

SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication
Volume 144, No. 7, August 14, 1993

Alfred Scott McLaren	Publisher
Patrick Young	Editor
Laurie Jackson	Managing
Vaughan,	Editors
Blair Burns Potter	
Janice Rickerich	Production/Design Director
Greg W. Pearson	Associate Editor
Janet Raloff	Senior Editor Environment/Policy
Ron Cowen	Astronomy
Bruce Bower	Behavioral Sciences
Richard Lipkin	Chemistry/ Materials Science
Richard Monastersky	Earth Sciences
Kathy A. Fackelmann,	Life Sciences/ Biomedicine
Elizabeth Pennisi	
Ivars Peterson	Mathematics/Physics
Larry Norland	Editorial Assistant
Bernice Wuethrich	Science Writer Intern
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 \$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, P.O. Box 1925, Marion, OH 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided.

Copyright © 1993 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:
P.O. Box 1925, Marion, OH 43305
For new subscriptions only, call 1-800-247-2160.
For customer service, call 1-800-347-6969.

Letters

Milk banking's benefits for babies

In his letter "Making the case for formula" (SN: 6/19/93, p.387), Gerald Keep urges further formula research on behalf of babies who cannot be breastfed. There is an alternative for them: milk banks.

Like blood banks, milk banks give life and health to those whose natural source of the banked product is not available. Unlike blood, milk can be pasteurized to ensure its safety. Blood banks exist because there is no equivalent of human blood. There is also no equivalent of human milk. As one example, human milk has over 300 known components; artificial substitutes include only about one-fifth of those, in very approximate forms and amounts.

The World Health Organization and UNICEF rank acceptable infant feeding as follows: first, breastfeeding; second, the mother's own milk, expressed for her child; third, milk from another human mother; and fourth, artificial

This Week

- 100 Drugs, Diet Ease Mild Hypertension
- 100 Chemical analysis reduced to a wee chip
- 101 Crisis threatens most university reactors
- 102 Weighing the causes of severe depression
- 102 Mars: Prelude to an orbit
- 103 Ancient eruption tapped the Earth's depths
- 103 Sick plant? Take two aspirin and . . .
- 108 Higher risk of Alzheimer's linked to gene

Research Notes

- 109 Biochemistry
- 109 Chemistry
- 111 Earth Science
- 111 Technology

Articles

- 104 A Year in the Life of Mars

Cover: Mars Observer, carrying a diverse package of scientific instruments, will probe the surface and atmosphere of Mars for at least a Martian year (687 Earth days). It is the first U.S. spacecraft to visit the Red Planet since the 1976 Viking missions. (Image: NASA/JPL)

Departments

- 98 Books
- 99 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*, 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; Peter H. Raven; 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.

baby milk. No baby deserves fourth best, whatever the circumstances.

Formula research dollars would be better spent establishing more milk banks to guarantee that every baby receives human milk.

Diane Wiessinger
Lactation Consultant
Ithaca, N.Y.

I understand Mr. Keep's perspective and the pain and outrage he must feel when formula, the food he and many others must feed their babies, is shown to be sadly inferior to breast milk.

But I submit that further research on how to make a better formula is not the most logical way to go. Most of the necessary research has already been done into the proper protocols for making banked human milk safe: All that remains is the clear thinking required to see the solution in the first place.

Human milk is the best milk for human babies. Adopted babies, orphans, and babies

of mothers who cannot themselves breastfeed deserve human milk too. That is the bottom line.

Sandra Yates
North Vancouver, British Columbia

PI-in-a-box: Joint MIT, Ames effort

Thank you for mentioning Principal-Investigator-in-a-Box in your article "AI at work: From prisons to autos to space" (SN: 7/17/93, p.37). As chief scientist for the project, I would like to point out that PI-in-a-box is actually a collaboration between NASA's Ames Research Center and the Man-Vehicle Laboratory in the Center for Space Research at the Massachusetts Institute of Technology. Much of the software and all of the special hardware required for the project were designed, fabricated, and tested at MIT.

Lyman R. Hazelton
Massachusetts Institute of Technology
Cambridge, Mass.

AUGUST 14, 1993

99