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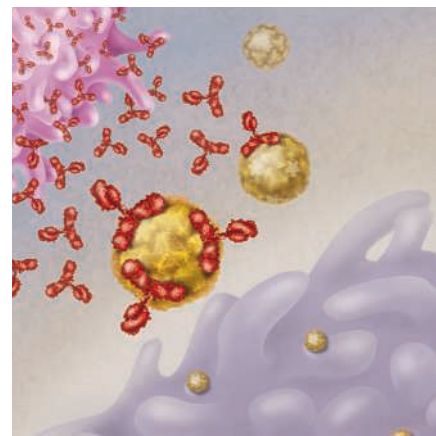
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A mosaic of images collected as the MESSENGER spacecraft viewed Mercury obliquely on approach on 6 October 2008. The Rembrandt impact basin, 715 kilometers in diameter, is seen at the center as night falls across its eastern edge. Results from the 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

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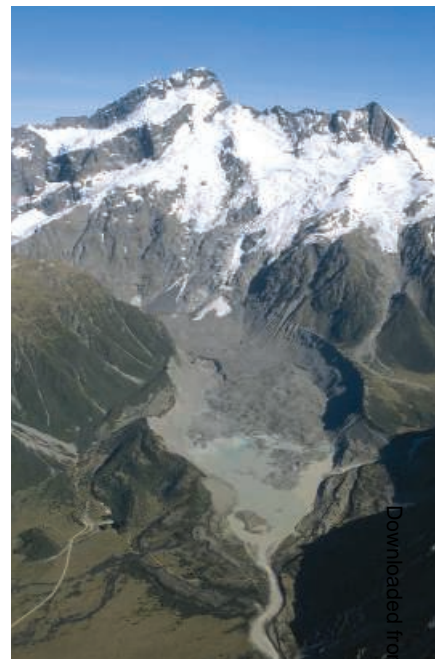
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A genetic polymorphism associated with schizophrenia conveys a risk for abnormal connectivity between brain regions.

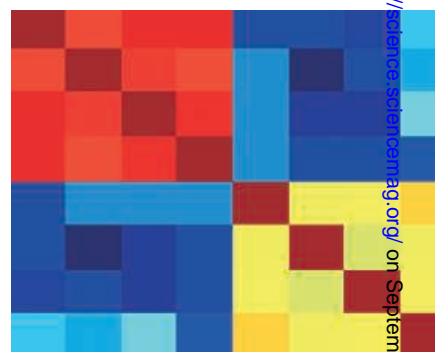
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The Genetic Structure and History of Africans and African Americans

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

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

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Dispersion of the Excitations of Fractional Quantum Hall States

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10.1126/science.1171472

Superconductivity at the Two-Dimensional Limit

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

10.1126/science.1170775

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

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

RESEARCH ARTICLE: Neurotransmitters Drive Combinatorial Multistate Postsynaptic Density Networks

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

PERSPECTIVE: Nontraditional Signaling Mechanisms of Lipoprotein Receptors

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

REVIEW: Signaling by Gasotransmitters

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

PRESENTATION: Mechanobiology of the Skeleton

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

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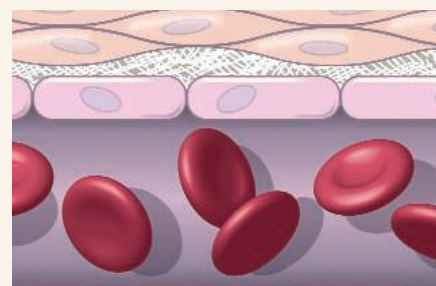
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E. Pain

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



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SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue, NW, Washington, DC 20005. Periodicals Mail postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 2009 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): \$146 (\$74 allocated to subscription). Domestic institutional subscription (51 issues): \$835; Foreign postage extra: Mexico, Caribbean (surface mail) \$55; other countries (air assist delivery) \$85. First class, airmail, student, and emeritus rates on request. Canadian rates with GST available upon request, GST #1254 88122. Publications Mail Agreement Number 1069624. **Printed in the U.S.A.**

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324 (5927)

Science **324** (5927), 565-663.

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