NEWS & COMMENT

R&D Policy That Emphasizes the ‘D’ 1816
Technology Boosting: A Checkered History
NIST: Measuring Up to a New Task

NIH Adds an Extra Layer of Review for Sensitive Grants
Eyeing a Project’s Ethics

AIDS Vaccines: MicroGeneSys Withdraws From Trial

Engineering Academy Elects New Members 1822

RESEARCH NEWS

Plugging a Cosmic Information Link 1824
Aging Twins Offer Clues to Late-Onset Diseases
What the Twin Studies Might Tell Us

Enzyme May Blunt Cocaine’s Action 1828
The Search for Liver Stem Cells Picks Up 1829

POLICY FORUM

Integrated Assessment of Climate Change 1813
H. Dowlatshahi and M. G. Morgan

PERSPECTIVE

Protein Prenylation: A Mediator of Protein-Protein Interactions
C. J. Marshall

ARTICLES

Dynamics of Elliptical Galaxies 1867
D. Merritt

What Do We Learn from Neutrinos? 1872
J. Steinberger

RESEARCH ARTICLE

Regional Ground-Water Mixing and the Origin of Saline Fluids: Midcontinent, United States 1877
M. Musgrove and J. L. Banner

DEPARTMENTS

THIS WEEK IN SCIENCE 1805
EDITORIAL 1807
LETTERS 1809


SCIENCESCOPE 1815

RANDOM SAMPLES 1823
Administration Drops Indirect Cost Cuts • Europe First With New X-Ray Source • A New Look at Racehorse Genetics

INSIDE AAAS 1922

BOOK REVIEWS 1923
Heisenberg’s War, reviewed by J. Bernstein • The Major Gods of Ancient Yucatan, J. Kowalski • Linguistic Diversity in Space and Time, W. H. Baxter • Pin the Sky, J. Borwein and P. Borwein • Vignettes: Obscurer Vices • Books Received

AAAS Board of Directors

F. Sherwood Rowland
Retiring President, Chairman
Ernest L. Clark
President
Francisco J. Ayala
President-elect
Robert A. Frosh
Treasurer
Florence P. Hasseltine
William A. Lester, Jr.

John Abelson
Frederick W. Alt
Don L. Anderson
Stephen J. Binkovic
David E. Bloom
Paul L. Bloom
Henry R. Bourne
James J. Bull
Kathryn Calame
C. Thomas Caskey
Dennis W. Choi

John M. Coffin
Bruce F. Eldridge
Paul T. Englund
Richard G. Farberks
Douglas T. Feen
Harry A. Fozard
Victor R. Fuchs
Theodore H. Geballe
Margaret J. Geller
John C. Gerhart
Roger I. M. Glass

Stephen P. Goff
Corey S. Goodman
Stephen J. Gould
Ira Herskowitz
Eric F. Johnson
Stephen M. Kosemen
Michael LaBarbera
Charles S. Levings III
Harvey F. Lodish
Richard Losick
Anthony R. Means

Mortimer Mishkin
Roger A. Nicoll
William H. Orme-Johnson III
Stuart L. Pimm
Yeshayahu Pocker
Dennis A. Powers
Ralph S. Quatrano
V. Ramanathan
Douglas C. Rees
Erkki Ruusulaiti
Ronald H. Schwartz

Terrence J. Sejnowski
Thomas A. Steitz
Richard F. Thompson
Robert T. N. Tjian
Emil R. Unanue
Gaetan J. Vermeij
Bert Vogelstein
Harold Wenskaub
Zena Werb
George M. Whitesides
Owen H. Witte
Keith Yamamoto
Transparent surface models of the helical nucleoprotein filaments formed by the yeast RAD51 protein (top) and the bacterial RecA protein (bottom). Within RAD51 filaments, DNA (red) is extended and untwisted in a manner similar to its extension and untwisting in RecA filaments. The homology of these filaments suggests that the structures for recombination in eukaryotes are similar to those in prokaryotes. See page 1896. [Computer graphic: Edward H. Egelman]

REPORTS

The Mechanical Response of Gold Substrates Passivated by Self-Assembling Monolayer Films
R. C. Thomas, J. E. Houston, T. A. Michalske, R. M. Crooks

C60H2: Synthesis of the Simplest C60 Hydrocarbon Derivative
C. C. Henderson and P. A. Cahill

Fabrication and Properties of Free-Standing C60 Membranes

Outgassed Water on Mars: Constraints from Melt Inclusions in SNC Meteorites
H. Y. McSween, Jr., and R. P. Harvey

Structural Relationship of Bacterial RecA Proteins to Recombination Proteins from Bacteriophage T4 and Yeast
R. M. Story, D. K. Bishop, N. Kleckner, T. A. Steitz

Similarity of the Yeast RAD51 Filament to the Bacterial RecA Filament
T. Ogawa, X. Yu, A. Shinohara, E. H. Egelman

Antibody-Catalyzed Degradation of Cocaine
D. W. Landry, K. Zhao, G. X.-Q. Yang, M. Glickman, T. M. Georgiades

Translocation of TCRz Chains into the Lumen of the Endoplasmic Reticulum and Their Degradation
J. Shin, S. Lee, J. L. Strominger

Germ Line Transmission of a Yeast Artificial Chromosome Spanning the Murine α1(I) Collagen Locus
W. M. Strauss, J. Dausman, C. Beard, C. Johnson, J. B. Lawrence, R. Jaenisch

Cyclin-Dependent Regulation of G1 in Mammalian Fibroblasts
M. Ohtsubo and J. M. Roberts

NF-κB Controls Expression of Inhibitor 1xBt2: Evidence for an Inducible Autoregulatory Pathway
S.-C. Sun, P. A. Ganchi, D. W. Ballard, W. C. Greene

Activity-Dependent Regulation of Conductances in Model Neurons
G. LeMasson, E. Marder, L. F. Abbott

An Essential Heparin-Binding Domain in the Fibroblast Growth Factor Receptor Kinase
M. Kan, F. Wang, J. Xu, J. W. Crabb, J. Hou, W. L. McKeelhan

Germ Line Transmission of a Yeast Artificial Chromosome Spanning the Murine α1(I) Collagen Locus
W. M. Strauss, J. Dausman, C. Beard, C. Johnson, J. B. Lawrence, R. Jaenisch

Cyclin-Dependent Regulation of G1 in Mammalian Fibroblasts
M. Ohtsubo and J. M. Roberts

NF-κB Controls Expression of Inhibitor 1xBt2: Evidence for an Inducible Autoregulatory Pathway
S.-C. Sun, P. A. Ganchi, D. W. Ballard, W. C. Greene

Activity-Dependent Regulation of Conductances in Model Neurons
G. LeMasson, E. Marder, L. F. Abbott

An Essential Heparin-Binding Domain in the Fibroblast Growth Factor Receptor Kinase
M. Kan, F. Wang, J. Xu, J. W. Crabb, J. Hou, W. L. McKeelhan

1804

1904

Expression of YAC DNA transmitted through the germ line to generate transgenic mice

Indicates accompanying feature

1904

Expression of YAC DNA transmitted through the germ line to generate transgenic mice

1804