

# SCIENCE NEWS®

The Weekly Newsmagazine of Science

A Science Service Publication  
Volume 139, No. 11, March 16, 1991

E. G. Sherburne Jr.	Publisher
Patrick Young	Editor
Laurie Jackson	Managing Editor
Janice Rickerich	Production/Design Director
Janet Raloff	Senior Editor Environment/Policy
Bruce Bower	Behavioral Sciences
Elizabeth Pennisi	Chemistry/ Materials Science
Richard Monastersky	Earth Sciences
Ron Cowen	General Science
Carol Ezzell,	Life Sciences/ Biomedicine
Kathy A. Fackelmann	
Ivars Peterson	Mathematics/Physics
Jonathan Eberhart	Space Sciences
Wendy Gibbons, Tim Walker	Science Writer Interns
Liz Marshall	Books/Resource Manager
Donald R. Harless	Advertising/Business Manager

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$34.50 for 1 year or \$58.00 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, 231 West Center Street, Marion, OH 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided.

Copyright © 1991 by Science Service, Inc. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A.

**Editorial and Business Offices:**  
1719 N St., N.W., Washington, D.C. 20036  
(202-785-2255)

Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

**Subscription Department:**  
231 West Center St., Marion, OH 43305  
For new subscriptions only, call 1-800-247-2160.

## Letters

### Next best thing to being there?

One project not covered in your update on NASA's plans for 1991 ("Space Sciences '91," SN: 1/12/91, p.28) is an ambitious experiment scheduled for early April, to be conducted onboard the shuttle Atlantis. The Shuttle Amateur Radio Experiment includes plans to bring space science into the classroom.

All five astronauts on the Atlantis crew are licensed amateur radio operators. The experiment will include contacts by radio with a number of schools, live television and digital communications with ham radio operators around the world.

More than 500,000 ham radio operators in the United States and more than 2 million worldwide will have the opportunity to talk to the shuttle directly. A recent change to the FCC rules (effective Feb. 14) created a new entry-level license for ham radio, dropping the traditional requirement to learn Morse code first.

Interested readers should write to the Amer-

### This Week

- 164 Christmas Quake Presents Geologic Gift
- 164 Plant chloroplasts evolved more than once
- 165 Job stress: A risk for pregnant workers?
- 165 Wettable latex makes for drier surroundings
- 166 What a gas! First star in a new class
- 166 Coherent light from a field of microlasers
- 166 Aspirin may decrease risk of colon cancer
- 167 Human brain reveals the anatomy of pain
- 167 Unexpected images of meteorite strikes

### Research Notes

- 175 Agriculture
- 175 Biomedicine

### Articles

- 168 Fuzzy Science
- 172 Bloodsuckers Reconsidered

Cover: This 1827 lithograph shows a physician placing leeches on a patient's neck in an age-old "treatment" that typically extracted about a liter of blood. Though the practice fell from favor around the turn of the century, the primitive bloodsuckers may yet make their mark in modern pharmacology. Researchers have genetically engineered a compound nearly identical to an ingredient in leech saliva, and preliminary experiments suggest it holds promise as a potent blood-thinning drug. (Lithograph by Louis Bolilly/Yale Medical Historical Library)



### Departments

- 162 Books
- 163 Letters

**Science Service** Institution for the public understanding of science founded 1921; a nonprofit corporation.

**Board of Trustees** — *Chairman*, Glenn T. Seaborg; *Vice Chairman*, Gerald F. Tape; *Treasurer*, Willis Harlow Shapley; *Joseph W. Berg Jr.*; *Robert W. Fri.*; *David A. Goslin*; *J. David Hann*; *Milton Harris*; *Leon M. Lederman*; *Shirley M. Malcom*; *Elena O. Nightingale*; *Ben Patrusky*; *H. Guyford Stever*; *Deborah P. Wolfe.*

**Honorary Trustees** — *Edward Bliss Jr.*; *Bowen C. Dees*; *O. W. Riegel*; *John Troan.*

**President:** E. G. Sherburne Jr.; **Business Manager:** Donald R. Harless.

ican Radio Relay League, 225 Main St., Newington, CT 06111.

*Tom Frenaye*  
*Director, American Radio Relay League*  
*West Suffield, Conn.*

### Advice to university scientists

Physicist Leon Lederman has discovered that 250 university science researchers want more federal money for university science research ("Double science funds, Nobel laureate urges," SN: 1/12/91, p.22).

For this he went to college?

I'll save someone the cost of three more mail surveys with the prediction that 250 military officers will want an increase in the defense budget, 250 social workers will want more money for social work, and 250 artists with National Endowment for the Arts grants will want an increase in NEA grant money.

I would suggest to the university science community, or at least that portion dependent on federal funding, that a diverse and vigorous scientific research program will result not from new taxes and funding (it won't happen)

but from a shift of emphasis away from gargantuan projects such as the Superconducting Super Collider and Space Station, and toward a broader array of endeavors that do not come with mind-numbing price tags.

*Frederick Sands*  
*Woodinville, Wash.*

### 'Desecration of art'

The use of the Venus de Milo to represent heart disease on your Jan. 19 cover shows extreme insensitivity. It's hard to understand how any prestigious magazine could publish such a desecration of art.

*Carl A. Benz*  
*Silver Spring, Md.*

**Address communications to:**

**Editor, SCIENCE NEWS**  
1719 N St., NW  
Washington, D.C. 20036

**Please limit letters to 250 words.**  
**All letters subject to editing.**

MARCH 16, 1991

163