This Week in Science

Editorial
9 Let Us Meander

Letters

News & Comment
12 Imported Chips: A Security Risk?
13 Gene-Splicing Debate Heats Up in Germany
14 President Awards Science and Technology Medals
15 Larger Public Sector Role Sought on Biotech □ EPA Suspends Biotech Permit
16 Antagonists Agree on Pesticide Law Reform
17 Briefing: OMB Offers to Delay Indirect Cost Cuts □ NSF Designates Five New Engineering Centers □ House Science Committee Chairman Leaving Congress □ NSF to Establish Computer Directorate □ British Telescope Dogged by British Weather □ New French Government Scraps Research Ministry □ Comings and Goings

Research News
20 Obese Children: A Growing Problem
22 Can Synchrotron Light Save the Chip Industry?
24 Why Dynamiting Vampire Bats Is Wrong □ Case Studies in Ecology
26 Briefing: The Currents of Space

Articles
27 High-Resolution Climatic Analysis and Southwest Biogeography: R. P. NELSON
34 A Receptor-Mediated Pathway for Cholesterol Homeostasis: M. S. BROWN and J. L. GOLDSTEIN
48 The Tunneling Microscope: A New Look at the Atomic World: J. A. GOLOVCHENKO

Reports
54 The Geochemical Behavior of Aluminum in Acidified Surface Waters: D. K. NORDSTROM and J. W. BALL
58 Role of Platelet-Activating Factor–Acerther in Mediating Guinea Pig Anaphylaxis: H. DARIUS, D. J. LEFEBR, J. B. SMITH, A. M. LEFEBR.
65 Electrophoretic Separations of Large DNA Molecules by Periodic Inversion of the Electric Field: G. F. CARLE, M. FRANK, M. V. OLSON
71 Lectin Activation in Giardia lamblia by Host Protease: A Novel Host-Parasite Interaction: B. LEV, H. WARD, G. T. KEUSCH, M. E. A. PEREIRA
73 Living Nautilus Embryos: Preliminary Observations: J. M. ARNOLD and B. A. CARLSON

SCIENCE is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class postage (publication No. 494460) paid at Washington, DC, and at an additional entry. No combined with The Scientific Monthly. Copyright © 1874 by the American Association for the Advancement of Science. Domestic individual membership and subscription ($1 issues): $60. Domestic institutional subscription ($1 issues): $60. 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 others 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 0036-8075/86 $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.
76 In Vivo Competition Between a Metallothionein Regulatory Element and the SV40 Enhancer: H. SCHOLER, A. HASLINGER, A. HEGUY, H. HOLTGREVE, M. KARIN
80 Activation of Smooth Muscle Contraction: Relation Between Myosin Phosphorylation and Stiffness: K. E. KAMM AND J. T. STULL
83 Development of Visual Pattern Discrimination in the Fly Depends on Light Experience: K. MIMURA
90 Extended Oxygen Delivery from the Nerve Hemoglobin of Tellina alternata (Bivalvia): D. W. KRAUS AND J. M. COLACINO
95 Mechanisms of Human Motion Perception Revealed by a New Cyclopean Illusion: M. SHADLEN AND T. CARNEY
97 Receptor-Coupled Activation of Phosphoinositide-Specific Phospholipase C by an N Protein: C. D. SMITH, C. C. COX, R. SNYDERMAN
100 Anti-Idiotype Antibodies Bear the Internal Image of a Human Tumor Antigen: D. HERLYN, A. H. ROSS, H. KOPROWSKI
102 Perturbation of Red Cell Membrane Structure During Intracellular Maturation of Plasmodium falciparum: T. F. TARASCHI, A. PARASHAR, M. HOOKS, H. RUBIN
105 Thalloglytic Allelopathy: Isolation and Identification of Laetisic Acid: W. S. BOWERS, H. C. HOCH, P. H. EVANS, M. KATAYAMA

AAAS News

108 AAAS Project Begins Work with Disability Groups in China ■ Grants to Self-Sponsored Foreign Graduate Students to Attend AAAS Annual Meeting ■ Causality in Heredity and Aging ■ Report from Indian Science Congress Association ■ Reminder for Members

Book Reviews

110 Andean Ecology and Civilization, reviewed by R. L. BURGER ■ Sweetness and Power, W. R. WRIGHT ■ Evolutionary Ecology of Marsupials, B. S. LOW ■ Ecology and Genetics of Host-Parasite Interactions, R. C. VRJENHOEK ■ Astrophysics of Active Galaxies and Quasi-Stellar Objects, M. G. SMITH ■ Some Other Books of Interest ■ Books Received

Products & Materials

115 Antibody Screening ■ Wash Module for Sample Handling ■ Balances ■ TLC Sample Applicator ■ Ion Chromatographs ■ Gel Filtration Chromatography Columns ■ Affinity Chromatography Support ■ Literature