

511 This Week in *Science*

Editorial

513 The Science Vote in Iowa

Policy Forum

514 HIV Is Not the Cause of AIDS: P. DUESBERG ■ HIV Causes AIDS:
W. BLATTNER, R. C. GALLO, H. M. TEMIN

Letters

518 Large Females, Small Males: R. T. MOORE ■ Brain Implants and Behavioral
Changes: B. L. WISE ■ Chemical Lab Wastes: J. RUSSO ■ The National Aerospace
Plane: G. R. WOODCOCK ■ Mitochondria in Sperm: K. C. CARNEY;
J. L. MARX

Association Affairs

519 Richard C. Atkinson: President-Elect of AAAS: W. J. MCGILL

News & Comment

521 Crisis in AID Malaria Network ■ Vaccine Trials Disappoint
524 East European Scientific Cooperation Seen Lagging
525 Harvard Tackles the Rush to Publication
526 DOE Pushes Case for New Defense Reactors
528 Sagdeev to Step Down

Research News

529 Conservationist in Panda-monium ■ When the Bamboo Blooms
532 Comets Were a Clerical Error
New Ways to Chill Earth
533 Another Glitch for AIDS Vaccines?
535 Progress in Predicting Breast Cancer Relapses

Articles

536 The Discovery of Crown Ethers: C. J. PEDERSEN
540 Social Relationships and Health: J. S. HOUSE, K. R. LANDIS,
D. UMBERSON
545 The Coupling of Neurotransmitter Receptors to Ion Channels in the Brain:
R. A. NICOLL

Research Articles

551 Parallel Stranded DNA: J. H. VAN DE SANDE, N. B. RAMSING, M. W. GERMANN,
W. ELHORST, B. W. KALISCH, E. v. KITZING, R. T. PON, R. C. CLEGG,
T. M. JOVIN
558 Molecular Characterization of a Functional cDNA Encoding the Serotonin 1c
Receptor: D. JULIUS, A. B. MACDERMOTT, R. AXEL, T. M. JESSELL

- 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. Now combined with *The Scientific Monthly*. 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); 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 False-color representation of midplane densities in a bar-shaped model of the early solar nebula (the region shown is eight times the earth-sun distance across). Dark colors are high density; white is low. The binary is expected to merge and form a protsun; the planets may have formed in the surrounding nebula. See page 565. [Alan P. Boss, Carnegie Institution of Washington, Washington, DC 20015]

Reports

- 565 High Temperatures in the Early Solar Nebula: A. P. BOSS
- 567 A Tsunami Deposit at the Cretaceous-Tertiary Boundary in Texas: J. BOURGEOIS, T. A. HANSEN, P. L. WIBERG, E. G. KAUFFMAN
- 570 DNAs of the Two Mating-Type Alleles of *Neurospora crassa* Are Highly Dissimilar: N. L. GLASS, S. J. VOLLMER, C. STABEN, J. GROTELUESCHEN, R. L. METZENBERG, C. YANOFSKY
- 573 HIV-1-Infected T Cells Show a Selective Signaling Defect After Perturbation of CD3/Antigen Receptor: G. P. LINETTE, R. J. HARTZMAN, J. A. LEDBETTER, C. H. JUNE
- 577 Cloning of a Lymphoid-Specific cDNA Encoding a Protein Binding the Regulatory Octamer DNA Motif: L. M. STAUDT, R. G. CLERC, H. SINGH, J. H. LEBOWITZ, P. A. SHARP, D. BALTIMORE
- 580 Chemotransduction in the Carotid Body: K^+ Current Modulated by PO_2 in Type I Chemoreceptor Cells: J. LÓPEZ-BARNEO, J. R. LÓPEZ-LÓPEZ, J. UREÑA, C. GONZÁLEZ
- 582 Selective Activation of Transcription by a Novel CCAAT Binding Factor: S. N. MAITY, P. T. GOLUMBEK, G. KARSENTY, B. DE CROMBRUGGHE
- 585 cDNA Expression Cloning of the IL-1 Receptor, a Member of the Immunoglobulin Superfamily: J. E. SIMS, C. J. MARCH, D. COSMAN, M. B. WIDMER, H. R. MACDONALD, C. J. MCMAHAN, C. E. GRUBIN *et al.*
- 589 Intervacuole Exchanged in the Yeast Zygote: A New Pathway in Organelle Communication: L. S. WEISMAN AND W. WICKNER
- 591 Low Plasma Cholesterol Levels Caused by a Short Deletion in the Apolipoprotein B Gene: S. G. YOUNG, S. T. NORTHEY, B. J. MCCARTHY
- 593 Conversion of Normal Behavior to Shiverer by Myelin Basic Protein Antisense cDNA in Transgenic Mice: M. KATSUKI, M. SATO, M. KIMURA, M. YOKOYAMA, K. KOBAYASHI, T. NOMURA

Technical Comments

- 596 Sea Level History: N. CHRISTIE-BLICK, G. S. MOUNTAIN, K. G. MILLER; B. U. HAQ, P. R. VAIL, J. HARDENBOL, J. C. VAN WAGONER; R. K. MATTHEWS; P. R. VAIL AND B. U. HAQ; F. M. GRADSTEIN, F. P. AGTERBERG, M.-P. AUBRY, W. A. BERGGREN, J. J. FLYNN, R. HEWITT, D. V. KENT, K. D. KLITGORD, K. G. MILLER, J. OBRADOVITCH, J. G. OGG, D. R. PROTHERO, G. E. G. WESTERMAN; B. U. HAQ, J. HARDENBOL, P. R. VAIL

Book Reviews

- 603 Social Control of the Drinking Driver, reviewed by P. J. COOK ■ Innovation and the Rise of the Tunnelling Industry, D. C. JACKSON ■ Primate Social Systems, R. S. O. HARDING ■ Some Other Books of Interest ■ Books Received

Board of Directors

Sheila E. Widnall
*Retiring President,
Chairman*

Walter E. Massey
President

Richard C. Atkinson
President-elect

Floyd E. Bloom
Mary E. Clutter
Eugene H. Cota-Robles
Mildred S. Dresselhaus
Joseph G. Gavin, Jr.
Beatrix A. Hamburg
Donald N. Langenberg

William T. Golden
Treasurer

Alvin W. Trivelpiece
Executive Officer

Editorial Board

Elizabeth E. Bailey
David Baltimore
William F. Brinkman
E. Margaret Burbidge
Philip E. Converse
Joseph L. Goldstein
F. Clark Howell
James D. Idol, Jr.
Leon Knopoff
Oliver E. Nelson
Helen M. Ranney
David M. Raup
Howard A. Schneiderman
Larry L. Smarr
Robert M. Solow
James D. Watson

Board of Reviewing Editors

John Abelson
Qais Al-Awqati
Don L. Anderson
Stephen J. Benkovic
Floyd E. Bloom
Henry R. Bourne
James J. Bull
Charles R. Cantor
Ralph J. Ciccerone
John M. Coffin
Bruce F. Eldridge
Paul T. Englund
Theodore H. Geballe
Roger I. M. Glass

Stephen P. Goff
Robert B. Goldberg
Corey S. Goodman
Jack Gorski
Stephen J. Gould
Richard M. Held
Gloria Heppner
Eric F. Johnson
Konrad B. Krauskopf
Charles S. Levings III
Richard Losick
Karl L. Magleby
Philippa Marrack
Joseph B. Martin
John C. McGiff
Mortimer Mishkin
Jiri Novotny
Gordon H. Orians

Carl O. Pabo
Yeshayau Pocker
Michael I. Posner
Jean Paul Revel
Russell Floss
James E. Rothman
Daniel V. Santi
Ronald H. Schwartz
Vernon L. Smith
Otto T. Solbrig
Robert T. N. Tjian
Virginia Trimble
Geerat J. Vermeij
Harold Weintraub
Irving L. Weissman
George M. Whitesides
Owen N. Witte
William B. Wood

Science

241 (4865)

Science **241** (4865), 511-606.

ARTICLE TOOLS

<http://science.sciencemag.org/content/241/4865>

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 © 1988 The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works.