

	603 This Week in <i>Science</i>
Editorial	605 SOS, Save Our Science
Policy Forum	607 A Proposed Structure for an International Convention on Climate Change: W. A. NITZE
Letters	611 Discordant Observations: H. ARP ■ Ph.D. Supply and Demand: D. S. ZINBERG; J. W. MOORE; R. R. HAKE; C. REED; Endangered Species Biology: G. B. RABB AND R. LACY ■ AI: Thousands of Ants?: P. W. SHERWOOD ■ "Shoehorning" Men into Studies?: C. K. OLSON
Perspective	614 Messenger RNA Transport and HIV <i>rev</i> Regulation: D. D. CHANG AND P. A. SHARP
News & Comment	616 Counting on Science at EPA ■ Ranking the Risks Proves Contentious 619 Disease Puzzle Nears Solution Scientists Protest Museum Cuts 620 Mouse Facility Makes a Comeback 621 African Locusts: Overkilling the Insect Enemy 622 <i>Briefings</i> : FDA Panel Splits Decision on Drugs ■ Taxes on Black Stuff Could Be Green ■ <i>PNAS</i> Bars Papers from UC Geneticist ■ Relman Hands Over the Reins at <i>NEJM</i> ■ House Prunes Genome Budget ■ Oxford Physicists Undergo Fusion ■ A Dust Buster for Space ■ Science Conduct: Do the Right Thing ■ Former Gallo Aide Faces Felony Charges
Research News	624 Marijuana Receptor Gene Cloned ■ Substance P Causes Pain—But Also Heals 626 U.K. Vaccine Trial: Stalking Horse for the Future 627 Tinkering with Glass and Ceramic Structures 629 A Transistor That Works Electron by Electron 630 Corn Transformed
Articles	631 Ice: A New Dosage Form of an Old Drug: A. K. CHO 635 The Cellular Functions of Small GTP-Binding Proteins: A. HALL
Research Article	641 <i>Toxoplasma gondii</i> : Fusion Competence of Parasitophorous Vacuoles in Fc Receptor-Transfected Fibroblasts: K. A. JOINER, S. A. FUHRMAN, H. M. MIETTINEN, L. H. KASPER, I. MELLMAN

■ SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 1990 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): \$80. Domestic institutional subscription (51 issues): \$150. Foreign postage extra: Canada \$46, other (surface mail) \$46, air mail via Amsterdam \$85. First class, airmail, school-year, and student rates on request. Change of address: allow 6 weeks, giving old and new addresses and 11-digit account number. Postmaster: Send change of address to *Science*, P.O. Box 1723, Riverton, NJ 08077. Single copy sales: Current issue, \$3.50; back issues, \$5.00; Biotechnology issue, \$6.00 (for postage and handling, add per copy \$0.50 U.S., \$1.00 all foreign); Guide to Biotechnology Products and Instruments, \$20 (for postage and handling add per copy \$1.00 U.S., \$1.50 Canada, \$2.00 other foreign). Bulk rates on request. Authorization to photocopy material for internal or personal use under circumstances not falling within the fair use provisions of the Copyright Act is granted by AAAS to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$1 per copy plus \$0.10 per page is paid directly to CCC, 27 Congress Street, Salem, Massachusetts 01970. The identification code for *Science* is 0036-8075/83 \$1 + .10. *Science* is indexed in the *Reader's Guide to Periodical Literature* and in several specialized indexes. The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objectives are to further the work of scientists, to facilitate cooperation among them, to foster scientific freedom and responsibility, to improve the effectiveness of science in the promotion of human welfare, to advance education in science, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.



COVER Immunofluorescence photomicrograph of vacuoles containing the parasite *Toxoplasma gondii* inside a Chinese hamster ovary cell stably transfected with murine Fc receptors. Infected cells were stained with an antibody to a lysosomal glycoprotein (lgp). Only parasites coated with antibody before internalization reside in lgp-stained vacuoles, indicating that route of parasite entry determines fusion competence of the vacuole. See page 641. [Photograph by Philippe Male, Yale University]

Reports

- 647 Memory Glass: An Amorphous Material Formed from AlPO_4 : M. B. KRUGER AND R. JEANLOZ
- 649 Water and Solutions at Negative Pressure: Raman Spectroscopic Study to -80 Megapascals: J. L. GREEN, D. J. DURBEN, G. H. WOLF, C. A. ANGELL
- 652 Direct Cloning of Human Transcripts with HnRNA from Hybrid Cell Lines: L. CORBO, J. A. MALEY, D. L. NELSON, C. T. CASKEY
- 655 Two G Protein Oncogenes in Human Endocrine Tumors: J. LYONS, C. A. LANDIS, G. HARSH, L. VALLAR, K. GRÜNEWALD, H. FEICHTINGER, Q.-Y. DUH, O. H. CLARK, E. KAWASAKI, H. R. BOURNE, F. MCCORMICK
- 659 Metalloantibodies: B. L. IVERSON, S. A. IVERSON, V. A. ROBERTS, E. D. GETZOFF, J. A. TAINER, S. J. BENKOVIC, R. A. LERNER
- 662 A G Protein Mutant That Inhibits Thrombin and Purinergic Receptor Activation of Phospholipase A_2 : S. K. GUPTA, E. DIEZ, L. E. HEASLEY, S. OSAWA, G. L. JOHNSON
- 666 Failure to Phosphorylate the Retinoblastoma Gene Product in Senescent Human Fibroblasts: G. H. STEIN, M. BEESON, L. GORDON
- 669 Restoration of the Plasticity of Binocular Maps by NMDA After the Critical Period in *Xenopus*: S. B. UDIN AND W. J. SCHERER
- 672 Predominant Expression of T Cell Receptor $V_{\alpha}7$ in Tumor-Infiltrating Lymphocytes of Uveal Melanoma: T. NITTA, J. R. OKSENBURG, N. A. RAO, L. STEINMAN
- 674 Regional Variation of Extracellular Space in the Hippocampus: C. J. MCBAIN, S. F. TRAYNELIS, R. DINGLEDDINE
- 677 Expression of T Cell Antigen Receptor Heterodimers in a Lipid-Linked Form: A. Y. LIN, B. DEVAUX, A. GREEN, C. SAGERSTRÖM, J. F. ELLIOTT, M. M. DAVIS

Technical Comments

- 680 Paleobiogeography of the Ancient Pacific: P. L. SMITH AND G. E. G. WESTERMANN; G. D. STANLEY, JR., AND T. E. YANCEY; C. R. NEWTON

Book Reviews

- 684 Apprenticeship in Thinking, reviewed by J. V. WERTSH AND P. TULVISTE ■ Principles of Mental Imagery, AND Mental Imagery, M. J. TARR ■ The Quantum Physics of Atomic Frequency Standards, P. FORMAN ■ Books Received

Products & Materials

- 689 Replacement Parts for HPLC Pumps ■ Nucleic Acid Purification System ■ Ultrasonic Cleaners ■ High-Purity Water Station ■ Motion Analyzer ■ Four-Lane Animal Exerciser ■ Microbial Control for Pure Water Systems ■ Literature

Board of Directors

Richard C. Atkinson
Retiring President,
Chairman

Donald N. Langenberg
President

Leon M. Lederman
President-elect

Mary Ellen Avery
Francisco J. Ayala
Eugene H. Cota-Robles
Robert A. Frosch
Joseph G. Gavin, Jr.
John H. Gibbons
Beatrice A. Hamburg
Florence P. Hasettine

William T. Golden
Treasurer

Richard S. Nicholson
Executive Officer

Editorial Board

Elizabeth E. Bailey
David Baltimore
William F. Brinkman
E. Margaret Burbidge
Pierre-Gilles de Gennes
Joseph L. Goldstein
Mary L. Good
F. Clark Howell
James D. Idol, Jr.
Leon Knopoff
Oliver E. Nelson
Yasutomi Nishizuka
Helen M. Ranney
David M. Raup
Howard A. Schneiderman
Larry L. Smarr
Robert M. Solow
James D. Watson

Board of Reviewing Editors

John Abelson
Don L. Anderson
Stephen J. Benkovic
Gunter K-J Blobel
Floyd E. Bloom
Henry R. Bourne
James J. Bull
Kathryn Calame
Charles R. Cantor
Ralph J. Cicerone
John M. Coffin
Robert Dorfman
Bruce F. Eldridge
Paul T. Englund
Fredric S. Fay
Harry A. Fozzard

Theodore H. Geballe
Roger I. M. Glass
Stephen P. Goff
Corey S. Goodman
Stephen J. Gould
Eric F. Johnson
Stephen M. Kosslyn
Konrad B. Krauskopf
Charles S. Levings III
Richard Losick
Joseph B. Martin
John C. McGiff
Anthony R. Means
Mortimer Mishkin
Roger A. Nicoll
William H. Orme-Johnson III
Carl O. Pabo
Yeshayau Pocker

Dennis A. Powers
Erkki Ruoslahti
Thomas W. Schoener
Ronald H. Schwartz
Terrence J. Sejnowski
Robert T. N. Tjian
Virginia Trimble
Emil R. Unanue
Geerat J. Vermeij
Bert Vogelstein
Harold Weintraub
Irving L. Weissman
Zena Werb
George M. Whitesides
Owen N. Witte
William B. Wood
Keith Yamamoto

Science

249 (4969)

Science **249** (4969), 603-689.

ARTICLE TOOLS <http://science.sciencemag.org/content/249/4969>

PERMISSIONS <http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. The title *Science* is a registered trademark of AAAS.

Copyright © 1990 The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works.