LETTERS
Radiosensitivity of Human Cells in vitro: P. S. Furcinitti and P. Todd; Evolutionary Confusion?: G. Nelson

EDITORIAL
National Science Foundation's Other Mission: B. G. Aldridge

ARTICLES
Two Aspects of Scientific Responsibility: J. T. Edsall
Polypeptide-Binding Membrane Receptors: Analysis and Classification: J. Kaplan

NEWS AND COMMENT
U.S. Derails Energy Plan for Third World
Gene Therapy Caught in More Entanglements
Briefing: How to Keep Your Shirt—If You Put It in Genes; Novel Help for the Handicapped; Meet Dr. X, the Jackson Place Science Adviser; NIH Committee Sheds Darkness on UCSD Case; Research on Anomalies

RESEARCH NEWS
Biggest Challenge Since the Double Helix
Math News in Brief: Littlewood Conjecture Resolved; Russian Proves Van der Warden Conjecture; Advance in Integer Programming
New Chemicals Promise Larger Crops

AAAS NEWS
Degree Completion by Women and Minorities in Sciences Increases: B. M. Vetter; Call for Nominees—SFR Award; Puerto Rican Scientists to Meet in Washington; Foreign Graduate Students Attend AAAS Meetings; Energy Needs of Northeast Tribes Subject of Seminar; SWARM Announces Its Spring Meeting; Report from Indian Science Congress; Obituaries

BOOK REVIEWS
Appropriate Technology and Social Values, reviewed by R. S. Rosenbloom; The Large-Scale Structure of the Universe, W. L. Burke; Migrant Birds in the Neotropics, E. W. Stiles; Population Dynamics, D. E. Gill; Books Received
Calibration of the Beginning of the Age of Mammals in Patagonia:
L. G. Marshall et al. ................................................................. 43

Discovery of Natural Gain Amplification in the 10-Micrometer Carbon
Dioxide Laser Bands on Mars: A Natural Laser: M. J. Mumma et al. .... 45

Vasopressin Analogs That Antagonize Antidiuretic Responses by Rats to
the Antidiuretic Hormone: W. H. Sawyer et al. .............................. 49

Chemical Impurity Produces Extra Compound Eyes and Heads in Crickets:
B. T. Walton ................................................................. 51

* Specific Antigen in Serum of Patients with Colon Carcinoma:
H. Koprowski et al. ................................................................. 53

* A Monosialoganglioside Is a Monoclonal Antibody-Defined Antigen of
Colon Carcinoma: J. L. Magnani et al. ........................................ 55

Nitrate Synthesis in the Germfree and Conventional Rat: L. C. Green,
S. R. Tannenbaum, P. Goldman .................................................. 56

Nitrogen-13–Labeled Nitrite and Nitrate: Distribution and Metabolism
After Intratracheal Administration: N. J. Parks et al. ....................... 58

Inherited Primary Hypothyroidism in Mice: W. G. Beamer et al. ......... 61

Gene for Neuraminidase Activity on Mouse Chromosome 17 Near H-2: Pleiotropic
Effects on Multiple Hydrolases: J. E. Womack, D. L. S. Yan, M. Potter ... 63

Malignant Potential of Murine Stromal Cells After Transplantation of
Human Tumors into Nude Mice: D. M. Goldberg and R. A. Pavia ......... 65

Eicosapentaenoic and Arachidonic Acids from Phytophthora infestans
Elicit Fungitoxic Sesquiterpenes in the Potato: R. M. Bostock,
J. A. Kuc, R. A. Laine ................................................................. 67

Geotropism in Corn Roots: Evidence for Its Mediation by Differential
Acid Efflux: T. J. Mulkey and M. L. Evans ................................... 70

Meprobamate Reduces Accuracy of Physiological Detection of Deception:
W. M. Waid et al. ................................................................. 71

Pheromonal Control of Dealation and Oogenesis in Virgin Queen Fire
Ants: D. J. C. Fletcher and M. S. Blum ........................................ 73

Morphiceptin (NH2-Tyr-Pro-Phe-Pro-CONH2): A Potent and Specific
Agonist for Morphine (μ) Receptors: K.-J. Chang et al. .................. 75

Genetic Basis of Migratory Behavior in European Warblers:
P. Berthold and U. Querner ......................................................... 77

Selection of a Novel Connection by Adult Molluscan Neurons:
A. G. M. Bulloch and S. B. Kater ............................................. 79

Sustained Intracerebroventricular Infusion of Brain Fuels Reduces
Body Weight and Food Intake in Rats: J. D. Davis et al. ................. 81

Dominance Hierarchies in Leptothorax Ants: B. J. Cole .................. 83

Temporal Coding of Species Recognition Signals in an Electric Fish:
C. D. Hopkins and A. H. Bass ..................................................... 85

Visual Clastrum: Topography and Receptive Field Properties in the Cat:
H. Sherk and S. LeVay ......................................................... 87

COVER
Head of a 14-day-old cricket with a
normal multifaceted compound eye and
a smaller, extra compound eye above
it. The cricket was treated during the
egg stage with a coal liquefaction fuel.
A trace impurity in commercial sam-
ples of the chemical acidine produces
extra eyes, antennae, and heads in
crickets. Some synthetic fuels derived
from coal also produce this effect
(about ×110). See page 51. [E. G.
O’Neill, Oak Ridge National Labora-
tory, Oak Ridge, Tennessee]