

399 This Week in *Science*

Editorial

401 Microbiological Resource Centers: R. R. COLWELL

Letters

403 Star Wars Software: D. L. PARNAS; H. LIN; D. COHEN and C. L. SEITZ ■
Today's Biotechnology: E. A. NORSE ■ Indirect Costs and Starter
Gains: G. DEV. KLEIN ■ Sheep, Goats, and the History of Psychology:
R. B. DEAN

News & Comment

407 Research Budgets' Fate in Doubt
408 NIMH Celebrates 40th Birthday
409 Pentagon Plans New Antisatellite Tests
411 Redesign of Ariane Is Under Way
412 Small Colleges Strong in Science
414 *Briefing*: AIDS Case Dismissed on Legal Technicality ■ New Funds for AIDS
Drug Centers ■ NIH Restores Animal Funds to Columbia ■ Pornography
Report Unveiled ■ Vaccine Compensation Proposals Abound on Capitol Hill ■
MIT's Faustian Bargain: Signs of Malaise ■ DOD's New Research Fund: 963
Seek and 86 Receive ■ Scientific American Sale to German Publisher Okayed

Research News

417 Heart Attacks at 9:00 a.m.
418 Rallying Against AIDS: Brain Endothelial Cells Infected by AIDS Virus ■ In
Search of the Best Drug Against AIDS ■ Measuring Antibodies May Predict
Disease
420 Decision Time for the Supercollider ■ Why Go to 20 TeV?
423 *Briefing*: Mitochondrial DNA Tracks Eels' Life Histories

Articles

425 Percolation and Galaxies: L. S. SCHULMAN and P. E. SEIDEN
431 Cannibalism in the Neolithic: P. VILLA, C. BOUVILLE, J. COURTIN, D. HELMER,
E. MAHIEU, P. SHIPMAN, G. BELLUOMINI, M. BRANCA
437 Molecular Biology of the H-2 Histocompatibility Complex: R. A. FLAVEL,
H. ALLEN, L. C. BURKLY, D. H. SHERMAN, G. L. WANECK, G. WIDERA

Reports

444 Morphological Identification of Serotonin-Accumulating Neurons in the Living
Retina: D. I. VANEY
446 A Budget for Continental Growth and Denudation: D. G. HOWELL and
R. W. MURRAY

■ SCIENCE is published weekly on Friday, except the last week in December, and with a plus issue in May 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 at an additional entry. Now combined with *The Scientific Monthly*® Copyright © 1986 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): \$65. Domestic institutional subscription (51 issues): \$98. Foreign postage extra: Canada \$24, other (surface mail) \$27, air-surface via Amsterdam \$65. First class, airmail, school-year, and student rates on request. Single copies \$2.50 (\$3 by mail); back issues \$4 (\$4.50 by mail); Biotechnology issue, \$5.50 (\$6 by mail); classroom rates on request; Guide to Biotechnology Products and Instruments \$16 (\$17 by mail). **Change of address:** allow 6 weeks, giving old and new addresses and seven-digit account number. 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, 21 Congress Street, Salem, Massachusetts 01970. The identification code for Science is 0036-8075/83 \$1 + .10. **Postmaster:** Send Form 3579 to Science, 1333 H Street, NW, Washington, DC 20005. 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 objects 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, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.



COVER Iontophoretic injection of the fluorescent dye, Lucifer yellow, into retinal neurons labeled with a serotonin analog reveals their dendritic morphology. There are two types of serotonin-accumulating interneurons in the rabbit retina, termed S1 (lower) and S2 (upper) amacrine cells that can be distinguished by the extent and branching pattern of their processes. See page 444. [David I. Vaney, National Vision Research Institute of Australia, Carlton, Victoria 3053]

- 449 The 1985 Central Chile Earthquake: A Repeat of Previous Great Earthquakes in the Region?: D. COMTE, A. EISENBERG, E. LORCA, M. PARDO, L. PONCE, R. SARAGONI, S. K. SINGH, G. SUÁREZ
- 453 High Potassium Conductance in Astrocyte Endfeet: E. A. NEWMAN
- 455 Regulation of Expression of the Interleukin-2 Receptor on Hematopoietic Cells by Interleukin-3: M. C. BIRCHNALL-SPARKS, W. L. FARRAR, D. RENNICK, P. L. KILIAN, F. W. RUSCETTI
- 458 Induction of the *c-fos* Oncogene by Thyrotropic Hormone in Rat Thyroid Cells in Culture: G. COLLETTA, A. M. CIRAFICI, G. VECCHIO
- 461 Gene Amplification of *c-myc* and *N-myc* in Small Cell Carcinoma of the Lung: A. J. WONG, J. M. RUPPERT, J. EGGLESTON, S. R. HAMILTON, S. B. BAYLIN, B. VOGELSTEIN
- 464 The E5 Transforming Gene of Bovine Papillomavirus Encodes a Small, Hydrophobic Polypeptide: R. SCHLEGEL, M. WADE-GLASS, M. S. RABSON, Y.-C. YANG
- 467 A Synthetic Peptide from Fibronectin Inhibits Experimental Metastasis of Murine Melanoma Cells: M. J. HUMPHRIES, K. OLDEN, K. M. YAMADA
- 470 A Wind-Forced Ekman Spiral as a Good Statistical Fit to Low-Frequency Currents in a Coastal Strait: M. W. STACEY, S. POND, P. H. LEBLOND
- 472 A Poliovirus Neutralization Epitope Expressed on Hybrid Hepatitis B Surface Antigen Particles: F. DELPEYROUX, N. CHENCINER, A. LIM, Y. MALPIÈCE, B. BLONDEL, R. CRAINIC, S. VAN DER WERF, R. E. STREECK
- 475 Calcium and Sodium Channels in Spontaneously Contracting Vascular Muscle Cells: M. STUREK and K. HERMSMEYER
- 478 Engineering Herbicide Tolerance in Transgenic Plants: D. M. SHAH, R. B. HORSCH, H. J. KLEE, G. M. KISHORE, J. A. WINTER, N. E. TUMER, C. M. HIRONAKA, P. R. SANDERS, C. S. GASSER, S. AYKENT *et al.*

Book Reviews

- 482 Handbook of Holocene Palaeoecology and Palaeohydrology, *reviewed by* H. E. WRIGHT, JR. ■ Gap Junctions, N. J. LANE ■ Cosmic Rays in Interplanetary Magnetic Fields, J. R. JOKIPIII ■ Physics of the Sun, R. F. HOWARD ■ Books Received

Products & Materials

- 485 HPLC Packing ■ Beta Detector ■ Scientific Software ■ Homogenizer ■ Digital Image Recorder ■ Portable Water Test ■ Literature

Board of Directors

Gerard Piel
*Retiring President,
Chairman*

Lawrence Bogorad
President

Sheila E. Widnall
President-elect

Robert McC. Adams
Robert W. Berliner
Floyd E. Bloom
Mary E. Clutter
Mildred S. Dresselhaus
Donald N. Langenberg
Dorothy Nelkin
Linda S. Wilson

William T. Golden
Treasurer

William D. Carey
Executive Officer

Editorial Board

David Baltimore
William F. Brinkman
Ansley J. Coale
Joseph L. Goldstein
James D. Idol, Jr.
Leon Knopoff
Seymour Lipset
Walter Massey
Oliver E. Nelson
Allen Newell
Ruth Patrick
David V. Ragone
Vera C. Rubin
Howard E. Simmons
Solomon H. Snyder
Robert M. Solow

Board of Reviewing Editors

Qais Al-Awqati
James P. Allison
Luis W. Alvarez
Don L. Anderson
C. Paul Bianchi
Elizabeth H. Blackburn
Floyd E. Bloom
Charles R. Cantor
James H. Clark
Bruce F. Eldridge
Stanley Falkow
Theodore H. Geballe
Roger I. M. Glass

Stephen P. Goff
Robert B. Goldberg
Patricia S. Goldman-Rakic
Richard M. Held
Gloria Heppner
Eric F. Johnson
Konrad B. Krauskopf
Karl L. Magleby
Joseph B. Martin
John C. McGiff
Alton Meister
Mortimer Mishkin
Peter Olson
Gordon H. Orians
John S. Pearse
Yeshayau Pocker
Jean Paul Revel

Frederic M. Richards
James E. Rothman
Thomas C. Schelling
Ronald H. Schwartz
Stephen M. Schwartz
Otto T. Solbrig
Robert T. N. Tjian
Virginia Trimble
Geerat J. Vermeij
Martin G. Weigert
Irving L. Weissman
George M. Whitesides
Owen N. Witte
William B. Wood
Harriet Zuckerman

Science

233 (4762)

Science **233** (4762), 399-486.

ARTICLE TOOLS

<http://science.sciencemag.org/content/233/4762>

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. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.