NEWS AND COMMENT

Everglades Rebound From Andrew 1852
Gene Therapy: Monkey Tests Spark Safety Review 1854
AIDS Patent Dispute: U.S. Officials Say Non on Royalties 1855
Gene Patents: Rumors Fly Over Rejection of NIH Claim 1855
New French Biomedical Center Breaks the Mold 1856
Agencies Split on Nutrition Advice 1857

1860 & 1933
Analysis of ancient DNA

RESEARCH NEWS

Physicists Take Aim at Antihydrogen 1858
A Fast Track to Antihydrogen?

30-Million-Year-Old DNA Boosts an Emerging Field
Science Imitates Art Imitating Science

Could Protons Be Mortal After All? 1862
Hungarian Fossils Stir Debate on Ape and Human Origins
Planetesimal Found Beyond Neptune 1865

DEPARTMENTS

THIS WEEK IN SCIENCE 1841
EDITORIAL 1843
LETTERS 1845

SCIENCESCOPE 1851
Knockout punch to Kaon Factory?

RANDOM SAMPLES
Soviet Biowarfare Apparatus: All Gone! • Newest, Largest Marine Sanctuary • Toshiba and Teachers Launch Contest • Neuroscience and Mental Illness • The Anatomy of Scientific Productivity • Monkeying With NSF’s Basic Mission?

INSIDE AAAS 1862
BOOK REVIEWS 1975
Against the Odds, reviewed by W. K. Mariner • Images of Materials, F. W. Gayle • A Passion for Physics, W. Moore • Vignettes: Performance Tests • Books Received

PRODUCTS & MATERIALS 1983
Atomic force micrograph of a living cell, showing filamentous actin and other internal cellular structures. The ability of the atomic force microscope to "see" inside living cells, coupled with its potential for very high resolution imaging, may make this and related instruments powerful tools for molecular cell biology. See page 1944 and the special section on instrumentation beginning on page 1885. [Micrograph: E. Henderson]

ARTICLES

INSTRUMENTATION

Weighing Naked Proteins: Practical, High-Accuracy Mass Measurement of Peptides and Proteins
B. T. Chait and S. B. H. Kent

Detection of Trace Molecular Species
R. L. Farrow and D. J. Rakestraw

Using Degenerate Four-Wave Mixing
M. G. Radmacher, R. W. Tillmann, M. Fritz, H. E. Gaub

The Cytosensor Microphysiometer: Biological Applications of Silicon Technology

Ultrafast Infrared Spectroscopy
P. O. Stoutland, R. B. Dyer, W. H. Woodruff

RESEARCH ARTICLE

Interactions of Small Nuclear RNA’s with Precursor Messenger RNA During in Vitro Splicing
D. A. Wasserman and J. A. Steitz

REPORTS

Comet Yanaka (1988r): A New Class of Carbon-Poor Comet
U. Fink

Miocene Fossil Hominids and the Chimp-Human Clade
D. R. Begun

DNA Sequences from a Fossil Termite in Oligo-Miocene Amber and Their Phylogenetic Implications
R. DeSalle, J. Gatesy, W. Wheeler, D. Grimaldi

Measurement of Quantum Tunneling Between Chiral Isomers of the Cyclic Water Trimer
N. Fuglino and R. J. Saykally

Discovery of a Peptide-Based Renin Inhibitor with Oral Bioavailability and Efficacy

Actin Filament Dynamics in Living Glial Cells Imaged by Atomic Force Microscopy and Four-Wave Mixing to Develop and Regulate Alternative Splicing of a Transcription Factor Gene
T. Hsu, J. A. Gogos, S. A. Kirsh, F. C. Kafatos

Sequence Discrimination by Alternatively Spliced Isoforms of a DNA Binding Zinc Finger Domain
J. A. Gogos, T. Hsu, J. Bolton, F. C. Kafatos

Inactivation of the p53Δ34-42-Cyclin B Complex by the Human WEE1 Tyrosine Kinase
L. L. Parker and H. Piwnica-Worms

Association of Human Cyclin E with a Periodic G-S Phase Protein Kinase
V. Dulic, E. Lees, S. I. Reed

1894 Spectroscopic subtleties: for other advances in instrumentation, see pages 1885 to 1917

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