

# SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication  
Volume 149, No. 23, June 8, 1996

Donald R. Hartless	Publisher
Julie Ann Miller	Editor
Blair Burns Potter	Managing Editor
Dan Skripkar	Production/Design Director
David Lindley	Associate Editor
Janet Raloff	Senior Editor
Ron Cowen	Environment/Policy
Bruce Bower	Astronomy
Richard Lipkin	Behavioral Sciences
Richard Monastersky	Chemistry/ Materials Science
John Travis	Earth Science
Kathleen Fackelmann,	Biology
Steve Sternberg	Biomedicine
Tina Adler	Life Sciences
Ivars Peterson	Mathematics/Physics
Damaris Christensen	Editorial Assistant
Cait Anthony	Books/Advertising

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$49.50 for 1 year or \$88.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, D.C. 20036. Second-class postage paid at Washington, D.C., and additional mailing office. **POSTMASTER:** Send address changes to SCIENCE NEWS, P.O. Box 1925, Marion, Ohio 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided. Copyright © 1996 by Science Service, Inc. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A. on recycled paper. ♻️ Reproduction of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

**Editorial and Business Offices:**  
1719 N St. N.W., Washington, D.C. 20036  
202-785-2255; [scinews@scisvc.org](mailto:scinews@scisvc.org)

**Advertising Representative:**  
Lewis Edge & Associates, Inc.  
366 Wall St., Princeton, N.J. 08540  
609-683-7900

**Subscription Department:**  
P.O. Box 1925, Marion, Ohio 43305  
For new subscriptions only, call 1-800-247-2160.  
For customer service, call 1-800-347-6969.

## Letters

### Perpetuating myths about AIDS?

"AIDS Update '96" (SN: 3/23/96, p. 184) refers to blood samples taken from "HIV-infected homosexual or bisexual men." I fail to see how the sexual orientation of the subjects affects the research. The statement does, however, perpetuate the myth that AIDS is a concern only for certain "at-risk communities." This myth is not only misleading, it is downright dangerous.

David Assemany  
Royal Oak, Mich.

*The statement is a description of the sample population, a common practice in SCIENCE NEWS. Nonetheless, your point about the danger of the myth is well taken.* — The Editors

**I take exception** to the statement that a single case of a chimpanzee developing AIDS "proves HIV causes AIDS."

Most chimpanzees that have been infected with HIV have not been inoculated with pure

### This Week

- 356 New Study May Redefine High-Risk Sex
- 356 'Estrogen' pairings can increase potency
- 357 Boosting cryptography's role in security
- 357 Gene therapy strategy repairs RNA, not DNA
- 358 Hubble telescope reveals dancing Crab
- 358 Climate modelers: Go talk to the trees
- 359 Wine making's roots age in stained jar
- 359 A shrimpy find: Communal crustaceans

### Research Notes

- 365 Astronomy
- 365 Biomedicine
- 367 Science & Society

### Articles

- 360 When Science and Beliefs Collide
- 362 The Great American Quakes

Cover: During the winter of 1811–1812, three massive earthquakes struck near the town of New Madrid, Mo., altering the landscape enough to redirect the Mississippi River. By piecing together historical accounts and new geologic information, researchers are now beginning to reconstruct where these shocks originated. (Illustration: State Historical Society of Missouri, Columbia).



### Departments

- 354 Books
- 355 Letters

Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921 to increase the public understanding of science. Through its youth programs, it administers the International Science and Engineering Fair and the Science Talent Search for the Westinghouse science scholarships.

**Board of Trustees** — *Chairman*, Dudley Herschbach; *Vice Chairman*, Gerald F. Tape; *Secretary*, David A. Goslin; *Treasurer*, Willis Harlow Shapley; Joseph W. Berg Jr.; Robert W. Fri; J. David Hann; Shirley M. Malcom; C. Bradley Moore; Ben Patrusky; H. Guyford Stever; Sanford J. Ungar; Deborah P. Wolfe.

**Honorary Trustees** — *Chairman Emeritus*, Glenn T. Seaborg; Edward Bliss Jr.; Bowen C. Dees; Elena O. Nightingale; O.W. Riegel; John Troan.

cultures of HIV, but rather with blood, lymphocytes, or semen from AIDS patients. Every AIDS patient has multiple viral and bacterial infections that can cause immune suppression independent of HIV and that are known to be synergistic with HIV in cell cultures. Thus, it is highly probable that most chimpanzees were infected not only with HIV, but with some mix of cofactor infections as well. Coinfections may be very important, since some diseases require combinations of infectious agents.

In order to conclude that HIV is the necessary and sufficient cause of AIDS, one must demonstrate that HIV and only HIV was transmitted to the chimpanzee that developed AIDS.

So far, there is no evidence that non-HIV infections have been controlled for at all.

Robert S. Root-Bernstein  
Associate Professor of Physiology  
Michigan State University  
East Lansing, Mich.

*Contrary to Dr. Root-Bernstein's assumption,*

*the chimpanzee that developed AIDS was inoculated with tissue-culture-grown HIV; it received only HIV and was not exposed to blood or semen from an AIDS patient. Moreover, the chimpanzee with AIDS was exposed experimentally only to HIV; its exposure to any other environmental agent would have been the same as that of the 200 other chimpanzees in our general colony. The animal was not treated with potentially cytotoxic drugs and was not a "drug abuser" (purported causes of AIDS offered by skeptics of the HIV theory). The animal received only HIV, developed persistent infection, had progressive loss of CD4 cells over time, and had a high viral load (of HIV-1) during terminal stages of disease.*

*What more could be needed to convince even the staunchest skeptic that HIV is the cause of AIDS?*

Harold M. McClure  
Associate Director for Research Resources  
Yerkes Regional Primate Research Center  
Emory University  
Atlanta, Ga.