This Week in Science

The Funding Crisis


AIDS Meeting: Unexpected Progress
A Question of "Fitness"
Fraudbusters Back at NIH
Tough Times Ahead for the Genome Project
Hubble Trouble
Women Left Out at NIH
Breast Cancer Therapies Weighed

The Tide of Memory, Turning; Swimming for Dear Memory
A Prism for Electrons; Circuit Boards: Heal Yourselves
Solar Neutrino Deficit Confirmed; Glasnost, Greenhouses, and Ice Ages
Big Number Breakdown
Closing the Gap Between Proteins and DNA

Briefings: Extension Service for Industry; Catch Some Rays; "Turing Test" Prize; British Study Endorses Chiropractic; NASA Scrubs Martian Instrument Package

Experiments with Separated Oscillatory Fields and Hydrogen Masers: N. F. Ramsey

Comparison of Two Forms of Long-Term Potentiation in Single Hippocampal Neurons: R. A. Zalutsky and R. A. Nicoll
Functional Domains and Upstream Activation Properties of Cloned Human TATA Binding Protein: M. G. Peterson, N. Tanese, B. F. Pugh, R. Tjian

SCIENCE is published weekly on Friday, except the last week in December, and with a supplement in March by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class Non-profit postage (publication No. 484460) paid at Washington, DC, and at an additional entry. 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 ($1 issues): $5.00; Domestic institutional subscription ($1 issues): $15.00. Foreign postage extra: Canada $4.60, other (surface mail) $4.60, air mail via Amsterdam $5.90, first class, airmail, school-year, and student rates on request. 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, $2.00 (for postage and handling and add per copy $1.00 U.S., $1.50 Canada, $2.00 all 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 0036-8075/75 $1.00 + . Change of address: allow 8 weeks, giving old and new addresses and 11-digit account number. Postmaster: Send Form 3579 to Science, P.O. Box 1723, Riverton, NJ 08077. 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.

This Week in Science

The Funding Crisis


AIDS Meeting: Unexpected Progress
A Question of "Fitness"
Fraudbusters Back at NIH
Tough Times Ahead for the Genome Project
Hubble Trouble
Women Left Out at NIH
Breast Cancer Therapies Weighed

The Tide of Memory, Turning; Swimming for Dear Memory
A Prism for Electrons; Circuit Boards: Heal Yourselves
Solar Neutrino Deficit Confirmed; Glasnost, Greenhouses, and Ice Ages
Big Number Breakdown
Closing the Gap Between Proteins and DNA

Briefings: Extension Service for Industry; Catch Some Rays; "Turing Test" Prize; British Study Endorses Chiropractic; NASA Scrubs Martian Instrument Package

Experiments with Separated Oscillatory Fields and Hydrogen Masers: N. F. Ramsey

Comparison of Two Forms of Long-Term Potentiation in Single Hippocampal Neurons: R. A. Zalutsky and R. A. Nicoll
Functional Domains and Upstream Activation Properties of Cloned Human TATA Binding Protein: M. G. Peterson, N. Tanese, B. F. Pugh, R. Tjian

SCIENCE is published weekly on Friday, except the last week in December, and with a supplement in March by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class Non-profit postage (publication No. 484460) paid at Washington, DC, and at an additional entry. 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 ($1 issues): $5.00; Domestic institutional subscription ($1 issues): $15.00. Foreign postage extra: Canada $4.60, other (surface mail) $4.60, air mail via Amsterdam $5.90, first class, airmail, school-year, and student rates on request. 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, $2.00 (for postage and handling and add per copy $1.00 U.S., $1.50 Canada, $2.00 all 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 0036-8075/75 $1.00 + . Change of address: allow 8 weeks, giving old and new addresses and 11-digit account number. Postmaster: Send Form 3579 to Science, P.O. Box 1723, Riverton, NJ 08077. 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 A view of the localized phytoalexin response of a single epidermal cell of Sorghum bicolor to the phytopathogen Colletotrichum graminicola. The response is characterized by the accumulation of phytoalexins in cytoplasmic inclusions that enlarge as they move toward the fungal infection structure, releasing their contents and restricting the growth of the pathogen. See page 1637. [Photograph by Ralph L. Nicholson]

Reports

1631 Influence of Environmental Quality on Pollen Competitive Ability in Wild Radish: H. J. Young and M. L. Stanton

1633 Light-Evoked Changes in the Interphotoreceptor Matrix: F. Uehara, M. T. Matthes, D. Yasumura, M. M. LaVail

1637 Synthesis of Phytoalexins in Sorghum as a Site-Specific Response to Fungal Ingress: B. A. Snyder and R. L. Nicholson

1639 Human CD4 Binds Immunoglobulins: P. Lenert, D. Kroon, H. Spiegelberg, E. S. Golub, M. Zanetti

1643 Induction of Neonatal Tolerance to Mlsa Antigens by CD8+ T Cells: S. R. Webb and J. Sprent


1650 A cDNA for a Protein That Interacts with the Human Immunodeficiency Virus Tat Transactivator: P. Nelbock, P. J. Dillon, A. Perkins, C. A. Rosen


1656 Mediation of Wound-Related Rous Sarcoma Virus Tumorigenesis by TGF-β: M. H. Sieweke, N. L. Thompson, M. B. Sporn, M. J. Bissell


1663 Endothelin Stimulation of Cytosolic Calcium and Gonadotropin Secretion in Anterior Pituitary Cells: S. S. Stoilkovic, F. Merelli, T. Iida, L. Z. Krsmanovic, K. J. Catt

Book Reviews

1667 Scale and Scope, reviewed by R. M. Abrams | Vision and the Emergence of Meaning, K. Nelson | Some Other Books of Interest | Books Received

Author Index to volume 248 is found on pages I–X
Information for Contributors is found on pages XI–XII
Science 248 (4963), 198-1670.