NEWS & COMMENT

Environmental Estrogens Stir Debate 308
Causes Sought for Sperm-Count Drop 309
One Cancer Warrants Closer Look 310
Federal Lobbying: Socities Drop
Opposition to Station
International Fusion Project: Departing
ITER Head Predicts Trouble
Orphan Chimps Won’t Go Back to Nature 312
AIDS Blood-Test Royalties: NIH-Pasteur: 313
A Final Rapprochement!
British Science: Shake-Up Will Leave
Most Labs Intact
Fewer Young Researchers Are Seeking
NIH Grants

RESEARCH NEWS

Self-Assembly Comes Together 316
Evolutionary Biology: A Boost for
“Adaptive” Mutation
CMV-p53 Interaction May Help
Explain Clogged Arteries
Cleaner Manufacturing of Plastics—
With a Bit of Bubbly

DEPARTMENTS

THIS WEEK IN SCIENCE 297
EDITORIAL 299
Evolution of Industrial Research

LETTERS 301
Soviet and Post-Soviet Science: V. R. Baker and
V. S. Finnila: Christie: c. Revele on Global Warming:
J. Lancaster: DOE Peer Review: L. Iannelli:
Noblesse Oblige: F. M. Mins Iii: British Gene Therapy
Center: C. Bland and C. Dollery: Seaborgium: Name
Not Yet Approved by ACS: J. A. Secrist III

AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE

PERSPECTIVES

Computational Metallurgy 332
M. Eberhart
p53: A Glimpse at the Puppet
Behind the Shadow Play
S. Friend

ARTICLES

Prehistoric Cultural Ecology in
Southern Jordan
D. O. Henry
Risking Everything? Risk Behavior,
Behavior Change, and AIDS
P. Aggleton, K. O’Reilly, G. Slutkin, P. Davies

RESEARCH ARTICLE

Crystal Structure of a p53 Tumor 346
Suppressor-DNA Complex: Understanding
Tumorigenic Mutations
Y. Cho, S. Gorina, P. D. Jeffrey, N. P. Pavletich

REPORTS

Dispersion Polymerizations in
Supercritical Carbon Dioxide
J. M. Desimone, E. E. Maury, Y. Z. Menceloglu,
J. B. McClain, T. J. Romack, J. R. Combes
Catalytic Activation of Carbon—Fluorine
Bonds by a Soluble Transition Metal Complex
M. Attenberg and D. Milstein

BOOK REVIEWS

The Namiketome Homo erectus Skeleton,
reviewed by F. H. Smith
Renewable Energy from the Ocean, F. H. Abelson
Understanding Aphasia, R. S. Berndt
Vignettes: Books Received

PRODUCTS & MATERIALS 428

Board of Reviewing Editors

Frederick W. Alt
Don L. Anderson
Michael Ashburner
Stephen J. Benkovic
David E. Bloom
Roy E. Bloom
Peter Borst
Henry R. Bourne
Michael S. Brown
James J. Bull
Kathryn Calame
C. Thomas Caskey
Dennis W. Choi
John M. Coffin
Paul J. Crutzen
James E. Dahlberg
Robert Desomone
Bruce F. Eldridge
Paul T. Englund
Richard G. Fairbanks
Douglas T. Fearon
Harry A. Fozard
Klaus Friedrich
Theodore H. Geisler
John C. Gerhart
Roger I. M. Glass
Stephen P. Gold
Peter N. Goodfellow
Corry 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
Diane Mathis
Anthony R. Means
Shigetada Nakashiki
Roger A. Nicoll
Stuart L. Pimm
Yeshayau Polcher
Dennis A. Powers
Rajesh G. Quatrano
V. Ramasathan
Douglas C. Rees
T. M. Rice
David C. Rubie
Erikki Ruoslahti
Gottfried Schatz
Jozef Schell
Ronald H. Schwartz
Terrence J. Sewiowski
Eileen Siskin
Thomas A. Steitz
Michael P. Styrsky
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 crystal structure of a p53 tumor suppressor–DNA complex reveals that the majority of the tumorigenic mutations occur at or near the protein-DNA interface. The computer drawing shows the core domain of p53 in light blue, the six most frequently mutated amino acids in yellow, the zinc atom in red, and the DNA in blue. See page 346, the Report on page 386, and the Perspective on page 334. [Photo: Y. Cho and N. P. Pavletich]

Probing Single Molecule Dynamics 361
X. S. Xie and R. C. Dunn

Alterations of Single Molecule Fluorescence Lifetimes in Near-Field Optical Microscopy 364
W. P. Ambrose, P. M. Goodwin, J. C. Martin, R. A. Keller

Fine Structure of the Landers Fault Zone: Segmentation and the Rupture Process 367
Y.-G. Li, J. E. Vidale, K. Aki, C. J. Marone, W. H. K. Lee

Stepwise Formation of Multilayered Nanostructural Films from Macromolecular Precursors 370
E. R. Kleinfield and G. S. Ferguson

Size Dependence of a First Order Solid-Solid Phase Transition: The Wurtzite to Rock Salt Transformation in CdSe Nanocrystals 373
S. H. Tolbert and A. P. Alivisatos

First Principles Determination of the Effects of Phosphorus and Boron on Iron Grain Boundary Cohesion 376
R. Wu, A. J. Freeman, G. B. Olson

Synthesis and Properties of a Cuprate Superconductor Containing Double Mercury-Oxygen Layers 380
P. G. Radaelli, M. Marezio, M. Perroux, S. de Brion, J. L. Tholence, Q. Huang, A. Santoro

Crystal Structure of P22 Tailspike Protein: Interdigitated Subunits in a Thermostable Trimer 383
S. Steinbacher, R. Seckler, S. Miller, B. Steipe, R. Huber, P. Reinemer

High-Resolution Structure of the Oligomerization Domain of p53 by Multidimensional NMR 386

Potential Role of Human Cytomegalovirus and p53 Interaction in Coronary Restenosis 391
E. Speir, R. Modali, E.-S. Huang, M. B. Leon, F. Shawl, T. Finkel, S. E. Epstein

Mitotic Regulation of Microtubule Cross-Linking Activity of CENP-E 394
Kinetochore Protein

H. Liao, G. Li, T. J. Yen

Importance of Peptide Amino and Carboxyl Termini to the Stability of MHC Class I Molecules 398
M. Bouvier and D. C. Wiley

Fibrous Mini-Collagens in Hydra Nematocysts 402

Adaptive Mutation by Deletions in Small Mononucleotide Repeats 405
S. M. Rosenberg, S. Longerich, P. Gee, R. S. Harris

Adaptive Reversion of a Frameshift Mutation in Escherichia coli by Simple Base Deletions in Homopolymeric Runs 407
P. L. Foster and J. M. Trimmer

Growth-Promoting Effects of Glycine-Extended Progesterone 396
C. Seva, C. J. Dickinson, T. Yamada

Effect of the Nigrostriatal Dopamine System on Acquired Neural Responses in the Striatum of Behaving Monkeys 410
T. Aosaki, A. M. Graybiel, M. Kimura

Hydra nematocyst structure

Rates of p16 (MTS1) Mutations in Primary Tumors with 9p Loss 415

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. Printed in the U.S.A.