### Editorial
- 9 The Howard Hughes Medical Institute

### Letters
- 11 The Nature of Whistle-Blowing: J. T. EDSELL
- 11 Computer Searches: P. R. BRISTOR; S. T. AHLERS AND J. F. HOUSE

### News & Comment
- 13 A War on Drugs with Real Troops?
- 15 Post Office Nixes Germs by Mail
- 16 Japan's Human Frontiers Program Advances
- 17 U.S.–Japan Science Pact Signed
- 18 A Bitter Battle Over Error (II) • “Internal Audit” a Challenge
- 21 USDA Grants Program Threatened
- 22 Space Station: At the Brink
- 23 EPA Proposes State Action on Aldicarb

### Research News
- 23 Report Urges Greenhouse Action Now
- 24 Blood-Forming Stem Cells Purified
- 25 Near-Field Microscopes Beat the Wavelength Limit
- 26 Pattern and Process in Extinctions
- 27 Toward a Unified Theory of Cognition

### Articles
- 31 The Expert Witness in Psychology and Psychiatry: D. FAUST AND J. ZISKIN
- 42 The Protein Kinase Family: Conserved Features and Deduced Phylogeny of the Catalytic Domains: S. K. HANKS, A. M. QUINN, T. HUNTER

### Research Articles
- 53 Combinatorial Cassette Mutagenesis as a Probe of the Informational Content of Protein Sequences: J. F. REIDHAAR-OLSON AND R. T. SAUER
- 58 Purification and Characterization of Mouse Hematopoietic Stem Cells: G. J. SPANGRUDE, S. HEIMFELD, I. L. WEISSMAN

### Reports
- 63 New Evidence on the Size and Possible Effects of a Late Pliocene Oceanic Asteroid Impact: F. T. KYTE, L. ZHOU, J. T. WASSON

---

SCIENCE is published weekly on Friday, except the last week in December, and with an extra issue in February 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. Copyright © 1988 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): $70. Domestic institutional subscription (51 issues): $110. Foreign postage extra: Canada $32, other (surface mail) $32, air-surface via Amsterdam $85. First class, airmail, school-year, and student rates on request. Single copies $3.00 ($3.50 by mail); back issues $4.50 ($5.00 by mail); book technology issue, $5.50 ($6 by mail); classroom rates on request; Guide to Bio-Technology 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.
Brownian Dynamics of Cytochrome c and Cytochrome c Peroxidase Association: S. H. Northrup, J. O. Boles, J. C. L. Reynolds

Tertiary Structure of Plant Rubisco: Domains and Their Contacts: M. S. Chapman, S. W. SuH, P. M. G. Curmi, D. Cascio, W. W. Smith, D. S. Eisenberg

Aminoacylation of Synthetic DNAs Corresponding to Escherichia coli Phenylalanine and Lysine tRNAs: A. S. Khan and B. A. Roe


Estrogen Binding, Receptor mRNA, and Biologic Response in Osteoblast-Like Osteosarcoma Cells: B. S. Komm, C. M. Terpening, D. J. Benz, K. A. Graeme, A. Gallegos, M. Korc, G. L. Greene, B. W. O'Malley, M. R. Haussler


Local Embryonic Matrices Determine Region-Specific Phenotypes in Neural Crest Cells: R. Perris, Y. von Boxberg, J. Löfberg


Role of the Gastropod Shell and Operculum in Inhibiting Predation by Fishes: S. F. Norton


AAAS and Apple Computer Initiate Project: J. Wrathath ■ Improved Member Subscription Services Coming ■ Association Issues Annual Report ■ Joseph G. Gavin, Jr., Joins Board of Directors ■ Arctic Division to Meet in October ■ Chicago Site of Midwest R&D Meeting ■ SWARM Division Meets in Wichita ■ Obituaries

Ancient Chalcatzingo, reviewed by R. N. Zeitlin ■ Developmental Toxicology, L. M. Anderson ■ Axis and Circumference, P. W. Webb ■ Supernova Remnants and the Interstellar Medium, P. Murdin ■ Reprints of Books Previously Reviewed ■ Books Received

Mass Spectra CD-ROM Database ■ SBLC Columns ■ Capillary Columns ■ Research Microscope ■ Protein Sequencer ■ Serum-Free Tissue Culture Media ■ Literature