HIV: 20 YEARS OF RESEARCH

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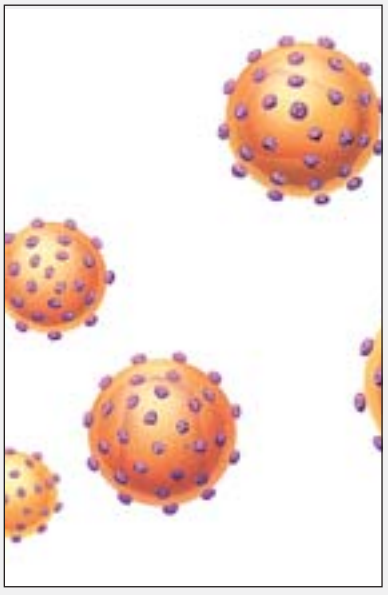

Nearly 20 years ago researchers first identified HIV, the virus responsible for AIDS. Since then, scientists have made great strides in understanding how the virus operates and developing effective therapies. But vexing challenges to better treatment and prevention remain. And with 42 million people on the planet infected with HIV (more than three million died from it last year alone), fresh insights can't come fast enough.

Scientific American has regularly covered advances in HIV research. In this anthology of articles published over the past decade, leading authorities share their expertise on how HIV wreaks havoc on the body, how the government might stem the HIV epidemic among drug users who inject, and what sorts of treatments the future might bring. Other articles discuss the hunt for HIV-resistance genes and ponder the development of an HIV vaccine. —*The Editors*

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AIDS and the Use of Injected Drugs
BY DON C. DES JARLAIS AND SAMUEL R. FRIEDMAN; SCIENTIFIC AMERICAN, FEBRUARY 1994
The AIDS epidemic continues to grow among drug users who inject. It could be curbed if governments more readily adopted effective prevention programs

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How HIV Defeats the Immune System
BY MARTIN A. NOWAK AND ANDREW J. MCMICHAEL; SCIENTIFIC AMERICAN, AUGUST 1995
A plausible hypothesis suggests the immune devastation that underlies AIDS stems from continuous - and dangerous - evolution of the human immunodeficiency virus in the body

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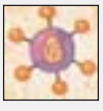
The African AIDS Epidemic
BY JOHN C. CALDWELL AND PAT CALDWELL; SCIENTIFIC AMERICAN, MARCH 1996
In parts of sub-Saharan Africa, nearly 25 percent of the population is HIV-positive as a result of heterosexual transmission of the virus. Could lack of circumcision make men in this region particularly susceptible?

20 
In Search of AIDS-Resistance Genes
BY STEPHEN J. O'BRIEN AND MICHAEL DEAN; SCIENTIFIC AMERICAN, SEPTEMBER 1997
A genetic trait that protects against AIDS has now been uncovered, and others are emerging. The findings open entirely new avenues for developing preventives and therapies

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Improving HIV Therapy
BY JOHN G. BARTLETT AND RICHARD D. MOORE; SCIENTIFIC AMERICAN, JULY 1998
Today's optimal treatments can work magic, but they are costly and onerous and do not work for everyone. What might the future bring?

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Hope in a Vial
BY CAROL EZZELL; SCIENTIFIC AMERICAN, JUNE 2002
Will there be an AIDS vaccine anytime soon?