

In a new report, researchers look back on the 30-year effort to develop an HIV vaccine.

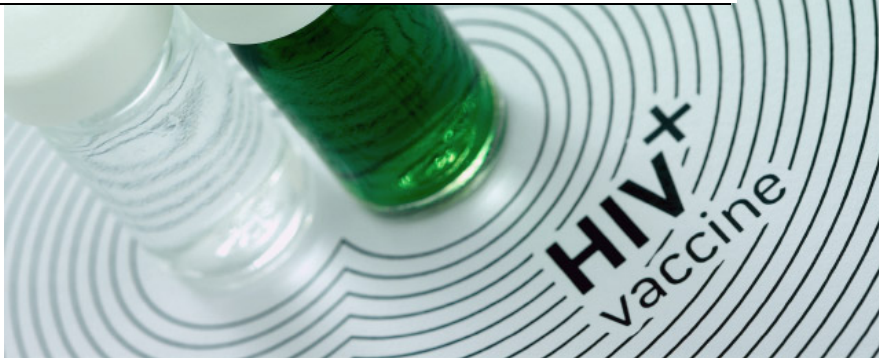


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Researchers Closer Now to HIV Vaccine Than Ever Before



In a global pandemic, the medical community rises up to find a cure.

With viral diseases, that cure often takes the form of a vaccine. But with the human immunodeficiency virus (HIV), the quest for such a vaccine has been a 30-year journey.

In a new [report](#) published in *Science*, researchers from the National Institute of Allergy and Infectious Diseases (NIAID) took a look back at the past three decades of research and action into an HIV vaccine.

Although the acquired immune deficiency syndrome (AIDS) epidemic is often associated with the 1980s and early 1990s, AIDS and HIV are still very much a part of many lives in the United States and around the world.

A vaccine against HIV would help millions.

“Obviously, a vaccine for HIV is one of the most important goals that we have if we want to durably end the AIDS epidemic,” said report co-author Dr. Anthony Fauci, director of the NIAID. “I think we’re doing a very good job of decreasing death and infections, even in the absence of a vaccine.”

About 1.2 million Americans were living with HIV at the end of 2011, the most recent year the Centers for Disease Control and Prevention (CDC) has data for. Across the world, there were about 35 million people living with HIV in 2013.

Of those living with HIV in the United States, nearly 13 percent did not know they were infected. Each year, approximately 50,000 Americans are newly infected with HIV. For those, a vaccine could mean never developing full-blown AIDS.

“A vaccine, as with all viral diseases, will really be the nail in the coffin for HIV.”

Dr. Anthony Fauci, National Institute of Allergy and Infectious Diseases

“A vaccine, as with all viral diseases, will really be the nail in the coffin for HIV,” Fauci said.

The medical and research community isn't there yet, but it's getting close, he added.

[Read More: What's the Difference Between HIV and AIDS? »](#)

The Last 30 Years

The AIDS epidemic entered the U.S. consciousness in the early 1980s, about when the CDC published a report in June 5, 1981, detailing cases of rare lung infection in five young, previously healthy gay men in Los Angeles, [according to AIDS.gov](#). A flood of similar reports inundated the CDC, as doctors across the United States noticed similarities.

What followed was a decade riddled by an AIDS epidemic that was politically and emotionally charged. The U.S. Congress enacted the Ryan White Comprehensive AIDS Resources Emergency Act in 1990, which provided \$220 million in federal funds for HIV care and treatment services in its first year, according to [AIDS.gov](#).



Fast-forward nearly 20 years and the United Nations hosted its High-Level Meeting on HIV/AIDS in New York, recognizing milestones over the course of the 30-year pandemic.

[Read More: What Are Common HIV Symptoms? »](#)

Two Approaches to a Cure

Now, researchers have published their overview of the journey towards a vaccine for HIV.

One is an empirical approach and the other is theoretical.

The first HIV vaccine trials ran in the 1980s, and since then a tension has existed between the desire to move quickly and the point of view that thorough research would lead to success.

But HIV itself offered its own obstacles to a quick development of a vaccine — it's a resilient virus. Although HIV was first identified in 1983, according to the survey,

there still isn't a definitive vaccine.

The reason is that for most viruses, a vaccine that spurs a natural immune response is enough, Fauci said. That is not the case with HIV.

"There was a misconception early on in HIV vaccine development where we naively, and understandably, felt that if we had a vaccine, all you had to do was give it to a person to induce the natural response," Fauci said. "That was before we fully appreciated how inadequate the normal response to HIV was."

Past super viruses like smallpox were eradicated by using a relative of the virus to induce a natural response. With HIV, that's not possible. And there is a precedent for viruses like HIV that have proven difficult to make a vaccine for.

"Probably the two other major global health threats that have been very, very difficult to get a vaccine for are malaria and tuberculosis," Fauci said.

A Pair of Possible Solutions

The report outlines two promising approaches to a vaccine.

One is the empirical pox virus-vectored gp120 *env* prime with a protein boost that super charges the vaccine.

The other, a theoretical approach, involves a neutralizing antibody, bNAbs.

Both are in early states of development, but both are promising.

"There have been an incredible amount of papers published...that are really starting to open up the door and show us some of the light at the end of the tunnel," Fauci said. "I would be foolish to predict when we would get a vaccine, but I can say with absolute certainty that what we know now compared to three years ago is an enormous difference."

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Jack Neill · M. M. Robinson High School

There will never be a promising vaccine that will be completed or pass human trials as long as the drug companies are making billions off HIV drugs. There is a desperate need to get a cure for HIV yet so many hurdles and barriers to prevent the full development/life cycle of testing vaccines and treatments. Everything is done at a snails pace to the extent people get fed up, investors lose patience. It's not all about protecting patients from unethical experimentation its more about protecting profits for political donors. The many number of patients who have AIDS alone and are dying would be... See More

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Christopher Lee · Shanghai, China

vaccine is for people who are not infected. drug can still be sold to people who are infected

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James Ducan

Dr. ARIBA but have heard of his excellent work on people's life. We contacted Dr. Ariba and he started his work on her life and right now my wife is cured. she was diagnosed with Herpes And HIV and after taking Dr. Ariba Herbal medicine she was cured. You can reach him draribaspelltemple@gmail.com OR dr.aribaspelltemple@outlook.com

Website: great-drariba.webs.com

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Tom Lampron · Owner at Self-Employed

Gay men need to stop spreading it and chatting about it on craigslist and manhunt and grindr and other gay sites.... the internet if fueling it. all u see is 50 and 60 y ear olds on there looking for 18 year old... sad

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Jack Neill · M. M. Robinson High School

The problem with gay culture is the fact that it is completely hedonistic, racist, negative and narcissitic. Gay men are taught to base everything on physical apperance so there is never any substance in their relationships. Open relationships, bathouses and other such negative aspects of gay culture do not help in curtailing the spread of HIV. However, in that regards what is happening in Africa and Asia is not to do with anything Gay as they are all straight and the spread of HIV is rampant there. Condoms are not an effective solution as 50% of New HIV cases that have been reported by people who did use condoms. A vaccine would still help people infected in combating the infection not just the unprotected

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Tom Lampron · Owner at Self-Employed

Jack Neill agreed.... Good job young man, and stay safe. The people in Africa may be mostly straight but could be bi but the point you were making is HIV there is not rampant because of the gay community. I feel most of humanity is bi on some capacity. Its tough and complex.

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Tracy Belt · Lake Stevens Senior High School

Jack Neill and Tom Lampron you're both idiots. If HIV/AIDS was a gay mans problem... than ONLY gay men would have HIV/AIDS. But that is obviously not the case.

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Mohammad James

hello my name is mohammad All thanks to Dr. Idelusolutiontemple@gmail.com for curing my HIV positive to Negative, i do not have much to say but with all my life i will for ever be grateful to him and God Almighty for using Dr Idelu to reach me when i thought it is all over, today am happy with my two kids and my husband after the medical doctor have confirmed my HIV status Negative,i have never in my life believed that HIV could be cure by any herbal medicine. so i want to use this means to reach other persons who have this disease by testifying the wonderful herbs and power of Dr.Idelusolutiontemple@gmail.com that all is not lost yet, try and contact him by any means with his email: dr.Idelusolutiontemple@gmail.com you can also call his mobile +2348110858554

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