

Top HIV Science Stories of 2023

This year's most widely viewed stories focused on HIV cure and vaccine news, long-acting treatment and coexisting conditions.

December 22, 2023 By Liz Highleyman and Ian Anderson

In 2023, POZ readers showed great interest in HIV cure news, particularly cases of long-term remission. In February, researchers reported that a German man remains in remission a decade after receiving a stem cell transplant from a donor with a mutation that blocks HIV from entering cells (No. 3). Marc Franke, known as the Düsseldorf Patient, is either the second or third such case, but his doctors were cautious about declaring a cure. POZ profiled Marc in the July/August 2023 issue.

At the International AIDS Society Conference on HIV Science in July, researchers described the sixth person apparently cured after a stem cell transplant, but, in this case, he received "wild type" stem cells without the rare mutation (No. 1). In November, researchers reported on a man in the Netherlands who has maintained viral suppression for 23 years after stopping antiretroviral treatment (No. 15).

The <u>approval of the first CRISPR-based gene therapy</u>, for sickle cell disease, was one of the year's big medical breakthroughs. CRISPR is also being studied as a cure for HIV, but it is not yet clear whether it works (No. 8 and No. 20).

HIV vaccines were another popular topic, but the news was mostly disappointing. In January, the Mosaico trial was halted after early data showed that a vaccine regimen did not reduce the risk of HIV acquisition (No. 7). In December—too late to make the list—the last large vaccine trial was also stopped after interim data showed that it had little or no chance of demonstrating effectiveness. After a string of failures, researchers have gone back to the drawing board to develop more sophisticated vaccine approaches such as germline targeting (No. 6 and No. 16).

Fortunately, the news about HIV treatment was more promising. Sunlenca (lenacapavir), a twice-yearly injection, was approved in 2022 but only for treatment-experienced people with multidrug-resistant HIV. An ongoing trial shows that Sunlenca also works well for first-time treatment, but it needs a long-acting partner (No. 10). A clinical trial of Sunlenca plus islatravir, an experimental once-weekly nucleoside reverse transcriptase translocation inhibitor, resumed this spring after https://distriction.org/html a snag due to unexpected islatravir side effects (No. 17).

With effective treatment, people with HIV can have a near normal life expectancy (No. 9). As a result, much HIV research now focuses on coexisting conditions and comorbidities. Although the public health emergency ended in May, COVID-19 remains a concern, especially the persistent condition known as long COVID (No. 19.)

Some people with HIV are at high risk for sexually transmitted infections. Last year, researchers reported that taking an antibiotic after sex—known as doxyPEP—reduces the risk of chlamydia, gonorrhea and syphilis for gay and bisexual men and transgender women. But this approach does not appear to work as well for cisgender women (No. 13). An outbreak of mpox (formerly monkeypox) among gay and bi men was last year's big news. Cases have declined dramatically, but they're still occurring, and HIV-positive people can develop very severe illness (No. 4.)

Weight-loss drugs have been a dominant theme in health news since the approval of Wegovy (semaglutide) in 2021. Weight gain is a growing concern for people living with HIV (No. 12), and recent studies show that these medications appear to work well for this population. Another big story—though it didn't make this list—was data from the REPRIEVE trial showing that HIV-positive people who used a statin drug reduced their risk of heart attacks, strokes and other cardiovascular events by 35%.

The 20 POZ HIV Science News Stories that received the most page views in 2023

1. Geneva Man May Be Cured of HIV After Wild-Type Stem Cell Transplant

Posted: July 19

2. HIV Can Persist for Years in Myeloid Cells of People on Antiretroviral Therapy

Posted: March 29

3. German Man Free of HIV Nearly 10 Years After Stem Cell Transplant

Posted: February 20

4. People With Advanced HIV Can Have Very Severe Mpox

Posted: February 22

5. <u>Sleep Problems Are Common Among People With HIV</u>

Posted: April 19

6. <u>HIV Vaccine Induces T-Cell Response in First Human Trial</u>

Posted: June 9

7. Another HIV Vaccine Fails in Large Trial

Posted: January 18

8. Could Dual CRISPR Gene Editing Cure HIV?

Posted: May 15

9. People on Modern HIV Treatment Can Have a Near-Normal Life Expectancy

Posted: June 7

10. Twice-Yearly Sunlenca Works Well for Initial HIV Treatment

Posted: January 23

11. Kidney Problems Are Uncommon Among People Taking PrEP Pills

Posted: February 17

12. More Studies Explore Weight Gain Linked to HIV Treatment

Posted: March 29

13. DoxyPEP STI Prevention Works Well for Gay Men—But Maybe Not for Women

Posted: March 8

14. Latent HIV Triggers Inflammation Despite Treatment

Posted: October 11

15. Netherlands Man in Remission 23 Years After Stopping HIV Treatment

Posted: November 22

16. Where Are We Now With HIV Vaccines?

Posted: March 19

17. Study of Weekly Oral HIV Treatment Resumes

Posted: May 3

18. Women Are Missing From HIV Treatment Trials

Posted: February 15

19. Study Identifies Features of Long COVID Neurological Symptoms

Posted: May 5

20. CRISPR HIV Gene Therapy Looks Safe—but Does It Work?

Posted: November 1

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