

EDITORIAL

- 567 Science in the White House
John P. Holdren

NEWS OF THE WEEK

- 572 As Swine Flu Circles Globe, Scientists Grapple With Basic Questions
- 574 Hundreds Gather for Rally to Defend Animal Research
- 575 Africans' Deep Genetic Roots Reveal Their Evolutionary Story
>> Science Express Research Article by S. A. Tishkoff et al.
- 576 Obama Courts a Smitten Audience at the National Academy
- 576 Study Changes Cosmic Ray–Climate Link
- 577 From *Science's* Online Daily News Site
- 578 'Protein' in 80-Million-Year-Old Fossil Bolsters Controversial *T. rex* Claim
>> Report p. 626
- 579 IOM Panel Backs Public Disclosure of Drug Company Payments
- 579 From the *Science* Policy Blog

NEWS FOCUS

ORIGINS

- 580 On the Origin of the Immune System
>> Science Podcast
- 583 Newsmaker Interview: Defying Skeptics, Richard Scheller Thinks Genentech Will Thrive
- 584 Herschel Will Open a New Vista on Infant Stars and Galaxies ...
- 584 ... While Planck Dusts the Skies for the Fingerprints of Inflation
- 587 Corn-Based Ethanol Flunks Key Test

- 588 American Association of Physical Anthropologists Meeting
Civilization's Cost: The Decline and Fall of Human Health
Of Tools and Tubers
Reproductive Fate Versus Environment

LETTERS

- 590 Iraq Study Failed Replication Test
M. Spagat
Iraq Study Response Lacks Objectivity
F. Checchi
Confronting Racism
A. J. M. Dijker
Response
K. Kawakami et al.

592 CORRECTIONS AND CLARIFICATIONS

BOOKS ET AL.

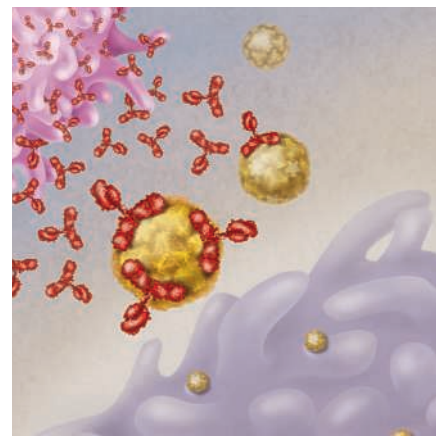
- 593 Blue Gold: World Water Wars
S. Bozzo, Director
Legacy of the Great Aletsch
N. Brandestini and S. Ellington, Directors
Onze Kost [Our Coast]
I. van Ditschuyzen, Director

POLICY FORUM

- 594 Reducing the Risks of the Wildlife Trade
K. F. Smith et al.

PERSPECTIVES

- 596 Alexander von Humboldt and the General Physics of the Earth
S. T. Jackson
- 597 Magnetic Twisters on Mercury
K.-H. Glassmeier
>> Reports pp. 606 and 610
- 598 A Circadian Loop asSIRT1s Itself
H. Wijnen
>> Reports pp. 651 and 654
- 599 The Geographic Footprint of Glacier Change
G. Balco
>> Report p. 622



page 580



page 593

- 601 A Glassy State of Supersolid Helium
J. Saunders
>> Reports pp. 631 and 632
- 602 Complicated Supercomplexes
D. M. Livingston
- 603 Avoiding Unintended Toxicity
T. E. Golde and T. L. Kukar
>> Report p. 639

CONTENTS continued >>



COVER

A mosaic of images collected as the MESSENGER spacecraft viewed Mercury obliquely on approach on 6 October 2008. The Rembrandt impact basin, 715 kilometers in diameter, is seen at the center as night falls across its eastern edge. Results from the flyby are discussed in four Reports beginning on page 606 and a Perspective on page 597.

Image: NASA/Johns Hopkins University Applied Physics Laboratory/Arizona State University/Carnegie Institution of Washington

DEPARTMENTS

- 565 This Week in *Science*
- 568 Editors' Choice
- 570 *Science* Staff
- 571 Random Samples
- 663 New Products
- 664 *Science* Careers

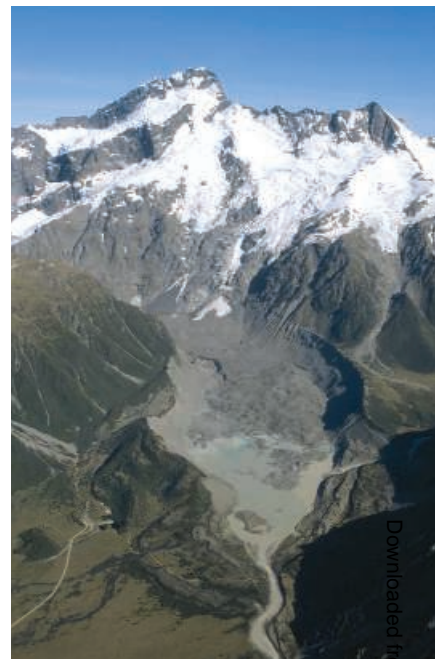
BREVIA

- 605** Neural Mechanisms of a Genome-Wide Supported Psychosis Variant
C. Esslinger et al.
A genetic polymorphism associated with schizophrenia conveys a risk for abnormal connectivity between brain regions.

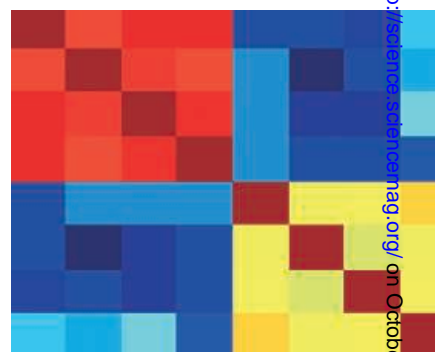
REPORTS

- 606** MESSENGER Observations of Magnetic Reconnection in Mercury's Magnetosphere
J. A. Slavin et al.
Mercury's magnetosphere responds more strongly to the influence of the Sun's magnetic field than does Earth's magnetosphere.
>> *Perspective p. 597*
- 610** MESSENGER Observations of Mercury's Exosphere: Detection of Magnesium and Distribution of Constituents
W. E. McClintock et al.
High-resolution observations of Mercury's exosphere reveal different spatial distributions of magnesium, calcium, and sodium.
>> *Perspective p. 597*
- 613** The Evolution of Mercury's Crust: A Global Perspective from MESSENGER
B. W. Denevi et al.
Data from the Mariner 10 and MESSENGER flybys imply that a substantial fraction of Mercury's surface is volcanic in origin.
- 618** Evolution of the Rembrandt Impact Basin on Mercury
T. R. Watters et al.
This basin, showing a unique pattern of radial and concentric tectonic features, represents an intermediate stage of filling by volcanic plains.
- 622** High-Frequency Holocene Glacier Fluctuations in New Zealand Differ from the Northern Signature
J. M. Schaefer et al.
The patterns of glacial advances and retreats in New Zealand during the Holocene contrast markedly with those of the Northern Hemisphere.
>> *Perspective p. 599*
- 626** Biomolecular Characterization and Protein Sequences of the Campanian Hadrosaur *B. canadensis*
M. H. Schweitzer et al.
Analysis of well-preserved tissues from an 80-million-year-old hadrosaur support the dinosaur-bird relationship.
>> *News story p. 578*

- 631** A Gross-Pitaevskii Treatment for Supersolid Helium
P. W. Anderson
- 632** Evidence for a Superglass State in Solid ^4He
B. Hunt et al.
A new theoretical argument and a study of the temperature-dependent relaxation dynamics of helium show that defects may play an important role in describing its supersolid behavior.
>> *Perspective p. 601*
- 636** Competition for Light Causes Plant Biodiversity Loss After Eutrophication
Y. Hautier et al.
A few species take advantage of fertilizer to grow fast, shade out competitors, and reduce the number of species in grassland.
- 639** γ -Secretase Heterogeneity in the Aph1 Subunit: Relevance for Alzheimer's Disease
L. Serneels et al.
Targeted knockout of only part of the γ -secretase complex lessens toxicity and still improves disease phenotypes.
>> *Perspective p. 603*
- 643** Burst Spiking of a Single Cortical Neuron Modifies Global Brain State
C. T. Li et al.
Stimulation of a single nerve cell triggers a switch between slow wave and rapid eye movement sleep.
- 646** Self-Control in Decision-Making Involves Modulation of the vmPFC Valuation System
T. A. Hare et al.
The neural circuitry underlying choice and self-control is revealed by modeling and brain imaging.
- 649** Exchange of Genetic Material Between Cells in Plant Tissue Grafts
S. Stegemann and R. Bock
Plant genes can transfer between cells and across graft junctions, possibly explaining horizontal gene transfer.
- 651** Circadian Clock Feedback Cycle Through NAMPT-Mediated NAD^+ Biosynthesis
K. M. Ramsey et al.
- 654** Circadian Control of the NAD^+ Salvage Pathway by CLOCK-SIRT1
Y. Nakahata et al.
A transcriptional-enzymatic feedback loop controls interactions between metabolism and circadian rhythms in mouse cells.
>> *Perspective p. 598*



page 599 & 622



page 659

- 657** A Cytidine Deaminase Edits C to U in Transfer RNAs in Archaea
L. Randau et al.
A nonconventional cytosine is edited out to allow a functional transfer RNA structure to form.
- 659** A Yeast Hybrid Provides Insight into the Evolution of Gene Expression Regulation
I. Tirosh et al.
Gene expression between species of yeast may diverge, but recombination rewires their offspring into vigorous hybrids.

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The Genetic Structure and History of Africans and African Americans

S. A. Tishkoff et al.

A genetic study illuminates population history, as well as the relationships among and the origin of major language families.

10.1126/science.1172257

>> *News story p. 575; Science Podcast*

Abscisic Acid Inhibits Type 2C Protein Phosphatases via the PYR/PYL Family of START Proteins

S.-Y. Park et al.

10.1126/science.1173041

Regulators of PP2C Phosphatase Activity Function as Abscisic Acid Sensors

Y. Ma et al.

Links between two ancient multimer protein families signal responses to the plant hormone abscisic acid.

10.1126/science.1172408

Dispersion of the Excitations of Fractional Quantum Hall States

I. V. Kukushkin et al.

The dispersion of excitations in a buried two-dimensional electron system can now be probed.

10.1126/science.1171472

Superconductivity at the Two-Dimensional Limit

S. Qin et al.

Superconductivity persists in lead films down to just two monolayers thick.

10.1126/science.1170775

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D. B. Searls

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RESEARCH ARTICLE: G α_{i1} and G α_{i3} Are Required for Epidermal Growth Factor–Mediated Activation of the Akt–mTORC1 Pathway

C. Cao et al.

Two members of the G α_i family of G proteins form complexes with EGFR and the adaptor protein Gab1 to mediate activation of Akt.

RESEARCH ARTICLE: Ligand Binding to LRP1 Transactivates Trk Receptors by a Src Family Kinase–Dependent Pathway

Y. Shi et al.

Trk receptor–mediated neurite outgrowth is triggered by distinct ligands that activate LRP1.

RESEARCH ARTICLE: Neurotransmitters Drive Combinatorial Multistate Postsynaptic Density Networks

M. P. Coba et al.

Analysis of protein phosphorylation patterns provides insight into the organization of molecular networks at the postsynaptic density.

PERSPECTIVE: Nontraditional Signaling Mechanisms of Lipoprotein Receptors

G. W. Rebeck

Lipoprotein receptors can trigger calcium-dependent kinase activation, gene transcription, or TrkA receptor–dependent signaling.

REVIEW: Signaling by Gasotransmitters

A. K. Mustafa et al.

Nitric oxide, carbon monoxide, and hydrogen sulfide act as messengers in the cardiovascular, immune, and nervous systems.

PRESENTATION: Mechanobiology of the Skeleton

C. H. Turner et al.

Mechanical force induces osteogenesis by repressing the production of sclerostin, an inhibitor of Wnt signaling.

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B. L. Benderly

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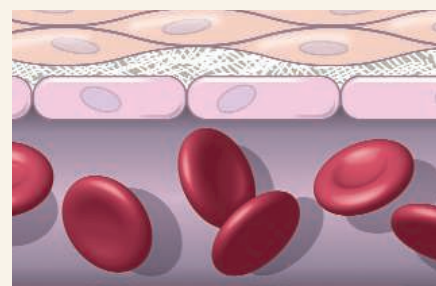
L. S. Chiu

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E. Pain

Romanian chemist Mihail Barboiu keeps several projects going at several institutions.



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