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Editor summaries of this week's papers.
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EDITORIAL:

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 Susan Hockfield
Science 27 February 2009: 1147.
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Editors' Choice

Highlights of the recent literature.
Science 27 February 2009: 1148.
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Science Podcast

Science 27 February 2009: 1235.

The 27 February 2009 show includes predicting election outcomes, drug-resistant influenza, your Letters to Science, and more.

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NEW PRODUCTS

Science 27 February 2009: 1235.

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News of the Week

SPACE SCIENCE: NASA, ESA Choose King of Planets for Flagship Missions in 2020

Andrew Lawler
Science 27 February 2009: 1154.

The jovian satellites Europa and Ganymede were chosen by NASA and European Space Agency officials last week as the next major missions to explore the solar system beyond Mars, instead of Titan, an equally intriguing moon of Saturn.

[Summary](#) » [Full Text](#) » [PDF](#) »

SCIENCE AND THE LAW: Forensic Science Needs a Major Overhaul, Panel Says

Constance Holden
Science 27 February 2009: 1155.

Last week, the National Academies' National Research Council called for a sweeping overhaul of all forensic sciences in the United States, which it says almost uniformly lack rigorous underpinnings.

[Summary](#) » [Full Text](#) » [PDF](#) »

HIV/AIDS: Tangled Patent Dispute Over 'Free' Drug-Resistance Database

Jon Cohen
Science 27 February 2009: 1156-1157.

A patent dispute among a small European biotechnology company, Stanford University, and one of its HIV/AIDS researchers has triggered a defamation lawsuit, raised issues of academic freedom, and led some observers to call it a battle out of *Don Quixote*.

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UNIVERSITY RESEARCH: Harvard Puts Science Campus on Slow Track

Eliot Marshall
Science 27 February 2009: 1157.

Harvard University hit the brakes last week as it was getting ready to build one of the country's largest new academic science centers--flagging another possible casualty of the economic downturn.

[Summary](#) » [Full Text](#) » [PDF](#) »

ENERGY RESEARCH: Stimulus Gives DOE Billions for Carbon-Capture Projects

Dan Charles
Science 27 February 2009: 1158.

Industrial-scale attempts to capture CO₂ from coal-burning power plants or oil refineries and lock it away deep underground are getting an unprecedented boost from the U.S. government's \$787 billion stimulus package.

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EVOLUTION: Creationist Beliefs Persist in Europe

Andrew Curry
Science 27 February 2009: 1159.

Creationism remains alive and well in Europe, according to researchers gathered here last week for a conference on the state of European science education and European teachers' attitudes toward and knowledge of evolution.

[Summary](#) » [Full Text](#) » [PDF](#) »

IMMUNOLOGY: Flu Antibodies Stir New Hope for Treatment, Vaccine

Mitch Leslie
Science 27 February 2009: 1160.

Two independent teams report this week in *Science* and elsewhere that they've nabbed antibodies that disable multiple varieties of the flu virus. The results might help researchers devise a universal flu vaccine or treatments that quash numerous flu strains, including the dreaded avian influenza.

[Summary](#) » [Full Text](#) » [PDF](#) »

SCIENTIFIC WORK FORCE: NSF Restores Data on Minority Ph.D.s

Jeffrey Mervis
Science 27 February 2009: 1161.

Last week, the National Science Foundation (NSF) did a U-turn after getting complaints from its constituents--to the surprise and pleasure of groups working to increase the number of minorities in science and engineering.

[Summary](#) » [Full Text](#) » [PDF](#) »

SCIENCEINSIDER: From the *Science* Policy Blog

Science 27 February 2009: 1161.

This past week has been a mixed bag for science and its proponents, as detailed in *Science's* policy blog, *ScienceInsider*.

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Random Samples

Science 27 February 2009: 1151.
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Newsmakers

Science 27 February 2009: 1153.
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News Focus

DRUG RESISTANCE: A 'Wimpy' Flu Strain Mysteriously Turns Scary

Martin Enserink
Science 27 February 2009: 1162-1163.

Researchers are trying to figure out why resistance to the most widely used flu drug has skyrocketed--and what that means for pandemic preparedness.

[Summary](#) » [Full Text](#) » [PDF](#) » [Podcast Interview](#) »

DEMOGRAPHY: Making Every Baby Girl Count

Mara Hvistendahl
Science 27 February 2009: 1164-1166.

China is ramping up a program that addresses the sociological factors behind an alarming trend: the country's rising sex ratio at birth.

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DEMOGRAPHY: Chinese Men: A Rising Tide of Troublemakers?

Constance Holden
Science 27 February 2009: 1166.

Chinese officials are taking measures to encourage couples to value daughters ([see main text](#)), but they don't talk much about the flip side of the problem: men who can't find wives.

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NUCLEAR PHYSICS: Will Monju's Resurrection Give Breeders a Second Lease on Life?

Dennis Normile
Science 27 February 2009: 1167.

A long-shuttered fast breeder reactor could be the bridge to a new generation of such reactors, if it can overcome technical problems that have delayed its planned restart.

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Neuroscience and the Soul

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Davis-CA-United States

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University College London

London - England

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Alaska SeaLife Center

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4. [Positions Available In](#)

Martha J. Farah and Nancey Murphy
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An Optimistic Read on Digital Libraries
 Jack Fellows
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Developing Psychomotor Skills the Wii Way
 Ciaran Scott Hill
Science 27 February 2009: 1169.
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Explaining the Reasoning-Fact Gap
 Scott M. Carlson
Science 27 February 2009: 1169.
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Books *et al.*

HISTORY OF SCIENCE: Making German Evolution: Translation and Tragedy
 Lynn K. Nyhart
Science 27 February 2009: 1170-1171.
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Books Received
Science 27 February 2009: 1171.
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Education Forum

ECOLOGY: A National Ecological Network for Research and Education
 Margaret Lowman, Charlene D'Avanzo, and Carol Brewer
Science 27 February 2009: 1172-1173.
 A proposal links continental-scale ecological data with education projects.
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Perspectives

ANTHROPOLOGY: Stepping Out
 Robin Huw Crompton and Todd C. Pataky
Science 27 February 2009: 1174-1175.
 What can fossil footprints reveal about the evolution of the human foot?
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ATMOSPHERIC SCIENCE: Tipping Pointedly Colder
 Lee R. Kump
Science 27 February 2009: 1175-1176.
 Data from multiple ocean basins elucidate an ancient climate transition from greenhouse to icehouse.
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ENGINEERING: Harvesting Ocean Wave Energy
 Jeff Scruggs and Paul Jacob
Science 27 February 2009: 1176-1178.
 Offshore structures that generate electrical power from ocean waves have been deployed but engineering challenges remain.
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APPLIED PHYSICS: Looking Below the Surface
 Andreas J. Heinrich
Science 27 February 2009: 1178-1179.
 Scanning tunneling microscopy can now be used to determine electronic properties of bulk materials.
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PSYCHOLOGY: From Oral to Moral
 Paul Rozin, Jonathan Haidt, and Katrina Fincher
Science 27 February 2009: 1179-1180.
 Is moral disgust an elaboration of a food rejection system?
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RETROSPECTIVE: Frederic M. Richards (1925-2009)
 Thomas A. Steitz
Science 27 February 2009: 1181.
 A pioneer of biochemistry and structural biology overturned conceived wisdom about protein structure.
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Association Affairs

AAAS News and Notes
Science 27 February 2009: 1182.
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Predicting Elections: Child's Play!

John Antonakis and Olaf Dalgas
Science 27 February 2009: 1183.

Children's choices of a ship's captain reflect adults' choices of a parliamentarian.

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Reports

- Inducing a Magnetic Monopole with Topological Surface States**
 Xiao-Liang Qi, Rundong Li, Jiadong Zang, and Shou-Cheng Zhang
Science 27 February 2009: 1184-1187.
 Published online 29 January 2009 [DOI: 10.1126/science.1167747] (in *Science Express Reports*)
 A magnetic monopole is theoretically predicted to be induced at the surface of a topological insulator.
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- Global Cooling During the Eocene-Oligocene Climate Transition**
 Zhonghui Liu, Mark Pagani, David Zinniker, Robert DeConto, Matthew Huber, Henk Brinkhuis, Sunita R. Shah, R. Mark Leckie, and Ann Pearson
Science 27 February 2009: 1187-1190.
 When a permanent Antarctic ice sheet formed about 34 million years ago, high-latitude surface oceans cooled by about 5°C.
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- Seeing the Fermi Surface in Real Space by Nanoscale Electron Focusing**
 Alexander Weismann, Martin Wenderoth, Samir Lounis, Peter Zahn, Norbert Quaa, Rainer G. Ulbrich, Peter H. Dederichs, and Stefan Blügel
Science 27 February 2009: 1190-1193.
 Scanning tunneling microscopy can reveal the bulk Fermi surface of copper when buried cobalt atoms are present.
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- Conductance of a Single Conjugated Polymer as a Continuous Function of Its Length**
 Leif Lafferentz, Francisco Ample, Hao Yu, Stefan Hecht, Christian Joachim, and Leonhard Grill
Science 27 February 2009: 1193-1197.
 The conductance of a polyfluorene oligomer is measured as it is pulled off a gold surface.
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- Early Hominin Foot Morphology Based on 1.5-Million-Year-Old Footprints from Ileret, Kenya**
 Matthew R. Bennett, John W.K. Harris, Brian G. Richmond, David R. Braun, Emma Mbua, Purity Kiura, Daniel Olago, Mzalendo Kibunjia, Christine Omuombo, Anna K. Behrensmeyer, David Huddart, and Silvia Gonzalez
Science 27 February 2009: 1197-1201.
 Footprints found near Lake Turkana show that human foot shape and gait had been achieved 1.5 million years ago.
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- RNA Polymerase IV Functions in Paramutation in *Zea mays***
 Karl F. Erhard, Jr., Jennifer L. Stonaker, Susan E. Parkinson, Jana P. Lim, Christopher J. Hale, and Jay B. Hollick
Science 27 February 2009: 1201-1205.
 In maize, a derivative RNA polymerase is responsible for passing on epigenetic changes to the next generation.
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- Mutations in the *FUS/TLN3* Gene on Chromosome 16 Cause Familial Amyotrophic Lateral Sclerosis**
 T. J. Kwiatkowski, Jr., D. A. Bosco, A. L. LeClerc, E. Tamrazian, C. R. Vanderburg, C. Russ, A. Davis, J. Gilchrist, E. J. Kasarskis, T. Munsat, P. Valdmanis, G. A. Rouleau, B. A. Hosler, P. Cortelli, P. J. de Jong, Y. Yoshinaga, J. L. Haines, M. A. Pericak-Vance, J. Yan, N. Ticozzi, T. Siddique, D. McKenna-Yasek, P. C. Sapp, H. R. Horvitz, J. E. Landers, and R. H. Brown, Jr.
Science 27 February 2009: 1205-1208.
 Mutations in an RNA processing protein, the second implicated, suggest that a common mechanism promotes Lou Gehrig's disease.
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- Mutations in *FUS*, an RNA Processing Protein, Cause Familial Amyotrophic Lateral Sclerosis Type 6**
 Caroline Vance, Boris Rogelj, Tibor Hortobágyi, Kurt J. De Vos, Agnes Lumi Nishimura, Jemeen Sreedharan, Xun Hu, Bradley Smith, Deborah Ruddy, Paul Wright, Jeban Ganesalingam, Kelly L. Williams, Vineeta Tripathi, Safa Al-Saraj, Ammar Al-Chalabi, P. Nigel Leigh, Ian P. Blair, Garth Nicholson, Jackie de Belleruche, Jean-Marc Gallo, Christopher C. Miller, and Christopher E. Shaw
Science 27 February 2009: 1208-1211.
 Mutations in an RNA processing protein, the second implicated, suggest that a common mechanism promotes Lou Gehrig's disease.
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- Synchronous Hyperactivity and Intercellular Calcium Waves in Astrocytes in Alzheimer Mice**
 Kishore V. Kuchibhotla, Carli R. Lattarulo, Bradley T. Hyman, and Brian J. Bacskai
Science 27 February 2009: 1211-1215.
 In a mouse model of Alzheimer's disease, astrocytes respond globally to plaque formation.
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- Meropenem-Clavulanate Is Effective Against Extensively Drug-Resistant *Mycobacterium tuberculosis***
 Jean-Emmanuel Hugonnet, Lee W. Tremblay, Helena I. Boshoff, Clifton E. Barry, 3rd, and John S. Blanchard
Science 27 February 2009: 1215-1218.
 Together, two FDA-approved drugs inhibit the growth of 13 antibiotic-resistant strains of the tuberculosis pathogen.
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- Analysis of *Drosophila* Segmentation Network Identifies a JNK Pathway Factor Overexpressed in Kidney Cancer**
 Jiang Liu, Murad Ghanim, Lei Xue, Christopher D. Brown, Ivan Iossifov, Cesar Angeles, Sujun Hua, Nicolas Nègre, Michael Ludwig, Thomas Stricker, Hikmat A. Al-Ahmadie, Maria Tretjakova, Robert L. Camp, Montse Perera-Alberto, David L. Rimm, Tian Xu, Andrey Rzhetsky, and Kevin P. White
Science 27 February 2009: 1218-1222.
 Published online 22 January 2009 [DOI: 10.1126/science.1157669] (in *Science Express Reports*)
 A developmental marker in fruit flies also acts as a marker of renal cell cancer in humans.
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- In Bad Taste: Evidence for the Oral Origins of Moral Disgust**
 H. A. Chapman, D. A. Kim, J. M. Susskind, and A. K. Anderson
Science 27 February 2009: 1222-1226.

Responses to bad-tasting foods and morally repugnant actions are processed in overlapping regions of the brain.

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Blue or Red? Exploring the Effect of Color on Cognitive Task Performances

Ravi Mehta and Rui (Juliet) Zhu

Science 27 February 2009: 1226-1229.

Published online 5 February 2009 [DOI: 10.1126/science.1169144] (in *Science Express Reports*)

Blue favors creativity in humans, whereas red improves attention to detail.

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Self-Sustained Replication of an RNA Enzyme

Tracey A. Lincoln and Gerald F. Joyce

Science 27 February 2009: 1229-1232.

Published online 8 January 2009 [DOI: 10.1126/science.1167856] (in *Science Express Reports*)

Two ribozymes synthesize each other from oligonucleotide substrates to give a self-replicating system.

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Antagonistic Actions of Msx1 and Osr2 Pattern Mammalian Teeth into a Single Row

Zunyi Zhang, Yu Lan, Yang Chai, and Rulang Jiang

Science 27 February 2009: 1232-1234.

A pair of transcription factors controls sites of tooth formation in mice by regulating the distribution of signals.

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Technical Comments

Comment on "Multipartite Entanglement Among Single Spins in Diamond"

Brendon W. Lovett and Simon C. Benjamin

Science 27 February 2009: 1169.

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Response to Comment on "Multipartite Entanglement Among Single Spins in Diamond"

P. Neumann, N. Mizuochi, F. Rempp, P. Hemmer, H. Watanabe, S. Yamasaki, V. Jacques, T. Gaebel, F. Jelezko, and J. Wrachtrup

Science 27 February 2009: 1169.

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