This Week in Science .................................................. 603

LETTERS Emotions and Facial Expression: A. J. Fridlund, A. N. Gilbert; C. E. Izard;
A. N. Burdett; R. B. Zajonc ........................................ 607

EDITORIAL Air Pollution and Acid Rain ................................... 617

ARTICLES Energy Extraction and Use in a Nomadic Pastoral Ecosystem:
M. B. Coughenour et al. ........................................... 619
Conservation Tillage: M. R. Gebhardt, T. C. Daniel, E. E. Schweitzer,
R. R. Allmaras .......................................................... 625
Perspective: Tumor Necrosis Factor (TNF): L. J. Old ................ 630
Structure of the Human Interleukin-2 Receptor Gene: W. J. Leonard et al. ............. 633

NEWS AND COMMENT Patent Dispute Divides AIDS Researchers ........................................ 640
What’s in a Name? ...................................................... 641
HTLV-III and LAV: Similar, or Identical? ................................ 643
Briefing: Reagan Reinterprets the ABM Treaty; Rumors
of China-Iran Trade Cloud Nuke Pact; Surveillance Laws Need
Overhaul; A Plan to Save Tropical Forests ................................ 644
Experts Cast Doubts on X-ray Laser ..................................... 646

RESEARCH NEWS A Potpourri of Membrane Receptors ........................................... 649
New Mysteries at the Galactic Center ...................................... 652
Predictable Quake Damage

BOOK REVIEWS

Non-Proliferation and Safeguarding the Atom, reviewed by W. H. Donnelly; The Intellectual and Social Organization of the Sciences, R. L. Simpson; The Biology of Terrestrial Isopods, R. C. Brusca; Solar Maximum Analysis and Solar-Space Observations and Stellar Prospects, J. B. Zirker; Books Received

REPORTS

The Structure of the Core of the Spiral Wave in the Belousov-Zhabotinskii Reaction: S. C. Müller, T. Plessen, B. Hess

Intracellular Free Calcium Localization in Neutrophils During Phagocytosis: D. W. Sawyer, J. A. Sullivan, G. L. Mandell

High-Frequency Switching of Colony Morphology in Candida albicans: B. Slutsy, J. Buffo, D. R. Soll

Psoriatic Fibroblasts Induce Hyperproliferation of Normal Keratinocytes in a Skin Equivalent Model in Vitro: P. Saitag, B. Coulomb, C. Lebreton, E. Bell, L. Dubertret

Chromosomal Locations of Human Tissue Plasminogen Activator and Urokinase Genes: B. Rajput et al.

Phytochelatins: The Principal Heavy-Metal Complexing Peptides of Higher Plants: E. Grill, E.-L. Winnacker, M. H. Zenk

Wounding and Its Role in RSV-Mediated Tumor Formation: D. S. Dolberg, R. Hollingsworth, M. Hertle, M. J. Bissell

Iron(II) EDTA Used to Measure the Helical Twist Along Any DNA Molecule: T. D. Tullius and B. A. Dombroski

Hypoglycemia-Induced Neuronal Damage Prevented by an N-Methyl-D-Aspartate Antagonist: T. Wieloch

PRODUCTS AND MATERIALS

Cell Culture Labware; Immunoassay; Syringe Filters; Data Recorder; Research Immunoassays; Spectrometer; Literature

COVER Section (4.5 by 4.5 millimeters) of a spiral wave of chemical activity traveling through a 1-millimeter layer of quiescent, excitable Belousov-Zhabotinskii reagent catalyzed by ferroin. The concentration distribution of ferroin was measured by means of a two-dimensional spectrophotometer based on a video camera, a video frame buffer, and a computer. The core of the spiral—a singular site at which the ferroin concentration remains almost constant—is contained within the green circle. The colored curves are Archimedian spirals fitted to iso-intensity levels that correspond to the lowest (blue) and the highest (red) measured intensities and to the intensity at the core (yellow). See page 661.
Science 230 (4726), 603-687.