

SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication
Volume 149, No. 4, January 27, 1996

Alfred Scott McLaren Publisher
Julie Ann Miller Editor
Blair Burns Potter Managing Editor
Dan Skripkar Production/Design Director
David Lindley Associate Editor
Janet Raloff Senior Editor
Environment/Policy
Ron Cowen Astronomy
Bruce Bower Behavioral Sciences
Richard Lipkin Chemistry/
Materials Science
Richard Monastersky Earth Science
John Travis Biology
Kathleen Fackelmann,
Lisa Seachrist Biomedicine
Tina Adler Life Sciences
Ivars Peterson Mathematics/Physics
Damaris Christensen Editorial Assistant
Cait Anthony 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 \$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. ♻️ Replication 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

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.

This Week

- 52 Two Extrasolar Planets May Hold Water
- 52 Debating BST 'til the cows come home
- 53 Science Talent Search names 40 finalists
- 54 First mammal born from lab-grown egg cell
- 54 The loitering El Niño: Greenhouse guest?
- 55 Beta carotene proves 'no magic bullet'
- 55 More early findings from Galileo probe

Research Notes

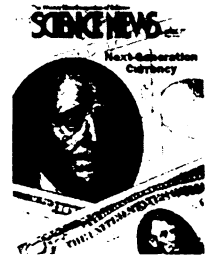
- 63 Astronomy
- 63 Earth Science

Articles

- 56 Shocking Rhythms
- 58 New Greenbacks
Cover: As the Federal Reserve begins to circulate newly designed \$100 bills, SCIENCE NEWS examines the process of currency redesign and U.S. efforts to thwart high-tech counterfeiters.
- 61 Olestra: Too Good To Be True

Departments

- 50 Books
- 51 Letters



Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921. It 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 underrepresented groups. Through its Youth Programs it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students*.

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, Elena O. Nightingale; Ben Patrusky; Peter H. Raven; H. Guyford Stever; Sanford J. Ungar; Deborah P. Wolfe. **Honorary Trustees** — *Chairman Emeritus*, Glenn T. Seaborg; Edward Bliss Jr.; Bowen C. Dees; O.W. Riegel; John Troan.

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

Letters

Ozone assessment found wanting

"Ozone on Trial" (SN: 10/7/95, p. 238) reports on an adversarial congressional hearing but fails to provide the balance your readers are entitled to.

The story quotes as if it were true an attempt by Congresswoman Lynn Rivers to impugn my credentials as a witness but does not record my response. It quotes me telling the panel that Robert Watson's presentation was misleading but does not explain how or why. I testified that there is no credible evidence for a long-term, increasing trend of ultraviolet radiation.

The story refers to several scientists skeptical about ozone depletion but identifies only "statisticians for some CFC producers." It claims that these statisticians now agree with Watson's ozone assessment panel. Nowhere does the story point out that their employer, Allied-Signal, like other former CFC producers, is now in the lucrative business of selling

CFC substitutes.

SCIENCE NEWS should inform its readers of the substantive scientific controversies that should be settled before policy actions that would waste upward of \$100 billion are put into effect. Regrettably, the much-touted *International Assessment of Ozone Depletion: 1994* does not squarely address dissenting views.

*S. Fred Singer
President*

*The Science & Environmental Policy Project
Fairfax, Va.*

Vitamin A link to homeobox genes?

With regard to the article "Excess Vitamin A Causes Birth Defects" (SN: 10/14/95, p. 244), it has been known for several years that retinoic acid, a metabolite of vitamin A, seriously affects the expression of homeobox genes, which control the development of the head, face, and central nervous system. Oddly enough, the effects in vitro and in vivo are markedly different.

The homeobox genes are the same genes

referred to in "Nobel prize for genes that shape embryos" (p. 246).

*Gordon Serjak
North Miami, Fla.*

New theory conceived

"Secret to birds' mating score: Speedy sperm" (SN: 10/7/95, p. 231) might go a long way toward explaining why supposedly "infertile" human couples suddenly have kids after they adopt a child.

These couples often attribute the event to becoming more relaxed. Instead, maybe overly anxious human couples try to have sex too often and too soon before the woman's fertile period, and the man's sperm count is too low by the time the woman ovulates.

Once the couple again engages in sexual intercourse on a sporadic basis, the man's sperm count is much higher. Consequently, the sperm are speedier and hardier, leading to a greater chance of conception.

*Richard Oldrieve
Westlake, Ohio*