

New research boosts search for cure, AIDS meeting told

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Fresh data from several small trials presented at an AIDS conference on Wednesday provides encouraging news in the quest for a cure for HIV, scientists said.

Giving an update in an eagerly-followed trial, researchers said an HIV-positive infant in Mississippi who was put on a course of antiretroviral drugs within a few days of birth had remained free of the AIDS [virus](#) 15 months after treatment was stopped.

In Boston, [two HIV-positive men who were given bone-marrow transplants](#) for cancer also had no detectable virus 15 weeks and seven weeks respectively after stopping AIDS drugs, a separate team reported.

Both research projects are at an early stage and should not be taken as a sign that a cure for the [human immunodeficiency virus](#) (HIV) is around the corner, researchers cautioned at a world forum of AIDS scientists in Kuala Lumpur.

Even so, they said it strengthens the motivation for pursuing the once-unthinkable goal of eradicating HIV or repressing it without daily drugs—a condition referred to as a "functional cure" or "functional remission".

"I don't actually want to use the cure word in this situation," said Timothy Henrich, from the Brigham and Women's Hospital in Boston, Massachusetts, of the bone-marrow study he is co-leading.

"But what I can say is that if these patients are able to stay without detectable HIV for at least a year, maybe a year and a half, after we stop treatment, then the chances of the virus coming back are very small," he told an AFP correspondent in Paris.

Introduced in 1996, the famous cocktail of [antiretroviral drugs](#) is a lifeline to millions with HIV.

But if the drugs are stopped, the virus rebounds from "reservoirs" among old cells in the [blood stream](#) and [body tissue](#). It then renews its attack on CD4 cells, part of the immune system's heavy weaponry.

Deborah Persaud, heading the so-called Mississippi Child investigation, said early treatment of newborns appears to offer the best hope of attacking the virus before it gets established in these reservoirs.

"Therapy in the first few days of life really curtailed the reservoir formation to the point that (it) was not established in this child and allowed treatment cessation without having the virus rebound," Persaud, an associate professor of pediatrics at Johns Hopkins Children's Center in Baltimore, Maryland, said by phone.

An estimated 34 million people are infected with HIV worldwide, and about 1.8 million die each year.

The virus was first identified in 1981, and until the advent of antiretrovirals was essentially a death sentence, progressively destroying the immune system until the patient succumbed to pneumonia or another opportunistic disease.

Three years ago, Nobel-winning French researcher Françoise Barre-Sinoussi launched a campaign for a cure—a hope bolstered by the case of a Berlin man whose HIV-count dropped to undetectable levels after a

bone-marrow transplant for leukaemia.

In his case, the transplanted cells had a genetic variant, called CCR5 delta-32, which thwarts HIV's attempts to latch on to the cell's surface and then penetrate it.

The two Boston patients did not have this mutation in their transplants.

But they were kept on antiretrovirals until the donor cells were fully established in their bodies, and this may have helped, suggested Henrich.

In two other studies presented at the International AIDS Society (IAS) conference, French researchers said patients who began treatment as soon as possible after diagnosis had the best chance of shrinking the viral reservoir and reviving their immune system.

This backs new treatment guidelines published by the UN World Health Organization and strengthens hopes for a drug-free life for HIV patients, the French National Agency for Research on AIDS (ANRS) said.

"Given the large decrease in reservoirs in these two studies, it is possible that functional remission, i.e. prolonged control of the infection without treatment, may in time be achieved in patients treated early," ANRS chief Jean-Francois Delfraissy said.

The four-day IAS meeting concluding on Wednesday is held every two years.

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