Policy Forum

Statistical Evaluation of DNA Fingerprinting: A Critique of the NRC's Report
B. Devlin, N. Risch, K. Roeder

NEWS & COMMENT

AIDS Research: Reorganization Plan
Massey Leaving NSF for Top UC Job
Radio Astronomers Go Hatless
Geneticists Attack NRC Report as Scientifically Flawed
The Presidential Transition Heightens Uncertainty
SSC Detectors Desperately Seek Donors

RESEARCH NEWS

Cell Death Studies Yield Cancer Clues
Death Gives Birth to the Nervous System. But How?
Cashing In on Cell Death
Archaeopteryx: Early Bird Catches a Can of Worms

Perspectives

Where Are the Nuclear Pions? G. F. Beritsch, L. Frankfurt, M. Strikman
Genetic Models for Studying Cancer S. H. Friend

Articles

Biological Control of Crystal Texture: A Widespread Strategy for Adapting Crystal Properties to Function
A. Berman, J. Hanson, L. Leiserowitz, T. F. Koetzle, S. Weiner, L. Addadi

Synaptic Vesicle Phosphoproteins and Regulation of Synaptic Function
F. Greengard, F. Valtorta, A. J. Caesarik, F. Benfenati

Reports

Magnesium and Calcium Aluminate Liquids: In Situ High-Temperature 27Al NMR Spectroscopy
B. T. Poe, P. F. McMillan, B. Coté, D. Massiot, J. F. Coutures

Noble Gas Partitioning Between Metal and Silicate Under High Pressures
J. Matsuda, M. Sudo, M. Ozima, K. Ito, O. Ohtaka, E. Ito

Departments

THIS WEEK IN SCIENCE

EDITORIAL
Science, Technology, and National Goals
LETTERS
Gaia in Science: L. Margulis • Big Physics and New Ideas: M. J. Shochet; A. V. Tollestrup

ScienceScope

Random Samples

Book Reviews

Making Science, reviewed by S. Shapin • Alexanderson, W. B. Carlson • The Cerebellum Revisited, A. M. Smith • Periods and Menstrual Health in Women's Lives, M. B. Parlee

Products & Materials

AAAS Board of Directors

Leon M. Lederman
Retiring President, Chairman
F. Sherwood Rowland
President
Elise E. Clark
President-elect
Mary Ellen Avery
Francesco A. Ayala
Robert A. Froesch

Florence P. Haseltine
Alan Schmieszem
Jeanne M. Shreeve
Chao Yen Tien
Warren M. Washington
William T. Golden
Treasurer
Richard S. Nicholson
Executive Officer
John Abelson
Frederick W. Alt
Don L. Anderson
Stephen J. Benkovic
David E. Bloom
Floyd E. Bloom
Henry R. Bourne
James J. Bull
Kathryn Calame
C. Thomas Caskey
Dennis W. Cho
John M. Coffin
Bruce F. Erdrick
Paul T. Englender
Richard G. Farbanks
Douglas T. Fearon
Harry A. Fozzard
Victor R. Fuchs
Theodore H. Goldblatt
Margaret J. Geller
John C. Gerhart
Roger I. M. Glass
Stephen P. Goff
Corey S. Goodman
Stephen J. Gould
Ira Herskowitz
Eric F. Johnson
Stephen M. Kosslyn
Michael LaBarbera
Charles S. Levine III
Harvey F. Lodish
Richard Losick
Anthony R. Means
Mortimer Mishkin
Roger A. Nicoll
William H. Orme-Johnson III
Stuart L. Pimm
Yashayau Puccier
Dennis A. Powers
Ralph S. Quatrano
V. Ramanathan
Douglas C. Rees
Enki Rudsafati
Ronald H. Schwartz
Terrence J. Sejnowski
Thomas A. Steitz
Richard F. Thompson
Robert T. N. Tjian
Enri R. Lusaus
Geert J. Vermej
Berl Vogelstein
Harold Weintraub
Zena Werb
George M. Whitesides
Owen N. Witte
Keith Yamamoto
Displaying Archaeopteryx in a Late Jurassic ginkgo tree. Although Archaeopteryx has been envisioned as a curiosity, evidence from claw geometry suggests that Archaeopteryx was primarily an arboreal bird and a trunk-climber and does not represent a terrestrial stage in the evolution of avian flight and feathers. See page 790. [Acrylic painting: John P. O'Neill]

Evidence from Claw Geometry 790
Indicating Arboreal Habits of Archaeopteryx
A. Peduccia

A High-Temperature Superconducting Receiver for Nuclear Magnetic Resonance Microscopy

Formation of an Fe(III)-Tyrosinate Complex During Biomineralization of H-Subunit Ferritin
G. S. Waldo, J. Ling, J. Sanders-Loehr, E. C. Theil

Molecular Positional Order in Langmuir-Blodgett Films by Atomic Force Microscopy
L. Bourdieu, O. Ronsin, D. Chatenay

Mediation of Sulfur Speciation by a Black Sea Faculative Anaerobe
K. A. Perry, J. E. Kostka, G. W. Luther III, K. H. Nealson

Multiple Evolutionary Origins of Magnetotaxis in Bacteria
E. F. DeLong, R. B. Frankel, D. A. Bazylnski

Probing the Structure and Mechanism of a Ras Protein with an Expanded Genetic Code
H.-H. Chung, D. R. Benson, P. G. Schultz

Reduction in Size of the Myotonic Dystrophy Trinucleotide Repeat Mutation During Transmission

Editing of Transfer RNAs in Acanthamoeba castellanii Mitochondria
K. M. Lonergan and M. W. Gray

Tumor Suppression in Xiphophorus by an Accidentally Acquired Promoter
D. Adam, N. Dimitrijevic, M. Schartl

Multiple Output Channels in the Basal Ganglia
J. E. Hoover and F. L. Strick

Restoration of T Cell Development in RAG-2–Deficient Mice by Functional TCR Transgenes
Y. Shinkai, S. Koyasu, K.-i. Nakayama, K. M. Murphy, D. Y. Loh, E. L. Reinherz, F. W. Alt

β-Adrenergic Receptor Kinase–2 and β-Arrestin–2 as Mediators of Odorant-Induced Desensitization

Role of the Acylated Amino Terminus of Recoverin in Ca2+-Dependent Membrane Interaction
A. M. Drezhko, C.-K. Chen, E. Olshevskaya, V. V. Sinelnikova, P. Philippov, J. B. Hurley

Selectivity in Signal Transduction Determined by γ Subunits of Heterotrimeric G Proteins
C. Kleuss, H. Scherübl, J. Hescheler, G. Schultz, B. Wittig

TECHNICAL COMMENTS

Algae and Oxygen in Earth’s Ancient Atmosphere
J. F. Kasting; B. Runnegar

Laser-Enhanced NMR Spectroscopy: Theoretical Considerations

Indicates accompanying feature

Bulk rates on request. Authorization to photocopy material for internal or personal use under circumstances not falling within the fair use provisions of the Copyright Act is granted by AAAS to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of $1 per copy plus $0.10 per page is paid directly to CCC, 27 Congress Street, Salem, MA 01970. The identification code for Science is 0036-8075/83 $1 +.10. Science is indexed in the Reader’s Guide to Periodical Literature and in several specialized indexes.

The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objectives are to further the work of scientists, to facilitate cooperation among them, 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 appreciation of the importance and promise of the methods of science in human progress.

SCIENCE • VOL. 259 • 5 FEBRUARY 1993

739