This Week in Science

Editorial

Technology for America’s Future

Letters


ScienceScope

Sweeping overhead rates under the rug, gambling with Poker Flat science; etc.

News & Comment

Baltimore Throws in the Towel ■ David Baltimore’s Mea Culpa

Science Under Wraps in Prince William Sound

Science Academy Elects New Members

Briefings: Hidden Costs of the Space Station ■ A Big Gift from Big Oil ■ A Billion Bucks for Materials ■ Congressional Day ■ Ten Years for the Brain ■ Cuban AIDS Control ■ Biotechnology Execs Earn More ■ Correction

Research News

Engineering Dogma Gives Way to Chaos ■ Flying High with Chaos Control

A New Ball Game in Nuclear Physics

How Peptide Hormones Get Ready for Work

Praying Mantises Play Top Gun

Sex and the Single Gene

Deep Rocks Stir the Mantle Pot

Articles

Reproductive Behavior and Health in Consanguineous Marriages: A. H. Bittles, W. M. Mason, J. Greene, N. A. Rao

Neutron Scattering: Progress and Prospects: J. D. Axe

Diversity of G Proteins in Signal Transduction: M. I. Simon, M. P. Strathmann, N. Gautam

Research Articles

Zinc Finger–DNA Recognition: Crystal Structure of a Zif268-DNA Complex at 2.1 Å: N. P. Pavletich and C. O. Pabo

A New Cofactor in a Prokaryotic Enzyme: Tryptophan Tryptophylquinone as the Redox Prosthetic Group in Methylamine Dehydrogenase: W. S. McIntyre, D. E. Wemmer, A. Chistoserdov, M. E. Lidstrom
COVER Crystal structure of a zinc finger–DNA complex from the mouse protein Zif268. The view is down the axis of the double-helical DNA and emphasizes the symmetry of the complex. The DNA is blue; individual zinc finger domains are red, yellow, and purple; and zinc atoms are light blue. Similar DNA-binding domains occur in a large family of eukaryotic regulatory proteins. See page 809. [Photograph by N. P. Pavletich and C. O. Pabo]

Reports

825 Geometry, Topology, and Universality of Random Surfaces: J. R. Banavar, A. Maritan, A. Stella
827 Ultradeep (>300 Kilometers) Ultramasic Xenoliths: Petrological Evidence from the Transition Zone: V. Sautter, S. E. Haggerty, S. Field
830 In Situ Biodegradation: Microbiological Patterns in a Contaminated Aquifer: E. L. Madsen, J. L. Sinclair, W. C. Ghiorese
833 Control of doublesex Alternative Splicing by transformer and transformer-2 in Drosophila: K. Hoshijima, K. Inoue, I. Higuchi, H. Sakamoto, Y. Shimura
836 Solution Structure of FKBP, a Rotamase Enzyme and Receptor for FK506 and Rapamycin: S. W. Michnick, M. K. Rosen, T. J. Wandless, M. Karplus, S. L. Schreiber
842 HBV X Protein Alters the DNA Binding Specificity of CREB and ATF-2 by Protein-Protein Interactions: H. F. Maguire, J. P. Hoeffler, A. Siddiqui
844 Inhibition of PDGF β Receptor Signal Transduction by Coexpression of a Truncated Receptor: H. Ueno, H. Colbert, J. A. Escobedo, L. T. Williams
848 FTZ-F1, a Steroid Hormone Receptor–Like Protein Implanted in the Activation of fushi tarazu: G. Lavorgrna, H. Ueda, J. Clos, C. Wu
851 Ca²⁺ Permeability of KA-AMPA–Gated Glutamate Receptor Channels Depends on Subunit Composition: M. Hollmann, M. Hartley, S. Heinemann
856 Identification of a Peptide Specific for Aplysia Sensory Neurons by PCR-Based Differential Screening: J.-F. Brunet, E. Shapiro, S. A. Foster, E. R. Kandel, Y. Inno

Technical Comment

860 Land Plants and Weathering: J. M. Robinson; R. A. Berner

Book Reviews

863 Physical Chemistry from Ostwald to Pauling, reviewed by R. Fiedel
Meteorology in America, 1800–1870, B. Sinclair
Fundamentals of Molecular Evolution, M. T. Clegg
Books Received

Products & Materials

866 Computer Vision Software • Custom Peptide Synthesis • Monoclonal Antibodies • Sample Preparation Kits • Tracking Software • Phosphorylated Protein Enrichment Kit • Molecular Biology Buffers and Reagents • Literature