339 This Week in Science

Editorial
341 TPA and PDQ

Letters
349 Uranium Enrichment: B. J. HULL ■ Indictment of Soviet Physicist: G. C. VEZZOLI ■ Is Female Math Anxiety Real?: S. L. SEGAL

News & Comment
351 Congress Considers Upgrading Labs
352 Pork Barrel Unbound?
353 Corporations on Campus
354 Foreign Investors Outstrip U.S.
355 AIDS and Insects
356 Some Refuseniks See No Glasnost
357 Briefing: SSC Deadline Extended ■ “Greens” Challenge French Gene Research ■ France to Boost Research Spending

Research News
358 Who Owns the Human Genome?
361 A Younger Universe Is Seen in the Stars
363 New Tumor Factor May Disrupt Calcium Levels

Articles
384 The Shapes of Random Walks: J. RUDNICK and G. GASPARI

Research Articles
389 The 30-Kilodalton Gene Product of Tobacco Mosaic Virus Potentiates Virus Movement: C. M. DEOM, M. J. OLIVER, R. N. BEACHY
394 Engineering Enzyme Specificity by “Substrate-Assisted Catalysis”: P. CARTER and J. Á. WELLS
Cover  Fragile X-bearing somatic cell hybrids cultured under positive selection for hypoxanthine guanine phosphoribosyl transferase (HGPRT) followed by in situ histochemical staining for glucose-6-phosphate dehydrogenase (G6PD) activity. The G6PD^+ (blue) and G6PD^- (yellow) colonies indicate segregation of the HGPRT and G6PD genes, suggesting chromosome breakage at the fragile X site. See page 420. [Photo by S. T. Warren, Emory University School of Medicine, Atlanta, GA 30322]

Reports

400 Parallel and Serial Processes in Motion Detection: M. Dick, S. Ullman, D. Sagi


405 Severely Impaired Adipsin Expression in Genetic and Acquired Obesity: J. S. Flier, K. S. Cook, P. Usheer, B. M. Spiegelman

409 Linear Plasmids of the Bacterium Borrelia burgdorferi Have Covalently Closed Ends: A. G. Barbour and C. F. Garon

411 Neuronal pp60^src Contains a Six-Amino Acid Insertion Relative to Its Non-Neuronal Counterpart: R. Martinez, B. Mathey-Prevot, A. Bernard, D. Baltimore

415 The Molecular Basis of the Sparse Fur Mouse Mutation: G. Veres, R. A. Gibbs, S. E. Scherer, C. T. Casci

417 Physiological Evidence for Serial Processing in Somatosensory Cortex: T. P. Pons, P. E. Garraghty, D. P. Friedman, M. Mishkin


Book Reviews

441 Coevolution and Systematics, D. J. Futuyma and J. Kim  Gamma-Ray Astronomy, E. W. Stecker  Paleosols, R. D. Steiglitz  Proteins of Excitable Membranes, C. Miller  Books Received

Products & Materials

445 Pascal Subroutine Library  Variable-Speed Shaker  Database of Hazardous Chemicals  Bulk Growth Factors  Portable Personal Computer  Blue-White Screening Kit  Protein-Free Growth Medium  Fully Automated Peptide Synthesis System  Literature

Board of Directors
Robert McC. Adams
Floyd E. Bloom
Mary E. Clutter
Milton B. Dresselhaus
Beatrix A. Hamburg
Donald N. Langenberg
Frank von Hippel
Linda S. Wilson
William T. Golden
Alvin W. Tristram

Editorial Board
Elizabeth E. Bailey
David Baltimore
William F. Brinkman
Philip E. Converse
Joseph L. Goldstein
James D. Idol, Jr.
Leon Knopoff
Seymour Lipset
Oliver E. Nelson
David V. Ragone
David M. Raup
Vere C. Rubin
Larry L. Smarr
Solomon H. Snyder
Robert M. Solow
James D. Watson

Board of Reviewing Editors
John Abelison
Qais Al-Anzi
James P. Allison
Don L. Anderson
Elizabeth H. Blackburn
Floyd E. Bloom
Charles R. Cantor
James H. Clark
Bruce F. Eldridge
Stanley Felcwo
Theodore H. Geisler
Roger I. M. Glass
Stephen P. Goff
Robert B. Goldberg

Corey S. Goodman
Stephen J. Gould
Richard M. Held
Glenda Heppner
Eric F. Johnson
Koradin S. Krauskopf
L. Robert Lehman
Karl L. Mageby
Joseph B. Martin
John C. McGiff
Alton Meister
Mortimer Mishkin
Peter Olson
Gordon H. Ornans
Carl O. Pabo
John S. Pease

Yeshayau Pocker
Jean Paul Revel
James E. Rothman
Thomas C. Schelling
Ronald H. Schwartz
Stephen M. Schwartz
Otto T. Solbrig
Robert T. N. Tjian
Virginia Trimble
Gwenn J. Vernier
Martin G. Weigert
Harold Weintraub
Irving L. Weissman
George M. Whitesides
Owen N. Witte
William B. Wood

24 JULY 1987 TABLE OF CONTENTS 337

Downloaded from http://science.sciencemag.org/ on July 3, 2021