



**748**

The Republican budget at the halfway point

## NEWS

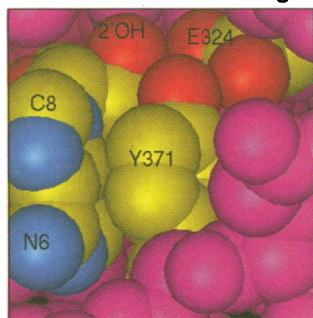
- House Puts Its Stamp on the Budget **748**
- Robert Walker: The Speaker's Right Hand on Science **749**
- Gene Therapy: NIH Picks Three Gene Vector Centers **751**
- Who Owns Results of Russian Science? **752**
- In the Fruit Fly, Cell Death Genes May Come in Pairs **753**
- Remains in Spain Now Reign As Oldest Europeans  **754**
- Malaria: How the Parasite Disguises Itself **755**
- To Learn the Universe's Fate, Observers Clock Its Slowdown **756**

## PERSPECTIVE

- Regulation of Ion Channels by ABC Transporters That Secrete ATP  **805**  
Q. Al-Awqati

**807**

Receptor for cyclic AMP second messenger



## RESEARCH ARTICLE

- Regulatory Subunit of Protein Kinase A: Structure of Deletion Mutant with cAMP Binding Domains **807**  
Y. Su, W. R. G. Dostmann, F. W. Herberg, K. Durick, N.-h. Xuong, L. Ten Eyck, S. S. Taylor, K. I. Varughese

## REPORTS

- Controlled Acceleration and Inhibition of Bergman Cyclization by Metal Chlorides **814**  
B. P. Warner, S. P. Millar, R. D. Broene, S. L. Buchwald
- Confinement-Induced Phase Transitions in Simple Liquids **816**  
J. Klein and E. Kumacheva
- Osmium-187 Enrichment in Some Plumes: Evidence for Core-Mantle Interaction? **819**  
R. J. Walker, J. W. Morgan, M. F. Horan
- High-<sup>3</sup>He Plume Origin and Temporal-Spatial Evolution of the Siberian Flood Basalts **822**  
A. R. Basu, R. J. Poreda, P. R. Renne, F. Teichmann, Y. R. Vasiliev, N. V. Sobolev, B. D. Turrin
- Lower Pleistocene Hominids and Artifacts from Atapuerca-TD6 (Spain)  **826**  
E. Carbonell, J. M. Bermúdez de Castro, J. L. Arsuaga, J. C. Díez, A. Rosas, G. Cuenca-Bescós, R. Sala, M. Mosquera, X. P. Rodríguez

## DEPARTMENTS

- |  |  |
|--|--|
| <b>THIS WEEK IN SCIENCE</b> <b>737</b>   | <b>SCIENCESCOPE</b> <b>747</b>   |
| <b>EDITORIAL</b> <b>739</b>  | <b>RANDOM SAMPLES</b> <b>759</b>   |
| Equity in Biomedical Research<br>V. W. Pinn  | <b>BOOK REVIEWS</b> <b>859</b>   |
| <b>LETTERS</b> <b>741</b>  | <i>Chasing Dirt</i> , reviewed by J. Golden • <i>Vignettes</i> • <i>Lectures on Solar and Planetary Dynamos</i> and <i>Solar and Planetary Dynamos</i> , P. Gilman • <i>Apoptosis and the Immune Response</i> , D. R. Green • <i>Books Received</i> • <i>Publishers' Addresses</i> |
| Electric Cars and Lead: D. Allen; R. C. Stempel and S. R. Ovshinsky; C. W. Gellings and S. C. Peck; L. Gaines and M. Wang; R. J. Hwang; G. Rubenstein and T. C. Austin; R. H. Socolow; D. Sperling; L. B. Lave, C. T. Hendrickson, F. C. McMichael | <b>PRODUCTS &amp; MATERIALS</b> <b>864</b>   |

## Board of Reviewing Editors

Frederick W. Alt  
Don L. Anderson  
Michael Ashburner  
Stephen J. Benkovic  
Alan Bernstein  
David E. Bloom  
Piet Borst  
Henry R. Bourne  
Michael S. Brown  
James J. Bull

Kathryn Calame  
C. Thomas Caskey  
Dennis W. Choi  
David Clapham  
John M. Coffin  
F. Fleming Crim  
Paul J. Cruzten  
James E. Dahlberg  
Robert Desimone  
Paul T. Englund

Richard G. Fairbanks  
Douglas T. Fearon  
Harry A. Fozzard  
Klaus Friedrich  
Theodore H. Geballe  
Roger I. M. Glass  
Stephen P. Goff  
Peter N. Goodfellow  
Corey S. Goodman  
Ira Herskowitz

Tomas Hökfelt  
Eric F. Johnson  
Stephen M. Kosslyn  
Michael LaBarbera  
Nicole Le Douarin  
Charles S. Levings III  
Alexander Levitzki  
Harvey F. Lodish  
Richard Losick  
Reinhard Lührmann

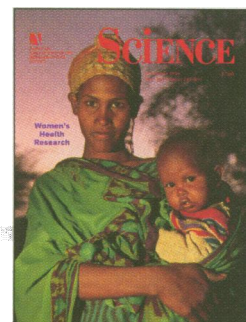
Diane Mathis  
Anthony R. Means  
Shigetada Nakanishi  
Roger A. Nicoll  
Stuart L. Pimm  
Yeshayau Pocker  
Dennis A. Powers  
Ralph S. Quatran  
Martin Raff  
V. Ramanathan

Douglas C. Rees  
T. M. Rice  
David C. Rubie  
Erkki Ruoslahti  
Gottfried Schatz  
Jozef Schell  
Ronald H. Schwartz  
Terrence J. Sejnowski  
Ellen Solomon  
Thomas A. Steitz

Michael P. Stryker  
Robert T. N. Tjian  
Emil R. Unanue  
Geerat J. Vermeij  
Bert Vogelstein  
Arthur Weiss  
Zena Werb  
George M. Whitesides  
Owen N. Witte  
William A. Wulf

This Somali mother and child are emblematic of one of the major policy questions dealt with in this issue's special section (beginning on page 765) on women's health research: In developing countries, how much money should be allocated for infant health and how

much for the prevention of maternal mortality? Elsewhere, the section addresses the subtle gender-based differences in patterns of disease and responses to therapy in developed nations. [Photo: Peter Menzel]



WOMEN'S HEALTH RESEARCH		POLICY FORUMS	
<b>NEWS</b>		Global Approaches to the Promotion of Women's Health	789
Women's Health Research Blossoms	766	G. Mongella	
Estrogen: Key Player in Heart Disease Among Women	771	International Perspectives on Women's Reproductive Health	790
Zeroing In on How Hormones Affect the Immune System	773	C. García-Moreno and T. Türmen	
Attacking the Causes of "Silent" Infertility	775	Women in Clinical Trials: An FDA Perspective	793
Women: Absent Term in the AIDS Research Equation	777	L. A. Sherman, R. Temple, R. B. Merkatz	
Fighting Transmission of HIV to Women	778	The Inclusion of Women in Clinical Trials	795
New Push to Reduce Maternal Mortality in Poor Countries	780	C. L. Meinert	
Rockefeller's Big Prize for STD Test	782	Patients in Research: Not Just Subjects, But Partners	797
		S. J. Heymann	
		<b>ARTICLE</b>	
		Depression in Women: Implications for Health Care Research	799
		M. M. Weissman and M. Olfson	

**Paleomagnetic Age for Hominid Fossils at Atapuerca Archaeological Site, Spain** 830  
J. M. Parés and A. Pérez-González

**Functional Significance of Symmetrical Versus Asymmetrical GroEL-GroES Chaperonin Complexes** 832  
A. Engel, M. K. Hayer-Hartl, K. N. Goldie, G. Pfeifer, R. Hegerl, S. Müller, A. C. R. da Silva, W. Baumeister, F. U. Hartl

**Asymmetrical Interaction of GroEL and GroES in the ATPase Cycle of Assisted Protein Folding** 836  
M. K. Hayer-Hartl, J. Martin, F. U. Hartl

**Growth of Tobacco Protoplasts Stimulated by Synthetic Lipo-Chitooligosaccharides** 841  
H. Röhrig, J. Schmidt, R. Walden, I. Czaja, E. Miklašević, U. Wieneke, J. Schell, M. John

**Structure of the Arabidopsis RPOGene Enabling Dual Specificity Disease Resistance** 843  
M. R. Grant, L. Godiard, E. Straube, T. Ashfield, J. Lewald, A. Sattler, R. W. Innes, J. L. Dangl

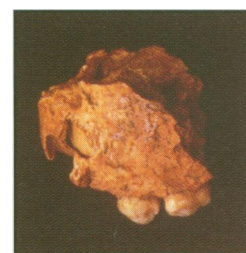
**CFTR as a cAMP-Dependent Regulator of Sodium Channels** 847  
M. J. Stutts, C. M. Canessa, J. C. Olsen, M. Hamrick, J. A. Cohn, B. C. Rossier, R. C. Boucher

**Ultrasound-Mediated Transdermal Protein Delivery** 850  
S. Mitragotri, D. Blankschtein, R. Langer

**Parietal Contributions to Visual Feature Binding: Evidence from a Patient with Bilateral Lesions** 853  
S. R. Friedman-Hill, L. C. Robertson, A. Treisman

## TECHNICAL COMMENTS

**Behavioral Effects and Gene Delivery in a Rat Model of Parkinson's Disease** 856  
O. Isacson; A. I. Geller, J. R. Naegele, K. L. O'Malley, M. J. During



**754, 826 & 830**  
Early European hominids

## AAAS Board of Directors

Francisco J. Ayala  
*Retiring President,*  
Chairman  
Rita R. Colwell  
President  
Jane Lubchenco  
President-elect

William A. Lester Jr.  
Simon A. Levin  
Michael J. Novacek

Anna C. Roosevelt  
Alan Schriesheim  
Jean E. Taylor  
Chang-Lin Tien  
Nancy S. Wexler

William T. Golden  
Treasurer  
Richard S. Nicholson  
Executive Officer

■ **SCIENCE (ISSN 0036-8075) 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. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 1995 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): \$97 (\$50 allocated to subscription). Domestic institutional subscription (51 issues): \$228. Foreign postage extra: Mexico, Caribbean (surface mail) \$53; other countries (air assist delivery) \$93. First class, airmail, student and emeritus rates on request. Canadian rates with GST available upon request, GST #1254 88122. Printed in the U.S.A.

## ■ Indicates accompanying feature

**Change of address:** allow 6 weeks, giving old and new addresses and 11-digit account number. **Postmaster:** Send change of address to *Science*, P.O. Box 2033, Marion, OH 43305-2033. **Single copy sales:** \$7.00 per issue prepaid includes surface postage; bulk rates on request. **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 \$3.00 per article is paid directly to CCC, 27 Congress Street, Salem, MA 01970. The identification code for *Science* is 0036-8075/83 \$3.00. *Science* is indexed in the *Reader's Guide to Periodical Literature* and in several specialized indexes.

# Science

**269 (5225)**

*Science* **269** (5225), 737-865.

**ARTICLE TOOLS**

<http://science.sciencemag.org/content/269/5225>

**PERMISSIONS**

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

---

*Science* (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.