1531 This Week in Science

Editorial
1533 A New Approach to Faculty Salaries

Letters

News & Comment
1541 Spy Satellites: Entering a New Era
1542 Culliton Named to New Post
1543 DOD Lists Critical Technologies
1544 EPA's Plan for Cooling the Global Greenhouse
1545 German Computer Spy Ring Broken
Fraud Review May Be Taken from NIH
Next Science Adviser?
1546 Japan Lays Out Welcome Mat for U.S. Scientists
1547 Psychiatrists Examine Soviet System
1548 European Genome Program Delayed?
Marchuk Admits Flaws in Election
Bonn Launches Wind Energy Experiment ■ . . . Britain Picks Site for Wind Farm

Research News
1549 Limits to DNA Fingerprinting ■ Check on Fingerprint News
1551 Drug-Resistant Strains of AIDS Virus Found
1552 Treasuring the Moon for 20 years
1553 Is Risk Assessment Conservative?
Pulsar, Pulsar, Where Art Thou, Pulsar?
1554 New Equipment Roundup Dazzles Scientists: The Pritcon Experience ■ Crime and Chemical Analysis ■ Probing the Chemistry of the Brain ■ The Outlook for the Equipment Industry

Articles
1557 Star Formation in Irregular Galaxies: D. A. Hunter and J. S. Gallagher, III
1564 Signal Transduction by the Platelet-Derived Growth Factor Receptor: L. T. Williams

Research Articles
1571 Topology and Formation of Triple-Stranded H-DNA: H. Htun and J. E. Dahlberg

Reports

* 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, 1533 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 © 1989 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 $86. First class, airmail, school-year, and student rates on request. Single copy sales: Current issue, $3.50; back issues, $5.00; Biotechnology issue, $6.00 (for postage and handling, add per copy $0.50 U.S., $1.00 all foreign); Guide to Biotechnology Products and Instruments, $18 (for postage and handling add per copy $1.00 U.S., $1.50 Canada, $2.00 other foreign). Bulk rates on request. Change of address: allow 6 weeks, giving old and new addresses and 11-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), 21 Congress Street, Salem, Massachusetts 01970. The identification code for Science is 0036-8075/83 $1 + .10. Postmaster: Send Form 3579 to Science, P.O. Box 1722, Riverton, NJ 08077. 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 rose sea anemone (*Tealia piscivora*) exemplifies the beauty of many cnidarians, the simplest animals having a nervous system. Tentacles of the cosmopolitan anemone (*Halichondria luciae*) have mechanoreceptors on the surface that tune to the movements of prey identified by chemodetection. See page 1589. [Photograph by George Grall, National Aquarium, Baltimore, MD 21202]


1589 Cnidocyte Mechanoreceptors Are Tuned to the Movements of Swimming Prey by Chemoreceptors: G. M. Watson and D. A. Hessaynger

1591 Major Enhancement of the Affinity of an Enzyme for a Transition-State Analog by a Single Hydroxyl Group: W. M. Kati and R. Wolfenden

1593 Direct Measurements of Sliding Between Outer Doublet Microtubules in Swimming Sperm Flagella: C. J. Brokaw

1596 Histamine Is an Intercellular Messenger Mediating Platelet Aggregation: S. P. Saxena, L. J. Brandes, A. B. Becker, K. J. Simmons, F. S. Labella, J. M. Gerrard

1600 Activation of the Cellular Proto-Oncogene Product p21 Ras by Addition of a Myristilation Signal: J. E. Buss, P. A. Solski, J. P. Schaeffer, M. J. MacDonald, C. J. Der

1603 Activity-Dependent Enhancement of Presynaptic Inhibition in *Aplysia* Sensory Neurons: S. A. Small, E. R. Kandel, R. D. Hawkins

1606 Directed Movement of Latex Particles in the Gynoeceum of Three Species of Flowering Plants: L. C. Sanders and E. M. Lord

1608 Commitment of Neural Crest Cells to the Sensory Neuron Lineage: M. Sieber-Blum

1611 Indole-2-Carboxylic Acid: A Competitive Antagonist of Potentiation by Glycine at the NMDA Receptor: J. E. Huttner

Technical Comments


Meetings

1616 Gordon Research Conferences: Application Form

Book Reviews

1617 Neurobiology of Neocortex, reviewed by: S. P. Wise Africanized Honey Bees and Bee Mites, E. E. Lindquist Geomorphology and Hydrology of Karst Terrains, A. L. Bloom Thermal History of Sedimentary Basins, G. Dev. Klein Books Received

Products & Materials

1621 Peristaltic Pump Database Accepts Handwritten Data Database of Journal Contents X-ray Dispersive Microanalytical System Buffer Pads for Semidyblotting Chromatography Integrator Taq DNA Polymerase HPLC Autosampler Literature