policy Project, John Zaia, MD, from the City of Hope in Duarte, California, and Paula Cannon, PhD, from the University of Southern California in Los Angeles, explained the potential behind their new approach to curing AIDS: genetically modifying stem cells taken from people living with both HIV and lymphoma to render their immune systems resistant to HIV. If the treatment works, not only would it cure the study participants' lymphoma, it could also cure their HIV.

If this sounds far-fetched, it's not. About three years ago, an enterprising German hematologist named Gero Hütter, MD, decided to do something that had never been done before. He had an HIV-positive patient who had leukemia and needed a bone marrow (stem cell) transplant. Hütter decided to look for a bone marrow donor with a unique characteristic: a genetic defect that makes people highly resistant to HIV infection. He found such a donor and then conducted the transplant. Three years later, the patient has no detectable virus and remains off of all antiretroviral therapy.

Is this a cure? We can't know for sure, but things look quite promising. Zaia and Cannon are about to attempt something similar, but with a twist. Rather than looking for a donor with this somewhat rare genetic defect, they are using a technology called zinc-finger nucleases to alter the genes of the study volunteers' stem cells so that they have the same type of resistance to infection as the German patient. There's no knowing whether it will work, but the fact that cure-based research is now moving into the laboratory is remarkable all by itself.

Here's what Zaia and Cannon had to say about their experiment and the possibility of a cure. The AIDS Policy Project's Kate Krauss also shares some thoughts about how you can help support cure research.

© 2026 Smart + Strong All Rights Reserved.

http://beta.docker.poz.com/article/hiv-cure-cannon-19391-3805