LETTERS
Social Research Support: L. M. Branscomb; Oil Exploration: S. F. Singer; C. A. S. Hall and C. J. Cleveland; “Affordable Science”: Another Perspective: D. R. Breed; Growth in Publishing: D. Fraser................................................. 1448

EDITORIAL
Industrial Recruiting on Campus................................................................. 1455

ARTICLES
Fermentation in the Rumen and Human Large Intestine: M. J. Wolin ............... 1463
The Major Histocompatibility Complex in Man: J. Dausset .......................... 1469

NEWS AND COMMENT
Threat to U.S. Air Power: The Dust Factor .................................................. 1475
Weevil War Simmers Unresolved ................................................................. 1478
Engineering Education Under Stress ......................................................... 1479
Reagan Energy Policy and Other “Myths” .................................................. 1481
Briefings: NIH Plan Relaxes Recombinant DNA Rules; IAEA Divided Over Leadership, Israeli Censure; Scientific Family Under Attack in Russia; Research Council Supports Mining Rule Changes ......................................................... 1482
Can Physicists Clean Up Coal’s Act? ............................................................. 1484

RESEARCH NEWS
Genes That Control Development ............................................................... 1485
Globin Gene Transferred .............................................................................. 1488

BOOK REVIEWS
Savages and Scientists, reviewed by H. Codere: The Biology and Management of Lobsters, K. H. Mann; Geothermal Systems, E. L. Majer; DNA Repair and Mutagenesis in Eukaryotes, C. F. Arlett; Books Received........................................ 1489
REPORTS

Atomic Clouds as Distributed Sources for the Io Plasma Torus: R. A. Brown and W.-H. Ip .................................................. 1493

Acetylcholine Synthesis in Synaptosomes: Mode of Transfer of Mitochondrial Acetyl Coenzyme A: A. M. Benjamin and J. H. Quastel .......... 1495

Primary Structure of a Large Aminoacyl-tRNA Synthetase: S. D. Putney et al. ................................................................. 1497

Familial Retinoblastoma and Chromosome 13 Deletion Transmitted via an Insertional Translocation: L. C. Strong et al. ....................... 1501

Progestosterone Regulation of the Occupied Form of Nuclear Estrogen Receptor: W. C. Okulicz, R. W. Evans, W. W. Leavitt ................. 1503

Cellular Aging: Further Evidence for the Commitment Theory: R. Holliday, L. I. Huschitscha, T. B. L. Kirkwood .............................. 1505

Calcium-Induced Cell Death: Susceptibility of Cardiac Myocytes Is Age-Dependent: R. A. Chizzonite and R. Zak ............................. 1508


Agglutinin from Alfalfa Necessary for Binding and Nodulation by Rhizobium meliloti: A. S. Paa, W. T. Leps, W. J. Brill ....................... 1513

Mutator Activity in Maize: Timing of Its Activation in Ontogeny: D. S. Robertson ........................................................................ 1515

Adenosine Triphosphate–Deficient Erythrocytes of the Egg-Laying Mammal, Echidna (Tachyglossus aculeatus): H. D. Kim et al. ............... 1517


Bodian’s Silver Method Stains Neurofilament Polypeptides: P. Gambetti, L. Autilio-Gambetti, S. Ch. Papasozomenos ............................ 1521

Stepwise Sarcocere Shortening: Analysis by High-Speed Cinemicrography: M. J. Delay et al. .............................................................. 1524

Diurnal Rhythm of Cytoplasmic Estrogen Receptors in the Rat Brain in the Absence of Circulating Estrogens: E. J. Roy and M. A. Wilson ........ 1526

Myelinated Nociceptive Afferents Account for the Hyperalgesia That Follows a Burn to the Hand: R. A. Meyer and J. N. Campbell ............. 1527

Lithium Increases Serotonin Release and Decreases Serotonin Receptors in the Hippocampus: S. L. Treiser et al. ............................ 1529

Plasminogen Activator Release at the Neuronal Growth Cone: A. Krystosek and N. W. Seeds .............................................................. 1532

Technical Comments: Asbestos Surface Charge Heterogeneity and Biological Effects: W. G. Light; J. E. Schiller, S. L. Payne, S. E. Khalafalla .......................... 1534

Cover

Nucleotide sequence of the gene for an aminoacyl-tRNA synthetase. The polypeptide sequence is translated from and shown next to the DNA sequence. Regions of the polypeptide checked by mass spectrometric analyses are indicated by darker shading. The top section (amino terminal) is shown tightly organized into a core which is resistant to proteases, while the bottom half is a looser structure. See page 1497. [Computer-assisted, gene-polypeptide representation by Alan Wechsler, Benson Margulies, Franca Linden, Scott D. Putney, and Paul Schimmel (Massachusetts Institute of Technology Computer Center and Department of Biology, Cambridge 02139)]