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NEWS AND COMMENT
Atomic force micrograph of a living cell, showing filamen-
tous 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 instru-
ments 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, 1885
High-Accuracy Mass Measurement of
Peptides and Proteins
B. T. Chait and S. B. H. Kent

Detection of Trace Molecular Species 1894
Using Degenerate Four-Wave Mixing
R. L. Farrow and D. J. Rakestraw

From Molecules to Cells: Imaging Soft 1900
Samples with the Atomic Force Microscope
M. Radmacher, R. W. Tillmann, M. Fritz,
H. E. Gaub

The Cytosensor Microphysiometer: 1906
Biological Applications of Silicon Technology
H. M. McConnell, J. C. Owicki, J. W. Parce,
D. L. Miller, G. T. Baxter, H. G. Wada, S. Pitchford

Ultrafast Infrared Spectroscopy 1913
P. O. Stoutland, R. B. Dyer, W. H. Woodruff

RESEARCH ARTICLE

Interactions of Small Nuclear RNA’s 1918
with Precursor Messenger RNA During
in Vitro Splicing
D. A. Wassarman and J. A. Steitz

REPORTS

Comet Yanaka (1988r): A New Class of 1926
Carbon-Poor Comet
U. Fink

Miocene Fossil Hominids and the 1929
Chimp-Human Clade
D. R. Begun

DNA Sequences from a Fossil Termite 1933
in Oligo-Miocene Amber and Their
Phylogenetic Implications
R. DeSalle, J. Gatesy, W. Wheeler, D. Grimaldi

Measurement of Quantum Tunneling 1937
Between Chiral Isomers of the Cyclic
Water Trimer
N. Fugliano and R. J. Saykally

Discovery of a Peptide-Based Renin 1940
Inhibitor with Oral Bioavailability and Efficacy
H. D. Kleinert, S. H. Rosenberg, W. R. Baker,
H. H. Stein, V. Klinkhofer, J. Barlow, K. Spina,
J. Polakowski, P. Kvarn, J. Cohen, J. Denissen

Actin Filament Dynamics in Living Glial 1944
Cells Imaged by Atomic Force Microscopy
E. Henderson, F. G. Haydon, D. S. Sakaguchi

Multiple Zinc Finger Forms Resulting 1946
from Developmentally Regulated Alternative
Splicing of a Transcription Factor Gene
T. Hsu, J. A. Gogos, S. A. Kirsh, F. C. Kafatos

Sequence Discrimination by Alternatively 1951
Spliced Isomers of a DNA Binding Zinc
Finger Domain
J. A. Gogos, T. Hsu, J. Bolton, F. C. Kafatos

Inactivation of the p34cdc2-Cyclin B 1955
Complex by the Human WEE1 Tyrosine Kinase
L. L. Parker and H. Piwnica-Worms

Association of Human Cyclin E with a 1958
Periodic G1-S Phase Protein Kinase
V. Dulić, E. Lees, S. I. Reed

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to foster scientific freedom and responsibility, to improve the effectiveness of science in the promotion
of human welfare, to advance education in science, and to increase public understanding and appreci-
ation of the importance and promise of the methods of science in human progress.

1839
Editor's Summary

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