

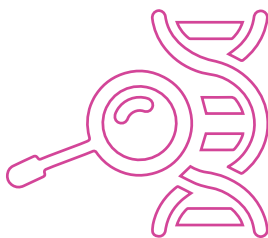
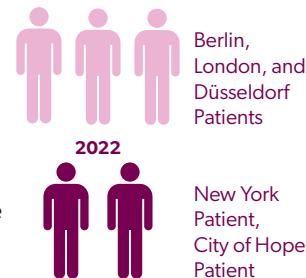
**“amfAR has played an incredible role in driving the HIV research agenda forward, particularly in HIV cure.”**

— Prof. Sharon Lewin

Director, Peter Doherty Institute of Virology and Immunology  
President, International AIDS Society

## New Cases of HIV Cure

Stem cell transplants have cured five people so far (two in 2022). Knowing that such a high-risk and costly procedure is not a scalable means of curing HIV, amfAR is committed to applying the knowledge gained from these cases to the development of alternative strategies for eliminating the HIV reservoir.



## amfAR Is Unlocking the Power of Gene Therapy to Cure HIV

In 2022, as part of its strategy to invest in technologies that might eradicate HIV, amfAR broadened support for the most promising curative approaches using gene therapy. Gene therapy, including gene editing, has the potential to overcome the body's own inability to clear the virus. As noted below, six amfAR grantees are exploring a range of gene-therapy approaches to curing HIV:

### Messenger RNA (mRNA)

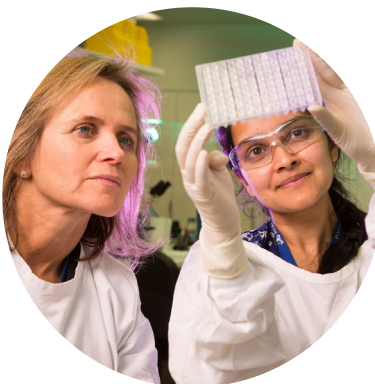
Renowned HIV researcher Dr. Sharon Lewin of the University of Melbourne is targeting HIV using the delivery system that worked so well for two very effective COVID-19 vaccines—messenger RNA (mRNA) encased in a lipid nanoparticle. This mRNA vehicle will transport an epigenome-editing tool to HIV-infected reservoir cells in order to reactivate them, making them a target for eradication. ■

### Antiretroviral therapy

Dr. Keith Jerome of the University of Washington in Seattle will determine whether antiretroviral therapy interferes with the ability of a common gene therapy tool to deliver its cargo. ■

### Stem cells

Dr. Anjie Zhen of UCLA is genetically engineering stem cells to attack HIV, and will document which types of cells they mature into and how well they clear viral reservoirs. ■



### Gene-modified immune cells

Dr. Saar Gill of the University of Pennsylvania in Philadelphia aims to stack several gene edits onto immune cells as a way to mimic cures in stem cell transplant recipients, without the need for rare CCR5 delta32 and tissue-matched donors. ■

### Gene-edited T and NK cells

Dr. Pamela Skinner of the University of Minnesota in Minneapolis is genetically enhancing the ability of T and natural killer cells to kill infected cells, and will add extra genetic engineering to ensure they home in on the densest pockets of HIV, in lymph nodes. ■

### Natural killer (NK) cells

Dr. Luis Montaner of the Wistar Institute in Philadelphia is combining engineered natural killer cells with engineered antibodies to enhance the function of each of these components of the immune response. ■

## Nurturing the Research Leaders of Tomorrow

amfAR's prestigious Mathilde Krim Fellowship is awarded to help advance the careers of talented young scientists as independent investigators and enrich the field of HIV research. The fellowships help fill the gap in support available to young scientists, who are often the ones with the boldest ideas—ideas with breakthrough potential. Fellowships were awarded to:



**Sebastian Fuchs, Ph.D.**  
University of Miami,  
Florida



**Leila Giron, Ph.D.**  
The Wistar Institute,  
Philadelphia



**Jeannette Tenthorey, Ph.D.**  
Fred Hutchinson Cancer  
Research Center, Seattle

## Stemming the Tide of a New Pandemic

amfAR's public policy team sprang into action to help lead the national response to the alarming outbreak of monkeypox (mpox). amfAR was a co-presenter with White House mpox coordinator Dr. Demetre Daskalakis during meetings with public health officials at the CDC and other government agencies. The advocacy team published a series of issue briefs and papers in leading journals to make policy recommendations, particularly at the intersection of mpox and HIV. amfAR staff were quoted widely in the press and an amfAR editorial in *The Hill* called for "a national action plan" to contain the outbreak.

## Delivering Data

amfAR remains a trusted and essential source of data that informs policymakers, public health officials, journalists, advocates, researchers, and other stakeholders about key aspects of the evolving U.S. and global HIV epidemics. The policy team maintains a series of free interactive databases that provide comprehensive, up-to-date information on global HIV programming/funding, key populations, the opioid epidemic, COVID-19, and the U.S. ending the HIV Epidemic initiative.



## Preventing the Spread of HIV

Through its longstanding partnership with the New York State AIDS Institute and as part of the New York State Department of Health's Syringe Access initiatives and Condom Program, in 2022 alone amfAR distributed:



**>4.8 million**  
male and female condoms



**847,500**  
lubricant packets



**18 million**  
clean syringes

across **35** authorized programs

## Leading on HIV/AIDS in Asia

Through its network of clinical sites across 12 countries in the Asia-Pacific region, amfAR's TREAT Asia program continued its regional leadership on HIV. In 2022, the TREAT Asia team worked on improving standards of HIV treatment and care, particularly for the estimated 130,000 children living with HIV in the Asia-Pacific. TREAT Asia also worked to expand access to treatment for co-infections such as hepatitis C and tuberculosis, improve mental health services for people living with HIV, and help young people manage the difficult transition from pediatric to adult HIV care.



## Media Footprint

**6,406,155**

total social media  
impressions



**23,600**

total mentions of  
amfAR in media

