In this week's issue:

**Editorial**

U.S.-China SAT at 30
N. P. Neureiter and T. C. Wang
http://www.sciencemag.org/cgi/content/summary/323/5914/561

**Research Summaries**

This Week in Science
Editor summaries of this week's papers.
http://www.sciencemag.org/content/vol323/issue5914/twis.dtl

Editors' Choice
Highlights of the recent literature
http://www.sciencemag.org/content/vol323/issue5914/twil.dtl

**News of the Week**

**BIOTECHNOLOGY:** Celebration and Concern Over U.S. Trial of Embryonic Stem Cells
Last week, the U.S. Food and Drug Administration gave Geron permission to conduct a safety test of embryonic stem cells in a handful of patients with a recent spinal cord injury.
http://www.sciencemag.org/cgi/content/summary/323/5914/568

**HUMAN EVOLUTION:** Early Start for Human Art? Ochre May Revise Timeline
Thirteen engraved ochre pieces from Africa, many dated to 100,000 years ago, may represent an artistic or symbolic tradition, researchers suggest. If so, the timeline for the earliest known symbolic behavior must once again be redrawn.
http://www.sciencemag.org/cgi/content/summary/323/5914/569

**RESEARCH FUNDING:** European Science Not As Intense As Hoped
European research got a mixed report card in an analysis released last week by the European Union.
http://www.sciencemag.org/cgi/content/summary/323/5914/570a

**ARCHAEOLOGY:** Iraq Museum May Reopen Amid Controversy
A dispute over whether it is safe to reopen Iraq's renowned archaeology museum in Baghdad has cost the head of the country's archaeology board her job.
http://www.sciencemag.org/cgi/content/summary/323/5914/570b

**U.S. BUDGET:** A Stimulus for Science
Academic researchers are on the verge of receiving a major influx of federal funding as part of a 2-year, $825 billion economic stimulus package moving rapidly through Congress.
http://www.sciencemag.org/cgi/content/summary/323/5914/571

**INFORMAL EDUCATION:** Report Calls for Fresh Look at What Happens Outside School
A new report from the U.S. National Academies comes to grips with a knotty problem for science educators, namely, tracking the science that people learn when they're not in school.
http://www.sciencemag.org/cgi/content/summary/323/5914/572a

**NEUROSCIENCE:** Fingerprints Enhance the Sense of Touch
Some scientists have argued that the tiny ridges on our fingertips improve our grip on slippery objects; others have suggested that they improve our sense of touch. Online in Science this week, a team of physicists presents circumstantial evidence for the latter theory.
http://www.sciencemag.org/cgi/content/summary/323/5914/572b

**PLANT GENETICS:** How Sorghum Withstands Heat and Drought
Analysis of the genome sequence of sorghum has revealed clues about how this crop plant, a major cereal in many parts of the developing world that is also an important source of U.S. biofuel, toughs out subpar growing conditions.
http://www.sciencemag.org/cgi/content/summary/323/5914/573

**Random Samples**

**Newsmakers**

http://www.sciencemag.org/content/vol323/issue5914/newsmakers.dtl

**SOCIAL SCIENCES:** Seeds of Discontent
Social scientists blame poor local governance for China’s rising unrest; the global financial crisis, they warn, could make things far worse.

http://www.sciencemag.org/cgi/content/summary/323/5914/574

SOCIAL SCIENCES: DOD Funds New Views on Conflict With Its First Minerva Grants

The Pentagon makes a $45 million bet that social scientists can help it understand the world—and protect the United States.

http://www.sciencemag.org/cgi/content/summary/323/5914/576

ASTRONOMY: Beset by Delays, U.S. Astronomers Ponder a Better ‘To Do’ List

With only five of 20 projects from the last decadal survey completed and only five more started, scientists search for ways to make their list of priorities more effective.

http://www.sciencemag.org/cgi/content/summary/323/5914/579

ASTRONOMY: Priorities Nearer to Home in Need of Better Cost Estimates

Like their colleagues in astronomy (see main text), planetary scientists have seen early cost estimates for two missions blow up, sending shock waves into their next decadal survey due in 2011.

http://www.sciencemag.org/cgi/content/summary/323/5914/578

CANCER: HPV Casts a Wider Shadow

Recent studies link certain oral cancers to the virus that causes cervical cancer; some researchers want to vaccinate both men and women against it.

http://www.sciencemag.org/cgi/content/summary/323/5914/580

Letters

Systems Politics and Political Systems

http://www.sciencemag.org/cgi/content/summary/323/5914/582a

Scientists Not Immune to Partisanship

http://www.sciencemag.org/cgi/content/summary/323/5914/582b

Law and Science Not Mutually Exclusive

http://www.sciencemag.org/cgi/content/summary/323/5914/582c

Credit for Coauthors

http://www.sciencemag.org/cgi/content/summary/323/5914/583a

Corrections and Clarifications

http://www.sciencemag.org/cgi/content/summary/323/5914/583b

Books et al.

SCIENCE COMMUNICATION: Faulty Transmission

Audra J. Wolfe

LaFollette explores how scientists, journalists, and the conflicting goals of education and entertainment interacted to shape the content and format of science broadcasts from the rise of radio to the early days of television.

http://www.sciencemag.org/cgi/content/summary/323/5914/584

NEUROSCIENCE: Who Are We?

Ralph Adolphs

Writing for the interested public, Gazzaniga marshals recent findings from neuroscience to demonstrate the crucial roles of social interactions and context in the evolution of human mind.

http://www.sciencemag.org/cgi/content/summary/323/5914/585a

Books Received

http://www.sciencemag.org/cgi/content/summary/323/5914/585b

Perspectives

CELL BIOLOGY: The Force Is with Us

Martin A. Schwartz

Through changes in protein conformation and interactions, cells sense and respond to forces at their point of attachment to extracellular matrix.

http://www.sciencemag.org/cgi/content/summary/323/5914/588

MATERIALS SCIENCE: Transforming Graphene

Alex Savchenko

Synthesis of a new material by the hydrogenation of graphene offers the opportunity for wider device applications.

http://www.sciencemag.org/cgi/content/summary/323/5914/589

PHYSICS: An Abnormal Normal State

Gregory S. Boebinger

A metallic phase of a high-temperature superconductor reveals unexpected properties in the zero-temperature limit.

http://www.sciencemag.org/cgi/content/summary/323/5914/590

PLANT SCIENCE: Pores in Place

F. D. Sack and J.-G. Chen

Signals that control plant cell division and fate also control epidermal pore development and gas exchange.

http://www.sciencemag.org/cgi/content/summary/323/5914/592

BIOCHEMISTRY: Unfolding the Secrets of Calmodulin

R. B. Best and G. Hummer

Researchers have now observed in real time how a single molecule of calmodulin refolds and how it binds to a ligand.

http://www.sciencemag.org/cgi/content/summary/323/5914/593

ECOLOGY: The Key to Pandora’s Box

P. A. Stevenson

When desert locusts meet up, their nervous systems release serotonin, which causes them to become mutually attracted, a prerequisite for swarming.

http://www.sciencemag.org/cgi/content/summary/323/5914/594

Review Articles

Sudden Death of Entanglement

T. Yu and J. H. Eberly

http://www.sciencemag.org/cgi/content/abstract/323/5914/598

Brevia
Facile Synthesis of AsP$_3$
B. M. Cossairt et al.
The question of the stability of solid AsP$_3$, a simple inorganic molecule, has been settled by its synthesis.
http://www.sciencemag.org/cgi/content/abstract/323/5914/602

Research Articles

Anomalous Criticality in the Electrical Resistivity of La$_{2-x}$Sr$_x$CuO$_4$
R. A. Cooper et al.
High magnetic fields can strip away the superconducting regime of a cuprate superconductor, revealing the presence of an enigmatic quantum critical point.
http://www.sciencemag.org/cgi/content/abstract/323/5914/603

Reports

Revealing the Maximum Strength in Nanotwinned Copper
L. Lu et al.
Studies of nanocrystalline copper reveal changes in deformation mechanisms with grain size and the role played by twin boundaries.
http://www.sciencemag.org/cgi/content/abstract/323/5914/607

Control of Graphene's Properties by Reversible Hydrogenation: Evidence for Graphane
D. C. Elias et al.
Graphene can be transformed from a conductor to an insulator by exposure to hydrogen atoms and reversed by a thermal treatment.
http://www.sciencemag.org/cgi/content/abstract/323/5914/610

Dynamical Quorum Sensing and Synchronization in Large Populations of Chemical Oscillators
A. F. Taylor et al.
Communication between chemical oscillators in solution can mimic that of large populations of single-celled organisms.
http://www.sciencemag.org/cgi/content/abstract/323/5914/614

Single Nanocrystals of Platinum Prepared by Partial Dissolution of Au-Pt Nanoalloys
M. Schrinner et al.
Gold-platinum nanoparticles, held in polymer networks on latex beads, are converted into platinum nanocrystals.
http://www.sciencemag.org/cgi/content/abstract/323/5914/617

Cascadia Tremor Located Near Plate Interface Constrained by S Minus P Wave Times
M. La Rocca et al.
A series of microearthquakes near Puget Sound originate near or on the subduction zone fault from a recurrent source.
http://www.sciencemag.org/cgi/content/abstract/323/5914/620

Divergent Evolution of Duplicate Genes Leads to Genetic Incompatibilities Within A. thaliana
D. Bikard et al.
The divergent evolution of a duplicated gene results in genetic incompatibilities between strains of the plant Arabidopsis.
http://www.sciencemag.org/cgi/content/abstract/323/5914/623

Serotonin Mediates Behavioral Gregarization Underlying Swarm Formation in Desert Locusts
M. L. Anstey et al.
Serotonin induces the phenotypic switch from solitary to gregarious behavior in desert locusts.
http://www.sciencemag.org/cgi/content/abstract/323/5914/627

Survival from Hypoxia in C. elegans by Inactivation of Aminoacyl-tRNA Synthetases
L. L. Anderson et al.
Reduced activity of aminoacyl-transfer RNA synthetases allows for survival from hypoxic insult in the nematode C. elegans.
http://www.sciencemag.org/cgi/content/abstract/323/5914/630

Ligand-Dependent Equilibrium Fluctuations of Single Calmodulin Molecules
J. P. Junker et al.
Single-molecule force spectroscopy reveals the equilibrium dynamics of calmodulin folding and how it is modulated by peptide ligands.
http://www.sciencemag.org/cgi/content/abstract/323/5914/633

Stretching Single Talin Rod Molecules Activates Vinculin Binding
A. del Rio et al.
Force-induced stretching of proteins can expose previous cryptic binding sites and promote binding to their ligands.
http://www.sciencemag.org/cgi/content/abstract/323/5914/638

Mechanically Activated Integrin Switch Controls β1 Function
J. C. Friedland et al.
Myosin contraction and extracellular matrix stiffness drive a tension-induced cell-surface integrin switch that regulates cell signaling.
http://www.sciencemag.org/cgi/content/abstract/323/5914/642

A Human Telomerase Holoenzyme Protein Required for Cajal Body Localization and Telomere Synthesis
A. S. Venteicher et al.
Telomerase Cajal body protein 1 (TCAB1) is the fourth discovered subunit of the chromosome end-capping enzyme telomerase.
http://www.sciencemag.org/cgi/content/abstract/323/5914/644

PANT1: A Receptor-Like Protein That Promotes Polarization of an Asymmetric Cell Division in Maize
H. N. Cartwright et al.
Asymmetric cell division in plants is regulated by a receptor-like kinase, implicating a signaling cascade in cell polarization.
http://www.sciencemag.org/cgi/content/abstract/323/5914/649

Calcineurin/NFAT Signaling Is Required for Neuregulin-Regulated Schwann Cell Differentiation
S.-C. Kao et al.
The cell signaling components calcineurin/NFATc and Sox10 control Schwann cell myelination.
http://www.sciencemag.org/cgi/content/abstract/323/5914/651