

7 This Week in *Science*

Editorial

9 Presidential Elections and the NSF Directorship: R. C. ATKINSON

Perspective

13 Molecular Neurobiology—A Conference Sponsored by the NIMH:  
R. H. SCHELLER AND J. D. BARCHAS

Letters

15 NIDA's Role in War on Drugs: C. R. SCHUSTER; F. K. GOODWIN ■ Ecological  
Physiology: M. S. GORDON ■ Sex Survey: J. D. WEINRICH

News & Comment

19 Johnny Appleseed and the Greenhouse  
20 American Parallel for Oxford Research  
21 Gene Therapy OK'd  
22 U.S. and Partners Sign Space Station Agreement  
23 Liftoff  
U.S.S.R. to Set Up Fund for Basic Research  
24 Cut-Price Plan Offered for SDI Deployment  
25 EPA: Ozone Treaty Weak  
26 A New Way to Slice the Doctor's Pie  
27 Congress Passes Reforms in Pesticide Law ■ Trivelpiece to Leave AAAS ■  
Breuning Pleads Guilty  
28 Cosmos 1900 Fails Safe ■ Kingsbury Resigns from NSF

Research News

29 Setting a New Standard ■ A Chance to Retake TV Market?  
31 A Testable Theory of Superconductivity  
32 Gene-Watchers' Feast Served Up in Toronto: Putting Foreign Genes into  
Domestic Animals ■ New Method Found for Making Mutant Mice ■ Are Aging  
and Death Programmed in Our Genes?  
34 AMS Celebrates—and Worries

Articles

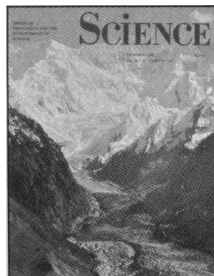
44 Perceived Risk, Real Risk: Social Science and the Art of Probabilistic Risk  
Assessment: W. R. FREUDENBURG  
50 Structure and Function of Voltage-Sensitive Ion Channels: W. A. CATTERALL

Reports

62 Predator-Prey Role Reversal in a Marine Benthic Ecosystem: A. BARKAI AND  
C. MCQUAID  
64 Catastrophic Landslide Deposits in the Karakoram Himalaya: K. HEWITT  
67 Regulation of a Heart Potassium Channel by Protein Kinase A and C:  
K. B. WALSH AND R. S. KASS  
69 Distinct Cloned Class II MHC DNA Binding Proteins Recognize the X Box  
Transcription Element: H.-C. LIOU, M. R. BOOTHBY, L. H. GLIMCHER  
72 Pertussis Toxin S1 Mutant with Reduced Enzyme Activity and a Conserved  
Protective Epitope: W. N. BURNETTE, W. CIEPLAK, V. L. MAR, K. T. KALJOT,  
H. SATO, J. M. KEITH

■ 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; back issues \$5.00; 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** The upper part of the Bualtar Glacier, Karakoram Himalaya, descends 4,519 meters (14,800 feet) from Minapin Peak (7,250 meters above sea level). In the foreground, rockslide debris covers 4.1 square kilometers of the glacier. The glacier accelerated in and below this area several months after the rockslide occurred. Visible effects of this acceleration include heavy crevassing, over-steepened ice margins, and ponded meltwater drainage. See page 64. [Kenneth Hewitt, Snow and Ice Hydrology Project, Wilfred Laurier University, Waterloo, Ontario, Canada N2L 3C5]

- 74 Pharmacological Induction of Use-Dependent Receptive Field Modifications in the Visual Cortex: J. M. GREUEL, H. J. LUHMANN, W. SINGER
- 78 Putative Melatonin Receptors in a Human Biological Clock: S. M. REPPERT, D. R. WEAVER, S. A. RIVKES, E. G. STOPA
- 81 Postsynaptic Calcium Is Sufficient for Potentiation of Hippocampal Synaptic Transmission: R. C. MALENKA, J. A. KAUER, R. S. ZUCKER, R. A. NICOLL
- 84 Muscarinic Depression of Long-Term Potentiation in CA3 Hippocampal Neurons: S. WILLIAMS AND D. JOHNSTON
- 87 Prenatal Tetrodotoxin Infusion Blocks Segregation of Retinogeniculate Afferents: C. J. SHATZ AND M. P. STRYKER
- 90 Spontaneous Impulse Activity of Rat Retinal Ganglion Cells in Prenatal Life: L. GALLI AND L. MAFFEI
- 91 Localization of an Arg-Gly-Asp Recognition Site Within an Integrin Adhesion Receptor: S. E. D'SOUZA, M. H. GINSBERG, T. A. BURKE, S. C.-T. LAM, E. F. PLOW
- 93 tRNA<sup>met</sup> Functions in Directing the Scanning Ribosome to the Start Site of Translation: A. M. CIGAN, L. FENG, T. F. DONAHUE
- 97 Endothelial Adhesiveness for Blood Neutrophils Is Inhibited by Transforming Growth Factor- $\beta$ : J. R. GAMBLE AND M. A. VADAS
- 99 Ryanodine Receptor of Skeletal Muscle Is a Gap Junction-Type Channel: J. MA, M. FILL, C. M. KNUDSON, K. P. CAMPBELL, R. CORONADO
- 102 Olmec Settlement Data from La Venta, Tabasco, Mexico: W. F. RUST AND R. J. SHARER
- 105 Evidence for a Cultivar and a Chronology from Patterned Wetlands in Central Veracruz, Mexico: A. H. SIEMENS, R. J. HEBDA, M. N. HERNÁNDEZ, D. R. PIPERNO, J. K. STEIN, M. G. ZOLÁ BÁEZ

## Inside AAAS

- 108 Why AAAS Doesn't Lobby. Much: T. M. POWLEDGE ■ Gibbons Joins Board ■ Grad Student Prizes ■ Be a Critic ■ AAAS Council: M. WHITE ■ Want to Get *Science* Free?: J. COLSON

## Meetings

- 113 *Gordon Research Conferences: Winter Program* ■ Registration Form: A. M. CRUICKSHANK

## Book Reviews

- 118 Australian Science in the Making, reviewed by S. G. KOHLSTEDT ■ Nature in Its Greatest Extent, D. P. MILLER ■ Interindividual Behavioral Variability in Social Insects, M. L. WINSTON ■ Chemistry of the Natural Atmosphere, G. E. GORDON ■ Reprints of Books Previously Reviewed ■ Books Received

## Products & Materials

- 123 Chromatography Software ■ Disposable Electroelution Device ■ Supercomputers for 3-D Graphics ■ Bibliography Software ■ Modular Laboratory Automation ■ NMR Spectrometer ■ Literature

### 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.  
John H. Gibbons  
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. Cicerone  
John M. Coffin  
Robert Dorfman  
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. Orans

Carl O. Pabo  
Yeshayau Pocker  
Michael I. Posner  
Dennis A. Powers  
Jean Paul Revel  
Russell Ross  
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

**242 (4875)**

*Science* **242** (4875), 7-123.

ARTICLE TOOLS

<http://science.sciencemag.org/content/242/4875>

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.