

1148

Prospects for animal organ transplants

NEWS & COMMENT

- Xenotransplants Set to Resume **1148**
Animal Organ Transplants Raise Ethical Issues **1149**
Immune Reconstitution for AIDS **1150**
- Networking Gene Therapy **1151**
- Science and Technology Policy Headed for Political Maelstrom **1152**
- Rivals for Power Lay Down the Law **1153**
- AIDS Vaccines: At Conference, Hope for Success Is Further Attenuated **1154**
- Proposed Global Network for Ecology Data Stirs Debate **1155**

RESEARCH NEWS

- Electronic Battle Over Solar Neutrinos **1157**
- Possible Dino DNA Find Is Greeted with Skepticism **1159**
- Panel Hopes Compromise Will Bail Out Neutron Source **1160**
- Ninety Ways to Be a Mammal **1161**
- Dioxins Dominate Denver Gathering of Toxicologists **1162**
- Crowding Innovation Out of Evolution **1163**

PERSPECTIVES

- LTP: Desperately Seeking Resolution **1195**
R. Malinow

SCIENCE IN JAPAN: CREATING NEW STRUCTURES

NEWS

- Science Weathers Economic Storm **1170**
Japan Aims to Link Islands of Science Information **1172**
- Universities and Companies Learn Benefits of Teamwork **1174**
- Bright Science City Dreams Face Sober Economic Realities **1176**
Too Many Science Cities? **1177**
- Universities Throw Open Doors to Outside Scrutiny **1178**
- Japan Learns to Accommodate Its Global Research Partners **1184**
- Focus on Biotechnology**
Agricultural Biotech Blooms Late **1184**

- How ATP Drives Proteins Across Membranes **1197**
W. T. Wickner

ARTICLES

- Composite Fermions in the Quantum Hall Regime **1199**
J. K. Jain
- The Sverdlovsk Anthrax Outbreak of 1979 **1202**
M. Meselson, J. Guillemin, M. Hugh-Jones, A. Langmuir, I. Popova, A. Shelokov, O. Yampolskaya

DEPARTMENTS

- THIS WEEK IN SCIENCE** **1137**
- EDITORIAL** **1139**
Progress in Japanese Science
- LETTERS** **1141**
Risk from Low-Dose Exposures: A. M. Monro; C. J. Portier, G. W. Lucier, L. Edler; R. P. Zendzian; M. Fox and M. Meselson; B. S. Strauss; R. C. von Borstel; O. Ennemoser
- SCIENCESCOPE** **1147**
- RANDOM SAMPLES** **1156**
- BOOK REVIEWS** **1261**
Naturalist, reviewed by H. W. Greene • *Przewalski's Horse*, J. Berger • Other Books of Interest • Vignettes • Books Received
- PRODUCTS & MATERIALS** **1269**

Board of Reviewing Editors

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

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

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

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

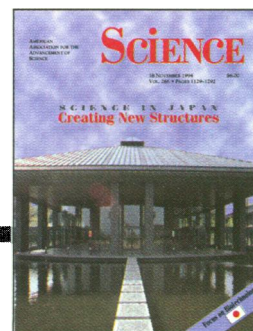
Diane Mathis
Anthony R. Means
Shigetada Nakanishi
Roger A. Nicoll
Stuart L. Pimm
Yeshayau Pocker
Dennis A. Powers
Ralph S. Quatrano
V. Ramanathan
Douglas C. Rees

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
Harold Weintraub
Arthur Weiss
Zena Werb
George M. Whitesides
Owen N. Witte
William A. Wulf

The lavishly appointed pavilion at the International Institute for Advanced Studies, the flagship of the fledgling Kansai Science City, is intended to be a meeting ground for scholars from around the world. But its emptiness since it opened 17 months ago symbolizes

the unfulfilled dreams of the Japanese science establishment. The new structures that are shaping science in Japan are the focus of this year's special issue on Science in Asia. See the special section beginning on page 1169. [Photo: Caroline Parsons/Syigma]



Japan Picks a Winner in the Rice Genome Project 1186
Send in the Clones 1187

MITI Ecoprojects Target the Desert—And the Home Front 1188

Profiles

Chemist Goes Her Own Way 1179

A Straight Line to Success 1180

A Sense of What to Look For 1182

Blazing a Collaborative Trail 1183

Biologist on the Fas(t) Track 1185

POLICY FORUM

New Developments in the Science Policy of Japan 1189
S. Nagakura and H. Kikumoto

RESEARCH ARTICLE

Analysis and Expression of a Cloned Pre-T Cell Receptor Gene 1208

C. Saint-Ruf, K. Ungewiss, M. Groettrup, L. Bruno, H. J. Fehling, H. von Boehmer

REPORTS

Ultrahigh-Resolution X-ray Tomography 1213
W. S. Haddad, I. McNulty, J. E. Trebes, E. H. Anderson, R. A. Levesque, L. Yang

Self-Assembly of *n*-Alkyl Thiols as Disulfides on Au(111) 1216
P. Fenter, A. Eberhardt, P. Eisenberger

Growth and Sintering of Fullerene Nanotubes 1218

D. T. Colbert, J. Zhang, S. M. McClure, P. Nikolaev, Z. Chen, J. H. Hafner, D. W. Owens, P. G. Kotula, C. B. Carter, J. H. Weaver, A. G. Rinzler, R. E. Smalley

A Phase of Liposomes with Entangled Tubular Vesicles 1222

S. Chiruvolu, H. E. Warriner, E. Naranjo, S. H. J. Idziak, J. O. Rädler, R. J. Plano, J. A. Zasadzinski, C. R. Safinya

Encapsulation of Guest Molecules into a Dendritic Box 1226

J. F. G. A. Jansen, E. M. M. de Brabander-van den Berg, E. W. Meijer

DNA Sequence from Cretaceous Period Bone Fragments 1229

S. R. Woodward, N. J. Weyand, M. Bunnell

Circadian Clock Mutants of Cyanobacteria 1233

T. Kondo, N. F. Tsinoremas, S. S. Golden, C. H. Johnson, S. Kutsuna, M. Ishiura

Activation of the Myogenic Lineage by MEF2A, a Factor That Induces and Cooperates with MyoD 1236

S. Kaushal, J. W. Schneider, B. Nadal-Ginard, V. Mahdavi

Two Binding Orientations for Peptides to the Src SH3 Domain: Development of a General Model for SH3-Ligand Interactions 1241

S. Feng, J. K. Chen, H. Yu, J. A. Simon, S. L. Schreiber

A Central Role of Salicylic Acid in Plant Disease Resistance 1247

T. Delaney, S. Uknes, B. Vernooij, L. Friedrich, K. Weymann, D. Negrotto, T. Gaffney, M. Gut-Rella, H. Kessmann, E. Ward, J. Ryals

The Role of Hsp70 in Conferring Unidirectionality on Protein Translocation into Mitochondria 1250

C. Ungermaier, W. Neupert, D. M. Cyr

Modulation of Epithelial Cell Growth by Intraepithelial $\gamma\delta$ T Cells 1253

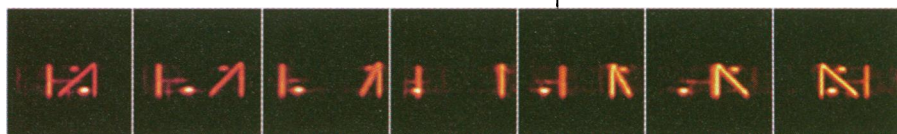
R. Boismenu and W. L. Havran

TECHNICAL COMMENTS

Diamond-Like Carbon Bonds 1256
W. S. Bacsa; P. A. Bianconi

1213

3D X-ray vision



AAAS Board of Directors

Eloise E. Clark
*Retiring President,
Chairman*
Francisco J. Ayala
President
Rita R. Colwell
President-elect

William A. Lester Jr.
Simon A. Levin
Anna C. Roosevelt

Alan Schriesheim
Jean'ne M. Shreeve
Chang-Lin Tien
Warren M. Washington
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 © 1994 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): \$92 (\$50 allocated to subscription). Domestic institutional subscription (51 issues): \$215. Foreign postage extra: Mexico, Caribbean (surface mail) \$50; other countries (air assist delivery) \$95. 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: \$6.00 per issue prepaid includes surface postage; Guide to Biotechnology Products and Instruments, \$20. 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, MA 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.

Science

266 (5188)

Science **266** (5188), 1137-1267.

ARTICLE TOOLS

<http://science.sciencemag.org/content/266/5188>

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.