

HIV vaccine moves towards clinical trials

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Researchers at the California National Primate Research Center and Center for Comparative Medicine at UC Davis contributed to development of an HIV vaccine that will go into clinical trials in 2017. Credit: K. West/CNPRC

A vaccine for HIV developed by Oregon Health Sciences University in collaboration with the California National Primate Research Center is now moving towards clinical trials. The vaccine uses another virus,

cytomegalovirus or CMV, as a "backbone" to carry small pieces of HIV into the body and arm the immune system.

OHSU hopes to enroll the first volunteers in the phase 1 trial in summer, 2017. The trial will look only at the safety of the vaccine, and whether it provokes an immune response in people.

Peter Barry, a professor of medical microbiology at UC Davis and director of the Center for Comparative Medicine, is an expert on CMV, a type of herpes [virus](#) that infects 50 to 70 percent of Americans, mostly without causing disease. A version of the virus called RhCMV that can infect [rhesus macaques](#) is widely used to study diseases including CMV and HIV.

Barry and postdoctoral researcher William Chang genetically engineered RhCMV so that snippets of genes from other viruses could be inserted into the virus. They shared their modifiable CMV with Professor Louis Picker at OHSU, who used this genetic backbone to create experimental vaccines against the monkey form of the AIDS virus, simian immunodeficiency virus or SIV.

Up to 60 percent of rhesus macaques immunized with Picker's vaccine at the Oregon National Primate Research Center were protected against infection with SIV – an unprecedented level of success for a SIV or HIV vaccine.

Picker is now working with Barry, Professor Alice Tarantal at UC Davis and other researchers at the Center for Comparative Medicine and California National Primate Research Center at UC Davis to develop new versions of the [vaccine](#) based on human CMV for use in the clinical trial, and to carry out additional safety testing.

Provided by UC Davis

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