American Association for the Advancement of Science

Science

ISSN 0036-8075 14 SEPTEMBER 1990 VOLUME 249 NUMBER 4974

1223 This Week in Science

Editorial	1225	Sound Bites Versus Sound Thinking
Letters	1227	NIH Office of Scientific Integrity: Policies and Procedures: J. V. HALLUM AND S. W. HADLEY Biomass: Renewable Energy: A. I. BERMAN Balancing American Linguists: R. M. BATEMAN Marx Misstated: V. A. Fulmer; D. E. Koshland, Jr.
Policy Forum	1231	Disposal of High-Level Nuclear Waste: Is It Possible?: K. B. Krauskopf
News & Comment	1235	Howard Schachman Fights Retirement
	1237	Conflict of Interest: PHS Readies New Rules
	1238	Charlie Cantor Gets Kicked Upstairs
	1239	NSF Peer Review: Under Pressure
	1240	Does a Retrovirus Explain Fatigue Syndrome Puzzle? ■ Chronic Fatigue as Chameleon
	1241	Laskers Back for 1991
	1242	Briefings: The Sin of Rivalry ■ The Hazards of Backyard Archeology ■ Abstract Attack Turns into a War ■ Goring Sacred Cows for Education Reform ■ Arctic Science Gets Organized ■ Federal Scientists' Unwanted Vacations ■ More Delays for Shuttle Space Science
Research News	1244	Keck Telescope Ushers in a New Era
	1246	The Climate System as a Ticking Clock
	1248	New Transplant Method Evades Immune Attack
	1249	Toward the Polymer Chip Co-opting the Chemists
Articles	1251	Strong Association Between West African Rainfall and U.S. Landfall of Intense Hurricanes: W. M. Gray
	1256	Spreading of Liquids on Highly Curved Surfaces: D. Quéré, JM. di Meglio, F. Brochard-Wyart
Research Articles	1261	Template Supercoiling by a Chimera of Yeast GAL4 Protein and Phage T7 RNA Polymerase: E. A. OSTRANDER, P. BENEDETTI, J. C. WANG
	1266	Transcription Factor Interactions: Selectors of Positive or Negative Regulation from a Single DNA Element: M. I. DIAMOND, J. N. MINER, S. K. YOSHINAGA,

К. R. Үамамото

The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objectives 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, to advance education in science, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

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 € 1990 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): \$80. Domestic institutional subscription (51 issues): \$150. Foreign postage extra: Canada \$46, other (surface mail) \$46, air mail via Amsterdam \$85. First class, airmail, school-year, and student rates on request. 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 1723, Riverton, NJ 08077. Single copy sales: Current issue, \$3.50; back issues, \$5.00; Biotechnology issue, \$6.00 (for postage and handling, add per copy \$1.00 U.S., \$1.00 all foreign); Guide to Biotechnology Products and Instruments, \$20 (for postage and handling add per copy \$1.00 U.S., \$1.50 Canada, \$2.00 other foreign). 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 the base fee of \$1 per copy plus \$0.10 per page is paid directly to CCC, 27 Congress Street, Salem, Massachusetts 01970. The identification code for Science is 0036-8075/83 \$1 + .10. Science is indexed in the Reader's Guide to Periodical Literature and in several specialized indexes.



COVER Thymus from a diabetic rat in which pancreatic islets (light pink clusters) from a foreign strain have been engrafted. The graft caused blood glucose to return to normal. The islets were not rejected, which indicated the immunologically privileged nature of this novel transplant site. The presence of the foreign tissue also induced unresponsiveness to donor strain transplantation antigens. See page 1293 and related news story, page 1248. [Photomicrography by John E. Tomaszewski]

Reports

- 1273 Vertical Distribution of Water in the Atmosphere of Venus: A Simple Thermochemical Explanation: J. S. Lewis and D. H. Grinspoon
- 1275 Negative Pressure-Temperature Slopes for Reactions Forming MgSiO₃ Perovskite from Calorimetry: E. Ito, M. Akaogi, L. Topor, A. Navrotsky
- 1278 Direct Measurement of Forces Between Linear Polysaccharides Xanthan and Schizophyllan: D. C. RAU AND V. A. PARSEGIAN
- 1281 Fragments of the HIV-1 Tat Protein Specifically Bind TAR RNA: K. M. WEEKS, C. AMPE, S. C. SCHULTZ, T. A. STEITZ, D. M. CROTHERS
- 1285 Site-Specific Gene Expression in Vivo by Direct Gene Transfer into the Arterial Wall: E. G. Nabel, G. Plautz, G. J. Nabel
- 5-Methylcytosine as an Endogenous Mutagen in the Human LDL Receptor and p53 Genes: W. M. RIDEOUT III, G. A. COETZEE, A. F. OLUMI, P. A. JONES
- 1291 Differentiation of Mouse Erythroleukemia Cells Enhanced by Alternatively Spliced c-myb mRNA: B. L. Weber, E. H. Westin, M. F. Clarke
- 1293 Induction of Donor-Specific Unresponsiveness by Intrathymic Islet Transplantation: A. M. Posselt, C. F. Barker, J. E. Tomaszewski, J. F. Markmann, M. A. Choti, A. Naji
- 1295 LFA-3, CD44, and CD45: Physiologic Triggers of Human Monocyte TNF and IL-1 Release: D. S. A. Webb, Y. Shimizu, G. A. Van Seventer, S. Shaw, T. L. Gerrard
- 1298 NKR-P1, a Signal Transduction Molecule on Natural Killer Cells: R. GIORDA, W. A. RUDERT, C. VAVASSORI, W. H. CHAMBERS, J. C. HISERODT, M. TRUCCO
- 1300 Expression and Activity of the POU Transcription Factor SCIP: E. S. Monuki, R. Kuhn, G. Weinmaster, B. D. Trapp, G. Lemke
- 1303 Cloning and Expression of a Rat Brain GABA Transporter: J. Guastella, N. Nelson, H. Nelson, L. Czyzyk, S. Keynan, M. C. Miedel, N. Davidson, H. A. Lester, B. I. Kanner

Technical Comments

1307 Refinement of Eco RI Endonuclease Crystal Structure: A Revised Protein Chain Tracing: Y. Kim, J. C. Grable, R. Love, P. J. Greene, J. M. Rosenberg

Book Reviews

Science and Russian Culture in an Age of Revolution, reviewed by D. P. Todes ■ The Legacy of Chernobyl and The Social Impact of the Chernobyl Disaster, M. J. Sagers ■ Ecological Experiments, H. M. WILBUR ■ Books Received

Products & Materials

1318 Versatile Electrophoresis System ■ Benchtop Incubators ■ Statistics Program for the Macintosh ■ Hybridization System ■ Porous Tissue Culture Insert ■ Temperature Cycler ■ Software Libraries ■ Literature

Board of Directors

Richard C. Atkinson Retiring President, Chairman

Donald N. Langenberg President

Leon M. Lederman President-elect Mary Ellen Avery Francisco J. Ayala Eugene H. Cota-Robles Robert A. Frosch Joseph G. Gavin, Jr. John H. Gibbons Beatrix A. Hamburg Florence P. Haseltine William T. Golden

Richard S. Nicholson Executive Officer

Treasure

Editorial Board

Elizabeth E. Bailey
David Baltimore
William F. Brinkman
E. Margaret Burbidge
Pierre-Gilles de Gennes
Joseph L. Goldstein
Mary L. Good
F. Clark Howell
James D. Idol, Jr.
Leon Knopoff
Oliver E. Nelson
Yasutomi Nishizuka
Helen M. Ranney
David M. Raup
Howard A. Schneiderman
Larry L. Smarr
Robert M. Solow
James D. Watson

Board of Reviewing Editors

John Abelson
Don L. Anderson
Stephen J. Benkovic
Gunter K-J Blobel
Floyd E. Bloom
Henry R. Bourne
James J. Bull
Kathryn Calame
Charles R. Cantor
Ralph J. Cicerone
John M. Coffin
Robert Dorfman
Bruce F. Eldridge
Paul T. Englund
Fredric S. Fay
Harry A. Fozzard

Roger I. M. Glass Stephen P. Goff Corey S. Goodman Stephen J. Gould Eric F. Johnson Stephen M. Kosslyn Konrad B. Krauskopi Charles S. Levings III Richard Losick Joseph B. Martin John C. McGiff Anthony R. Means Mortimer Mishkin Roger A. Nicoll William H. Orme-Johnson III Carl O. Pabo Yeshayau Pocker

Theodore H. Geballe

Dennis A. Powers Erkki Ruoslahti Thomas W. Schoener Ronald H. Schwartz Terrence J. Sejnowski Robert T. N. Tijan Virginia Trimble Emil R. Unanue Geerat J. Vermeij Bert Vogelstein Harold Weintraub Irving L. Weissman Zena Werb George M. Whitesides Owen N. Witte William B. Wood Keith Yamamoto



Science 249 (4974), 1223-1318.

ARTICLE TOOLS http://science.sciencemag.org/content/249/4974

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

Use of this article is subject to the Terms of Service