THIS WEEK

IIIIO WEEK	
Soviet science boycott	116
Sighting Saturn	116
Lead standard upheld	116
Guide to longer life	117
Short life for Mexican panda	117
Pain killer causes kidney problems	117
Transfer factor prevents disease	118
Estrogen receptors and cancer	118
Low-level radiation in China	118
Measles: Multiple sclerosis trigger	118
RESEARCH NOTES	
Biology	122
Biomedicine	122
Earth Sciences	124
Space Sciences	124
ARTICLES	
Calcium's Partner	119
Cancer Prevention	123
Medical Mistakes	125
DEPARTMENTS	
Science on the Air	115

COVER: A single protein throughout the plant and animal kingdoms has been found to bind calcium and participate in the wide variety of calcium-dependent processes. A flourescent dye bound to an antibody allows scientists observe the distribution of that protein in cells. See p. 19 (Photo: Anthony R. Means, Baylor College of Medicine)

Publisher E. G. Sherburne Jr. Editor Senior Editor and **Physical Sciences Behavioral Sciences Biomedicine** Chemistry **Earth Sciences Life Sciences** Policy/Technology **Space Sciences Contributing Editors**

Dietrick E. Thomsen Joel Greenberg Joan Arehart-Treichel Linda Garmon Susan West Iulie Ann Miller

Jonathan Eberhart

Lynn Arthur Steen

lanet Raloff

Robert I. Trotter

(mathematics) Kendrick Frazier John H. Douglas Michael A. Guillen Joanne Silberner Judy Klein Dale Appleman Angela Musick Jane M. Livermore **Donald Harless** Scherago Associates 1515 Broadway New York, N.Y. 10036 Fred W. Dieffenbach,

Sales Director

Science Writer Intern **Assistant Editor** Art Director Assistant to the Editor Books **Business Manager** Advertising

Copyright © 1980 by Science Service, Inc., 1719 N St., N.W., Washington D.C. 20036. Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

Editorial and Business Offices 1719 N Street, N.W. Washington, D.C. 20036

Subscription Department 231 West Center Street Marion, Ohio 43302

Subscription rate: 1 yr., \$19.50; 2 yrs., \$47.00; 3 yrs., \$47.50. (Add \$3 a year for Canada and Mexico, \$4 for all other countries.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code. For new subscriptions only call: (1) 800-247-2160.

Printed in U.S.A. Second class postage paid at Washington, D.C. Title registered as trademark U.S. and Canadian Pat-

Published every Saturday by SCIENCE SERVICE, Inc. 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255) ISSN 0036-8423

SCIENCE ON THE AIR

SCIENCE NEWS prints the latest written word of scientific developments and noteworthy news. We've set this space aside to inform our readers of programs of scientific interest that are scheduled on television. Check your local listings for exact times.

- Sept. 3 (PBS) "When Rivers Run Dry" is a review of the history and ecology of water in New Mexico and Arizona from 300 B.C. to the present.
- Sept. 15 (PBS) "Joan Robinson: One Woman's Story" is a powerful documentary on living with cancer. It describes one woman's 22-month battle with her illness. It will be followed by the 30minute show "Joan Robinson Epilog: Five Years Later."
- Sept. 15 (PBS) A "Nuclear Power" debate on Advocates in Brief focuses on the desirability of phasing out nuclear power as an energy source and whether we should regulate it.
- Sept. 17 (PBS) "Wood is Too Good to Burn" looks at the new uses being made of this renewable resource. It examines new methods of growing trees faster and illustrates new products from wood.
- Sept. 22 (PBS) National Geographic Society - "The Invisible World" takes advantage of advances in technology to present a look at microscopic life in minute
- Sept. 25 (PBS) "To Say I Am" focuses on the latest technology aiding the estimated half-million U.S. children and adults unable to communicate either by voice or sign language.
- (PBS) The Body in Question: This 13part series on health and the human body is hosted by Jonathan Miller, noted British physician, writer, actor, lecturer and theatre director. Filmed on locations throughout the world, the series uses special effects, art, architecture, historical recreations and live experiments to focus on personal, historical and cultural patterns of illness. The first show in the series. "Naming of Parts" (Sept. 30), postulates that our ignorance of basic physiology leads to unusual attitudes toward our own insides. Using a variety of media, Miller explains what happens when we fall ill.

- (PBS) Cosmos: This is a 13-part series, created and hosted by Carl Sagan devoted to astronomy and space exploration in the broadest possible human context. In the premiere episode, "The Shores of the Cosmic Ocean" (Sept. 30), Sagan employs a "spaceship of the imagination" to take viewers on a simulated, scientifically accurate journey from the edge of the known universe 8 billion light years away.
- (PBS) NOVA: Sept. 2 "Termites to Telescopes" is a commentary by Philip Morrison, Institute Professor and professor of physics at Massachusetts Institute of Technology, on the nature of civilization; Sept. 9 "The Insect Alternative" looks at the problems created by chemical pesticides; Sept. 16 "Race for Gold" is the first part of a two-part look at science and sports. The focus of this segment is the controversy at the 1976 Olympics over possible misuse of drugs by the East German athletes to improve their performances; Sept. 23 "All Part of the Game" looks at sports medicine, a new medical specialty that promises to prevent and cure many sports-related problems; Sept. 30 "The Pink and the Blue" is the season premiere, a look at contemporary boys and girls—the children raised after a decade of sex role redefinition. Included are looks at the traditional and subtle ways in which sexual stereotypes are formed; interviews are conducted with parents and teachers who deny that they discriminate between the sexes — until they view film footage of themselves.
- (PBS) Here's to Your Health: Sept. 6 "Drug Interaction" explains what happens when a drug enters the body and gives advice on how to prevent dangerous drug interactions; Sept. 13 "Growing Up: The Early Years" is the first half of a twopart program on pediatrics. It features a visit to the pediatric clinic and a discussion of ways to help children cope with divorce; Sept. 20 "Growing Up: The Adolescent Years," the second half, examines the difficulties adolescents have coping with contemporary life.

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

Board of Trustees — President, Glenn T. Seaborg, University of California, Berkeley, CA; Vice President, Gerald F. Tape, Associated Universities, Washington, DC; Teosure; Milton Harris, Washington, DC; Secretary, Julius Duscha, Washington Journalism Center, Washington, DC; Allen V. Astin, Bethesda, MD; Joseph W. Berg Jr., National Research Council, Washington, DC; Edward Bliss Jr., Newburyport, MA; Bowen C. Dees, The Franklin Institute, Philadelphia, PA; David A. Goslin, National Research Council, Washington, DC; Elizabeth Neufeld, National Institutes of Health, Bethesda, MD; O. W. Riegel, Glasgow, VA; Aaron Rosenthal, Washington, DC; Edward W. Scripps II, Edward W. Scripps ITust, Carson City, NV; John Troan, Pittsburgh Press, Pittsburgh, PA; Deborah P. Wolfe, Queens College of City University of New York, Flushing, Ll., NY

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless; Things of Science: Ruby Yoshioka

AUGUST 23, 1980

115