NEWS & COMMENT

Databasing the Brain 1872
Universities Discover That Simplicity Has Its Price 1874
UC Goes Where Harvard Feared to Tread 1875
Smoking and Health: Signs of Damage by Radicals 1875
Spain's Ambitions in Biology Threatened by Funding Freeze 1876

RESEARCH NEWS

AIDS Vaccines: Is Older Better? Explaining Puzzling Vaccine Results 1880
Pot, Heroin Unlock New Areas for Neuroscience 1882
Survival of the Fittest in 1992's Physics and Astronomy Bestiary 1884
Researchers Swap Material Evidence in Boston 1886

DEPARTMENTS

THIS WEEK IN SCIENCE 1859
EDITORIAL
Molecule of the Year 1861
MOLECULE OF THE YEAR
NO News Is Good News 1862
LETTERS

PERSPECTIVES

The Gamma-Ray Cosmos 1894
E. L. Chupp

Frosted Flies 1896
M. Ashburner

ARTICLE

Biochemistry of Nitric Oxide and Its Redox-Activated Forms 1898
J. S. Stamler, D. J. Singel, J. L. Lasko

RESEARCH ARTICLES

Impaired Long-Term Potentiation, Spatial Learning, and Hippocampal Development in Mutant Mice 1903

Selection of a Ribozyme That Functions as a Superior Template in a Self-Copying Reaction 1910
R. Green and J. W. Szostak

AAAS Board of Directors

Leon M. Lederman
Retiring President, Chairman

Ernest R. Moniz
President-elect

Mary Ellen Avery
Treasurer

Francisco J. Ayala
Executive Officer

Florence F. Haseltine
Alan Schrieber
Jeanne H. Shreeve
Chang-Lin Tien
Warren M. Washington

William T. Golden
Richard S. Nicholson

John Abelson
Frederick W. Alt
Don L. Anderson
Stephen J. Benkovic
David E. Bloom
Floyd E. Bloom
Henry R. Bourne
James I. Bull
Kalyny Calame
C. Thomas Caskey
Dennis W. Choi

John M. Coffin
Bruce F. Edrige
Paul T. Englund
Richard G. Farbanks
Douglas F. Fearon
Harry A. Fozard
Victor R. Fuchs
Theodore H. Gebele
Margaret J. Geller
John C. Gerhart
Roger I. M. Glass

Stephen P. Golf
Corey S. Goodman
Stephen J. Gould
Ira Herskowitz
Eric F. Johnson
Stephen M. Kosslyn
Michael LaBarbera
Charles S. Levinger III
Harvey F. Lodish
Richard Losick
Anthony R. Means

Mortimer Mishkin
Roger A. Nicoll
William H. Orme-Johnson III
Stuart L. Pinn
Yoshaya Yu-Packer
Dennis A. Powers
Ralph S. Quatraro
V. Ramana
Douglas C. Rees
Eric Ruvkun
Ronald H. Schwartz

Terrence J. Sejnowski
Thomas A. Steitz
Richard F. Thompson
Robert T. N. Tien
Ebi R. Unruhe
Geerat J. Vermeij
Bert Vogelstein
Harold Weintraub
Zena Werb
George M. Whitesides
Owen N. Witte
Keith Yamamoto

Downloaded from http://science.sciencemag.org on July 25, 2017
**Reports**

<table>
<thead>
<tr>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural and Electronic Properties of La@C&lt;sub&gt;92&lt;/sub&gt;</td>
<td>1916</td>
</tr>
<tr>
<td>Scanning Tunneling Microscopy of Electrodeposited Ceramic Superlattices</td>
<td>1918</td>
</tr>
<tr>
<td>Dynamics of Soil Carbon During Deglaciation of the Laurentide Ice Sheet</td>
<td>1921</td>
</tr>
<tr>
<td>Evidence from the Lamarck Granodiorite for Rapid Late Cretaceous Crust Formation in California</td>
<td>1924</td>
</tr>
<tr>
<td>Allometric Engineering: A Causal Analysis of Natural Selection on Offspring Size</td>
<td>1927</td>
</tr>
<tr>
<td>Components of Sterol Biosynthesis Assembled on the Oxygen-Avid Hemoglobin of Ascaris</td>
<td>1930</td>
</tr>
<tr>
<td>Cryobiological Preservation of Drosophila Embryos</td>
<td>1932</td>
</tr>
<tr>
<td>Cellular Proteins Bound to Immunodeficiency Viruses: Implications for Pathogenesis and Vaccines</td>
<td>1935</td>
</tr>
<tr>
<td>Protective Effects of a Live Attenuated SIV Vaccine with a Deletion in the nef Gene</td>
<td>1938</td>
</tr>
<tr>
<td>Targeted Degradation of c-Fos, But Not v-Fos, by a Phosphorylation-Dependent Signal on c-Jun</td>
<td>1941</td>
</tr>
<tr>
<td>Retinoids Selective for Retinoid X Receptor Response Pathways</td>
<td>1944</td>
</tr>
<tr>
<td>Isolation and Structure of a Brain Constituent That Binds to the Cannabinoid Receptor</td>
<td>1946</td>
</tr>
<tr>
<td>Direct Visualization of the Dendritic and Receptive Fields of Directionally Selective Retinal Ganglion Cells</td>
<td>1949</td>
</tr>
<tr>
<td>Cloning of a Delta Opioid Receptor by Functional Expression</td>
<td>1952</td>
</tr>
<tr>
<td>Prevention of Programmed Cell Death in Caenorhabditis elegans by Human bcl-2</td>
<td>1955</td>
</tr>
<tr>
<td>Neutrophil Recruitment by Tumor Necrosis Factor from Mast Cells in Immune Complex Peritonitis</td>
<td>1957</td>
</tr>
</tbody>
</table>

**Indicates accompanying feature**

**Cover**

Cultured human neurons, one of the targets of the potent signaling molecule nitric oxide (the NO of the cover). The diverse and important roles of NO are just beginning to be discovered; see the Editorial on page 1861 and the Molecule of the Year story on page 1862.

[Photograph: Visuals Unlimited]

---

**Cover**

<table>
<thead>
<tr>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foiling the hangman's noose ... in worms</td>
<td>1955</td>
</tr>
</tbody>
</table>

**Indicates accompanying feature**
Science 258 (5090), 1859-1971.

Use of this article is subject to the Terms of Service.

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title Science is a registered trademark of AAAS.