915 This Week in Science

917 Editorial
RISK RESEARCH: WHEN SHOULD WE SAY “ENOUGH?”: M. G. MORGAN

919 Letters
QUALITY OF INTRAMURAL RESEARCH: E. S. GERSHON; F. PRESS • ISSUE NUMBERS AND LIBRARIANSHIP: A. BAKER; D. E. KOSHJLAN, JR. • PUNCTUATED EQUILIBRIUM: FROM THE OTHER SIDE: R. B. ECKHARDT

921 News & Comment
BUDGET BILLS BOOST R&D SPENDING
922 RIVER BLINDNESS: A GAMBLE PAYS OFF • SIMULIUM DAMNOSUM • A WINNING COMBINATION
925 SOVIET–U.S. FUSION Pact DIVIDES ADMINISTRATION
928 BRIEFING: CREATIONISM CASE GOES TO SUPREME COURT • HOUSE POLICY GROUP REVIEWS SCIENCE ACADEMIES • DOD BACKTRACKS ON GRANTS TO SDI CRITICS • SENATE TAX BILL DRAWS FEW PROTESTS FROM RESEARCH COMMUNITY

930 Research News
BIRD CHIMERAS MAY BE MODELS FOR CERTAIN NEUROLOGICAL DISEASES
932 BRIEFING: CANCER PROGRESS DATA CHALLENGED
933 THE CONTINENTAL PLATES ARE GETTING THICKER
935 FACTORING ON MICROCOMPUTERS
936 A COSMIC STRING IN LEO?

951 Articles
BIOCHEMICAL TOPOLOGY: APPLICATIONS TO DNA RECOMBINATION AND REPPLICATION: S. A. WASSERMAN AND N. R. COZZARELLI
960 TWO-DIMENSIONAL NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY: A. BAX AND L. LERNER
968 AN INDUSTRY PICTURE OF U.S. SCIENCE POLICY: E. E. DAVID, JR.

972 Reports
975 SULFATE AND NITRATE CONCENTRATIONS FROM A SOUTH GREENLAND ICE CORE: P. A. MAYEWSKI, W. B. LYONS, M. J. SPENCER, M. TWICKLER, W. DANSGAARD, B. KOCH, C. I. DAVIDSON, R. E. HONRATH
977 CONTROL OF CACHETIN (TUMOR NECROSIS FACTOR) SYNTHESIS: MECHANISMS OF ENDOXIN RESISTANCE: B. BEUTLER, N. KROCHIN, I. W. MILSARK, C. LUEDDE, A. CERAMI
980 EVOLUTION OF HUMAN INFLUENZA A VIRUSES OVER 50 YEARS: RAPID, UNIFORM RATE OF CHANGE IN NS GENE: D. A. BUONAGURIO, S. NAKADA, J. D. PARVIN, M. KRYSAL, P. PALESE, W. M. FITCH
983 PLANT PHENOLIC COMPOUNDS INDUCE EXPRESSION OF THE AGROBACTERIUM TUMEFACIENS LOCI NEEDED FOR VIRULENCE: G. W. BOLTON, E. W. NESTER, M. P. GORDON
985 INDUCTION OF SYNAPTIC POTENTIATION IN HIPPOCAMPUS BY PATTERNED STIMULATION INVOLVES TWO EVENTS: J. LARSON AND G. LYNCH

**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. 464460) paid at Washington, DC, and at an additional entry, Now combined with The Scientific Monthly's. Copyright © 1986 by the American Association for the Advancement of Science. 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. 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 $.10 per page is paid directly to CCC, 21 Congress Street, Salem, Massachusetts 01970. The identification code for Science is 0036-8075/86 $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.
Fijian war clubs presented to the U.S. Exploring Expedition on its visit to Ovalau in 1840. “Short round-headed throwing or missile clubs such as the two at the top and one in the foreground were used to stun an enemy. . . . The larger two-handed clubs have different functions. The center club was said to slice and snap through bone, while the painted battle hammer on the right made a neat hole in the skull.” The collection of Fijian artifacts made during the Expedition is “one of the three most important in the world and the only one that can document a specific time period.” [Courtesy of the National Museum of Natural History; from A. L. Kaeplinger. “Anthropology and the Exploring Expedition,” in Magnificent Voyagers, reviewed on page 1020]

988 Associative Induction of Posttetanic and Long-Term Potentiation in CA1 Neurons of Rat Hippocampus: B. R. Sastry, J. W. Goh, A. Auyeung
991 Coronavirus Infection Induces H-2 Antigen Expression on Oligodendrocytes and Astrocytes: A. Suzumura, E. Lavi, S. R. Weiss, D. H. Silberberg
993 Hyperphoretic Dispersal of a Psychrophila Anamorph: M. Blackwell, J. K. Bridges, J. C. Moser, T. J. Perry
1001 Mapping Epitopes on a Protein Antigen by the Proteolysis of Antigen-Antibody Complexes: R. Jemmerison and Y. Paterson
1004 Steroid Hormone Metabolites Are Barbiturate-Like Modulators of the GABA Receptor: M. D. Majewska, N. L. Harrison, R. D. Schwartz, J. L. Barker, S. M. Paul

Book Reviews
1008 Modes of Higher Education: B. L. R. Smith; other reviews by S. S. Elberg, L. E. Klopper, L. Paine
1013 A Professional Transmigration: S. Rothblatt; other review by R. Jackall
1014 Processes of Persuasion: S. M. Walt; other review by W. H. Lambright
1016 The American Telephone Industry: H. N. Scheiber; other reviews by W. B. Carlson, S. Baatz
1021 Contractual Arrangements: W. T. Bielby; other review by H. S. Farrer
1023 Native History in North America: B. G. Trigger; other reviews by R. S. Davis, C. O. Lovejoy
1031 The Hubbard Brook Ecosystem: J. M. Melack; other reviews by E. Suess, K. Hunkeins, T. L. Wright, W. B. White
1035 A Reunion in Physics: W. J. Marciano; other reviews by B. Zuckerman, J. Silk, G. Wynn-Williams, F. M. Pippin, J. Baron
1039 New Looks at Faraday: D. B. Wilson; other reviews by T. L. Hanksins, A. H. Koblitz
1042 Books Reviewed in Science, 17 May 1985 through 16 May 1986
1045 Books Received

Products & Materials
1048 Cell Culture Incubator ■ Metering Pumps ■ Coated Labware ■ DNA-Based Test for AIDS ■ Microelectrodes ■ Epithelial Cell Marker ■ Staphylococcal Nuclease ■ Literature

Board of Directors
Robert McC. Adams
Robert W. Berliner
Mildred Dresselhaus
Donald N. Langenberg
Dorothy Nelkin
John E. Sawyer
Sheila E. Widnall
Linda S. Wilson
William T. Golden
Treasurer
William D. Carey
Executive Officer

Editorial Board
David Baltimore
William F. Brinkman
Anley J. Coale
Joseph L. Goldstein
James D. Idol, Jr.
Leon Knoppoff
Seymour Lipset
Walter Massey
Oliver E. Nelson
Allen Newell
Ruth Patrick
David W. Rags
Vera C. Rubin
Howard E. Simmons
Solomon H. Snyder
Robert M. Solow

Board of Reviewing Editors
Oaa Al-Awadi
James P. Allison
Luis W. Alvarez
Dor L. Anderson
C. Paul Bianchi
Elizabeth H. Blackburn
Floyd E. Bloom
Charles R. Cantor
James H. Clark
Bruce F. Edrige
Stanley Falkow
Theodore H. Gebele
Roger I. M. Glass

Stephen P. Goff
Robert B. Goldberg
Patricia S. Goldman-Rakic
Richard M. Held
Glota Hopper
Eric F. Johnson
Konrad B. Krauskopf
Joseph B. Martin
John C. McGiff
Alton Meister
Martind Miehkin
Gordon H. Orians
John S. Pearse
Yashepau Pocker
Frederic M. Richards
James E. Rothman
Ronald H. Schwartz
Stephen M. Schwartz
Otto T. Solberg
Robert T. N. Tihan
Virginia Trimble
Gewarl J. Vermeil
Martin G. Weisger
George M. Whitesides
William B. Wood
Harriet Zuckerman

23 MAY 1986

TABLE OF CONTENTS 913

Downloaded from http://science.sciencemag.org/ on April 8, 2017