NEWS & COMMENT

Salk: Under New Management 1036
New Satellite Puts Japan in Top Tier of Remote Sensing 1038
Promega Wins Round in Fight Over Taq 1039
Russian Science: Fortov Named to New Post; Saltykov Out 1039
More Monkey Business Alleged at NYU 1040
Mars Missions: 2003 Is Earliest to Retrieve Samples 1040
Scientists Plan Mercury Probe and Earth Satellite Campaign 1041

RESEARCH NEWS

Life's Last Domain 1043
Exploring Biodiversity's Benefits 1045
Getting Familiar With the Top Quark 1046
Lattices May Put Security Codes on a Firmer Footing 1047
Galileo Gazes at Jupiter and Its Moons 1048

PERSPECTIVES

Volcanic Dilemma: Flow or Blow? 1054
D. B. Dingwell

An Excellent Lightness 1055
T. D. Albright

Small Nucleolar RNAs Guide Ribosomal RNA Methylation 1056
D. Tollervey

ARTICLE

Complete Genome Sequence of the Methanogenic Archaeon, Methanococcus jannaschii 1058

DEPARTMENTS

THIS WEEK IN SCIENCE 1023

EDITORIAL
Mortgaging Science's Future
A. G. Kraut 1027

LETTERS
“Environmental Estrogens”; A. M. Shapiro • German Education: W. Zemann; S. Brody; M. Philipp • Turbulence Hits Wall: C. Sleicher, A. E. Perry • California Civil Rights: Stealth Clause: L. Johns • Streetcar Theory and Long-Term Evolution: P. Hammerstein 1029

SCIENCESCOPE 1035

RANDOM SAMPLES 1049
Sociology’s “Biophobia” • Dutch Cats Killed by Chicken Mix • MEDLINE Back on Track • Fish Fans Beware • The Brain as Orchestra • NO Linked to Malaria Immune Response

BOOK REVIEWS 1052
Why Things Bite Back, reviewed by L. Winner • Prion Diseases, P. Gambetti • Prions Prions Prions • Books Received

PRODUCTS & MATERIALS 1115

AAAS Board of Directors
Rita R. Colwell
Retiring President, Chairman
Jane Lubchenco
President
Mildred S. Dresselhaus
President-elect
Sheila Jasanoff
William A. Lester Jr.
Simon A. Levin
Marcia C. Linn
Michael J. Novacek
Anna C. Roosevelt
Jean E. Taylor
Nancy S. Wexler
William T. Golden
Treasurer
Richard S. Nicholson
Executive Officer

1020

SCIENCE • VOL. 273 • 23 AUGUST 1996

SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue, NW, Washington, DC 20005. Periodicals Mail postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 1996 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): $102 ($55 allocated to subscription); Domestic institutional subscription (51 issues): $250. Foreign postage extra: Mexico, Caribbean (surface mail) $55; other countries (air assist delivery) $90. First class, airmail, student, and emeritus rates on request. Canadian rates with GST available upon request, GST #1254 88 122. Printed in the U.S.A.
The genome of *Methanococcus jannaschii* is the first one of the Archaea domain that has been completed by whole-genome shotgun sequencing at The Institute for Genomic Research. This provides the first oppor-
tunity for large-scale comparisons of the genetic components from all principal domains—Eukaryotes, Bacteria, and Archaea. See the article on page 1058 and the News story on page 1043.

**RESEARCH ARTICLES**

Universal Quantum Simulators 1073
S. Lloyd

A Crosslinked Cofactor in Lysyl Oxidase: Redox Function for Amino Acid Side Chains

**REPORTS**

Evidence for Supersonic Turbulence in the Upper Atmosphere of Jupiter

Rapid Variations in Atmospheric Methane Concentration During the Past 110,000 Years
E. J. Brook, T. Sowers, J. Orchard

Late Pleistocene Desiccation of Lake Victoria and Rapid Evolution of Cichlid Fishes

Simultaneous Measurement of Local Gain and Electron Density in X-ray Lasers

BTK as a Mediator of Radiation-Induced Apoptosis in DT-40 Lymphoma B Cells

Corticofugal Modulation of Time-Domain Processing of Biosonar Information in Bats
J. Yan and N. Suga

The Representation of Brightness in Primary Visual Cortex
A. F. Rossi, C. D. Rittenhouse, M. A. Paradiso

Pilus Assembly by Agrobacterium T-DNA Transfer Genes
K. J. Fullner, J. C. Lara, E. W. Nester

Role of Postreplicative DNA Mismatch Repair in the Cytotoxic Action of Thioguanine

Selective Activation of Calcium Permeability by Aspartate in Purkinje Cells
M. Yuzaki, D. Forrest, T. Curran, J. A. Connor

**On the Web**
