

# SCIENCE NEWS®

The Weekly Newsmagazine of Science

A Science Service Publication  
Volume 141, No. 21, May 23, 1992

Alfred Scott McLaren	Publisher
Patrick Young	Editor
Laurie Jackson	Managing Editor
Vaughan	Editor
Janice Rickerich	Production/Design Director
Blair Burns Potter	Associate Editor
Janet Raloff	Senior Editor
Ron Cowen	Environment/Policy
Bruce Bower	Astronomy
Elizabeth Pennisi	Behavioral Sciences
Richard Monastersky	Chemistry/ Materials Science
Carol Ezzell,	Earth Sciences
Kathy A. Fackelmann	Life Sciences/ Biomedicine
Ivars Peterson	Mathematics/Physics
Larry Norland	Editorial Assistant
Michael Stroh	Science Writer Intern
Connie Williams	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 \$39.50 for 1 year or \$68.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, DC 20036. Second-class postage paid at Washington, DC, 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 © 1992 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, DC 20036  
(202-785-2255)  
Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

**Subscription Department:**  
231 West Center Street, Marion, OH 43305  
For new subscriptions only, call 1-800-247-2160.  
For customer service, call 1-800-347-6969.

## Letters

### Letters on letters

Richard S. Nicholson of the American Association for the Advancement of Science (Letters, SN: 3/28/92, p.195) errs when he suggests that SOLSTICE: AN ELECTRONIC JOURNAL OF GEOGRAPHY AND MATHEMATICS does not transmit tables and figures. SOLSTICE is typeset using TeX, and it is the TeX file that is transmitted, complete with typeset tables as well as complicated mathematical notation. Indeed, SOLSTICE has even run (in addition to scientific tables) an occasional crossword or word search puzzle simply to suggest this perhaps unexpected capability. It also transmits some figures — any that can be set using TeX. SOLSTICE does claim to disseminate scientific results in an electronic form, and not only does it claim to do so, it does so.

One might hope that representatives of a society that claims to promote the advancement of science would be more interested in promoting the general idea of electronic jour-

### This Week

- 340 Gene-Duplicating Proteins Isolated
- 340 Mystery gamma rays yield nearest pulsar
- 341 Intelsat rescue saga may alter training
- 341 DNA solves AIDS epidemiological whodunit
- 342 Earthquake shakes up nightmare frequency
- 342 Genital-wart virus linked to penile cancer
- 343 A smoke screen for greenhouse warming?
- 343 Young scientists honored for prize work

### Research Notes

- 351 Behavior
- 351 Biomedicine

### Articles

- 344 Exploring the Extreme Ultraviolet

Cover: The sun (yellow dot) and surrounding stars reside in a local hole, or bubble, in space — a relatively gas-free region containing little of the patchy fog of hydrogen atoms that bathes most of our galaxy and readily absorbs extreme-ultraviolet radiation. Thus, astronomers expect the Extreme Ultraviolet Explorer, a NASA satellite scheduled for launch in early June, to detect thousands of sources of extreme-ultraviolet light within the hole. (Photo: NASA)



- 348 Renegade Tumors

### Departments

- 338 Books
- 339 Letters

**Science Service**, a nonprofit corporation founded in 1921, gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of disadvantaged groups.

**Board of Trustees** — *Chairman*, Glenn T. Seaborg; *Vice Chairman*, Gerald F. Tape; *Secretary*, David A. Goslin; *Treasurer*, Willis Harlow Shapley; *Joseph W. Berg Jr.*; *Robert W. Fri*; *J. David Hann*; *Dudley Herschbach*; *Shirley M. Malcom*; *Elena O. Nightingale*; *Ben Patrusky*; *H. Guyford Stever*; *Sanford J. Ungar*; *Deborah P. Wolfe*. **Honorary Trustees** — *Edward Bliss Jr.*; *Bowen C. Dees*; *O.W. Riegel*; *John Troan*.

**President:** Alfred Scott McLaren; **Vice President and Business Manager:** Donald R. Harless.

nals than they are in worrying about who is first.

*Sandra Lach Arlinghaus*  
Director, Institute of Mathematical Geography  
Founding Editor and Publisher, SOLSTICE  
Ann Arbor, Mich.

**Curt Wiederhielm** (Letters, SN: 4/4/92, p.211) attempted to correlate the K-T meteorite impact near the Yucatán and possible volcanic eruptions on the other side of the Earth with a type of head injury called the contrecoup injury. I confess I know very little about geology, but as an emergency physician I understand the mechanism of this type of blunt head trauma relatively well, and I feel I need to clear up the inaccurate information presented in this analogy.

The brain is enclosed by the skull and is bathed in cerebrospinal fluid, in which it is cushioned and actually floats. When the head strikes a hard object and the skull comes to a rapid stop (deceleration), the brain continues

briefly to travel in the same direction inside the skull box, striking the inner aspect of the skull and becoming bruised. This is the so-called coup injury. It then can bounce backward against the opposing inner skull table (contrecoup injury), producing bruising on the opposing side. This has nothing to do with a "shock wave" or specific geometry of the skull, but the fact that the brain is freely movable to a degree inside a hard skull container. On a more familiar level, it is like the unrestrained driver who collides with an object and snaps forward, then backward, before coming to a rest inside the vehicle.

*Petra Illig-Workman*  
Kent, Wash.

### CORRECTION

In "Pig intestine yields versatile tissue graft" (SN: 4/18/92, p.246), the acronym SIS stands for small intestinal submucosa, not small intestinal mucosa.