



HIV Research Has Led to Advances for Multiple Diseases

Contributions include advancements in immunology, vaccinology, oncology, cardiovascular and neurodegenerative diseases and aging.

January 5, 2026 By [Liz Highleyman](#)

At a time when federally funded HIV research is under threat, a group of leading experts has highlighted how HIV science over the past 40 years has not only produced dramatic advances in prevention and treatment of the virus but has also led to innovations for many other conditions.

“Thanks to broad U.S. investment, HIV research has opened the door to breakthroughs and treatments for diseases far beyond HIV/AIDS,” says Larry Corey, MD, of the Fred Hutch Cancer Center in Seattle, one of the coauthors of the commentary in *Nature Medicine*.

U.S.-funded HIV research has saved millions of lives worldwide and made the nation a leader in global health. “No other condition has required the kind of global solidarity and innovation in implementation science that the HIV/AIDS pandemic demanded,” says Chris Beyrer, MD, MPH, director of the Duke University Global Health Institute.

HIV prevention, treatment and cure research has contributed to advances in immunology, vaccinology, oncology, cardiovascular and neurodegenerative diseases and aging. For example, CAR-T therapy, which was initially studied as a potential treatment for HIV, is now used to train immune cells to attack cancer. Antiviral treatments for hepatitis B and C largely originated in the HIV field. Insights gained from studying accelerated aging in people with HIV are shaping emerging strategies in geriatrics for the population at large. And although there is still no effective vaccine for HIV, lessons from HIV vaccine research informed the rapid development of COVID-19 vaccines.

“A well-resourced deep dive into the understanding of just one infection turned out to be a great way to learn about human biology,” says Steven Deeks, MD, of the University of California San Francisco.

