NEWS & COMMENT

A Fleet Too Good to Afford?  1486
Breaking the Ice on Cooperation  1487
Nuclear Waste: Study Inflames  1488
Ward Valley Controversy  1489
New Zealand's Leap Into Gene Therapy  1490
Giant Merger Creates Biotech Power  1491
Panel Urges NIH to Loosen Its Grip on AIDS Research  1492
Japan: Support Builds for Curbs on Lifetime Faculty Posts  1493

RESEARCH NEWS

Misfolding the Way to Disease  1494
Does the Sun Trigger Outbursts From Earth's Magnetosphere?  1495
Biodiversity Is a Boon to Ecosystems, Not Species  1496
Protein Motors May Drive Cells on Route to Specialization  1497
Rat Study Sheds Light on Cocaine Craving  1498

PERSPECTIVES

Molecules on Ice  1500
D. C. Clary  1509

DEPARTMENTS

THIS WEEK IN SCIENCE  1473
EDITORIAL  1477
Protein Kinesis  1478
LETTERS  1479
Rohrbacher re Gore: D. Rohrbacher • AIDS and Ethnicity: M. Males; S. McMillan; P. S. Rosenberg •

1486
Rough seas for oceanography

1560
Glow with the flow

Iron Metabolism in Eukaryotes: Mars and Venus at It Again  1510
J. Kaplan and T. V. O'Halloran
V(D)J Recombination and Transposition: Closer Than Expected  1512
N. L. Craig

ARTICLES

PROTEIN KINESIS

Nucleocyttoplasmic Transport  1513
D. Gorlich and I. W. Mattaj
Common Principles of Protein Translocation Across Membranes  1514
G. Schatz and B. Dobberstein

Coat Proteins and Vesicle Budding  1515
R. Schekman and L. Orci
Phosphoinositides as Regulators in Membrane Traffic  1516
P. De Camilli, S. D. Emr, P. S. McPherson, P. Novick

Targeting of Motor Proteins  1517
R. B. Vallee and M. P. Sheetz

RESEARCH ARTICLES

Toward an Astrophysical Theory of Chondrites  1544
F. H. Shu, H. Shang, T. Lee

A Permease-Oxidase Complex Involved in High-Affinity Iron Uptake in Yeast  1545
R. Stearman, D. S. Yuan, Y. Yamaguchi-Iwasa, R. D. Klausner, A. Dancis

Board of Reviewing Editors

Frederick W. Alt
Don L. Anderson
Michael Ashburner
Stephan J. Benkovic
Alan Bernstien
David E. Bloom
Piet Borst
Henry R. Bourne
Michael S. Brown
James J. Bull
Kathryn Calame
Dennis W. Choi

David Clapham
Adrienne E. Clarke
John M. Coffin
F. Flemming Crim
Paul J. Crutzen
James D. Dalberg
Robert Desmonde
Paul T. Englund
G. Ertl
Richard G. Farbanks
Douglas T. Fearon
Harry A. Fozard
Roger I. M. Glass
Stephen P. Goff
Peter N. Goodfellow
Corey S. Goodman
Peter Gruss
Philip C. Hanawalt
Nobutaka Hirokawa
Tomoko Hoshida
Takeshi Hori
Susan D. Iverson
Eric F. Johnson
Stephen M. Kosslyn

Michael LaBarbera
Nicole Le Douarin
Charles S. Lovings III
Harvey F. Lodish
Richard Losick
Reinhard Lührmann
Ruth Lynden-Bell
Seth Mariner
Diane Mathis
Anthony R. Means
Shigetada Nakanishi
Kim Nasmyth

Roger A. Nicoll
Staffan Normark
Stuart L. Pirrie
Yeshayahu Pocker
Ralph S. Quatrano
Martin Raff
V. Ramanathan
Douglas C. Rees
T. M. Rice
David G. Rubie
Erikk Ruoslahti
Gottfried Schatz

Josef Schell
Ronald H. Schwartz
Terences J. Sajnowski
Thomas A. Steitz
Michael P. Strikyer
Tomoyuki Takahashi
Masatoshi Takeichi
Keiji Tanaka
Robert T. N. Tian
Yoshinori Tokura
Emri R. Unanue
Gunter J. Vormehr

Bert Vogelstein
Arthur Weiss
Zora Werb
George M. Whitesides
Owen N. Witte
William A. Wulf

1470
SCIENCE • VOL. 271 • 15 MARCH 1996
Cryosection of a yeast nucleus (long axis, 1.6 micrometers) immunolabeled to reveal the sites of the nuclear envelope that are associated with the coat protein coatomer. Antibodies to coatomer were applied to the section, then the bound antibodies were identified in a second step with the help of electron-dense gold particles that appear as tiny dots on the nuclear surface. See page 1526, the special section on Protein Kinesis beginning on page 1513, and the News story on page 1493. [R. Schekman and L. Orci]

REPORTS

Protein Folding Triggered by Electron Transfer
T. Fascher, J. P. Chesick, J. R. Winkler, H. B. Gray
1558

Microsecond Catalytic Partial Oxidation of Alkanes
D. A. Goetsch and L. D. Schmidt
1560

Molecular Dynamics Simulation of Hydrochloric Acid Ionization at the Surface of Stratospheric Ice
B. J. Gertner and J. T. Hynes
1563

Structure and Evolution of Lithospheric Slab Beneath the Sunda Arc, Indonesia
S. Widiyantoro and R. van der Hilst
1566

The Majorite-Pyrox + Magnesiowüstite Assemblage: Constraints on the History of Shock Veins in Chondrites
M. Chen, T. G. Sharp, A. E. Goodes, B. Wopenka, X. Xie
1570

Iridium Metal in Chiccubxlap Impact Melt: Forensic Chemistry on the K-T Smoking Gun
1573

Exchange of Carbon Dioxide by a Deciduous Forest: Response to Interannual Climate Variability
1576

Human Foamy Virus Replication: A Pathway Distinct from That of Retroviruses and Hepadnaviruses
S. F. Yu, D. N. Baldwin, S. R. Gwynn, S. Yendapalli, M. L. Linial
1579

HIV-1 Dynamics in Vivo: Virion Clearance Rate, Infected Cell Life-Span, and Viral Generation Time
1582

Opposite Modulation of Cocaine-Seeking Behavior by D1- and D2-Like Dopamine Receptor Agonists
D. W. Self, W. J. Barnhart, D. A. Lehman, E. J. Nestler
1589

Coordination of Three Signaling Enzymes by AKAP79, a Mammalian Scaffold Protein
T. M. Klauck, M. C. Faux, K. Labudda, L. K. Langeberg, S. Jaken, J. D. Scott
1592

Similarities Between Initiation of V(DJ) Recombination and Retroviral Integration
D. C. van Gent, K. Mizuuchi, M. Gellert
1595

Cell Cycle Regulation of E2F Site Occupation in Vivo
J. Zwicker, N. Liu, K. Engeland, F. C. Lucibello, R. Müller
1597

Rapid Degradation of the G1 Cyclin Cln2
S. Lanker, M. H. Valdivieso, C. Wittenberg

Control of the Gene optomotor-blind in Drosophila Wing Development by decapentaplegic and wingless
S. Grimm and G. O. Pflugfelder

TECHNICAL COMMENTS

Long-Term Potentiation in the CA1
Hippocampus
R. Malinow and Z. F. Mainen; S. A. Siegelbaum and V. Y. Bolshakov

Estimating Geologic Age from Cosmogenic Nuclides: An Update
F. R. Bieman and E. M. Clapp

Pliocene Extinction of Antarctic Pectinid Mollusks
F. A. Berkman and M. L. Prentice

Winging it

AAAS Board of Directors
Rita R. Colwell
Rising President, Chairman
Jane Lubchenco
President
Mildred S. Dresselhaus
President-elect
SheilaJasanoff
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
Richard S. Nicholson
Treasurer
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 © 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): $162 ($55 allocated to subscription). Domestic institutional subscription (51 issues): $525. Foreign postage extra: Mexico, Caribbean (surface mail) $55; other countries (air assist delivery) $70. First class, airmail, student, and emeritus rates on request. Canadian rates with GST available upon request, GST #125488122. Printed in the U.S.A.

Change of address: allow 4 weeks, giving old and new addresses and 6-digit account number. Postmaster: Send change of address to Science, P.O. Box 1811, Danbury, CT 06813-1811. 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 to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that $4.00 per article is paid directly to CCC, 222 Rosewood Drive, Danvers, MA 01923. The identification code for Science is 0036-8075/83$4.00. Science is indexed in the Reader's Guide to Periodical Literature and in several specialized indexes.
Science 271 (5255), 1473-1609.