

SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication
Volume 145, No. 19, May 7, 1994

| | |
|---|-------------------------------------|
| Alfred Scott McLaren | Publisher |
| Patrick Young | Editor |
| Blair Burns Potter | Managing Editor |
| Dan Skripkar | 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 |
| Tina Adler | General Science |
| Kathy A. Fackelmann, Elizabeth Pennisi | Life Sciences/ Biomedicine |
| Ivars Peterson | Mathematics/Physics |
| Larry Norland | Editorial Assistant |
| Damaris Christensen | 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 © 1994 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

Determining cancer causes

"Non-smoking-related cancers on rise" (SN: 2/12/94, p.102) raised a question in my mind about the methodology used by the authors. Essentially, they attempted to adjust for the effects of smoking by dividing the data into smoking-related cancers and non-smoking-related cancers. They defined smoking-related cancers as those of the mouth, larynx, lung, pharynx, and esophagus. All other cancers were defined as non-smoking-related. This methodology places smokers in both groups and is a valid approach only if smoking is not associated with any other forms of cancer.

I read in the Feb. 14 TIME a summary of a survey of 170,000 people that showed "smokers have up to twice the risk of developing colon cancer as non-smokers." How can these two studies both be valid?

This also raises the possibility that other "non-smoking-related" cancers may be related to smoking. Assuming the data were

This Week

- 292 Team Sieving Cracks a Huge Number
- 292 Neurons may take panoramic view of sounds
- 293 Scientists find gene for clotting disorder
- 293 Watching polymers wend their way along
- 294 Illnesses of Gulf war vets stump experts
- 294 Cigarettes: Are they doubly addictive?
- 295 Apo E in Alzheimer's stunts nerve growth
- 295 Temperatures on the rise in deep Atlantic

Research Notes

- 302 Behavior
- 303 Biology
- 303 Physics

Articles

- 296 Designer Fats
Cover: Carrageenan and cellulose gels often help make up for the lack of fat in low-fat products such as vanilla ice cream. But companies are now trying to engineer fats themselves to make them less sinful. (Photo: Rosse and Associates)
- 298 Are 'Dirty Snowballs' Made of Smaller Ones?
- 300 Waves from a Parallel Universe

Departments

- 291 Letters
- 302 Books



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.

available, shouldn't the authors have at least "checked" their results by also dividing their data into strictly smoking and nonsmoking categories and determining whether the results were similar?

Joseph R. Visalli
Schodack, N.Y.

Say Debra Lee Davis and her team: "The category of smoking-related cancers we used included all cases of lung cancer and oral cancers, although not all of these cases are smoking-related. Because the National Cancer Institute data we analyzed do not include information on smoking, we could not divide the data in smoking and nonsmoking categories to develop more precise estimates of the fractions of various cancers associated with smoking.

"New cases of non-smoking-related cancer have increased steadily over this century in successive birth cohorts. Those with the greatest increase in non-smoking-related cancer, namely, men of the Baby Boom generation, have neither lived nor smoked long enough to develop smok-

ing-related colorectal cancer, which has been found in one recent study to be elevated only in men who had smoked 40 years or more."

— J.A. Raloff

Gene patents: Patently absurd?

Mr. Daly would grant patent rights to scientists and researchers who identify genetic fragments because they spent a lot of time and money investigating them ("Righting patent wrongs?" SN: 2/19/94, p.115). This is rubbish. It would be like granting James Watt a patent on the concept of steam or allowing Isaac Newton to patent gravity.

Kenneth Mitchell
Citrus Heights, Calif.

CORRECTION

In "Scrambled Earth" (SN: 4/9/94, p.235), the article refers to relatively cool mantle rocks slowing down seismic waves. It should have said that cooler rocks speed up seismic waves.

MAY 7, 1994

291