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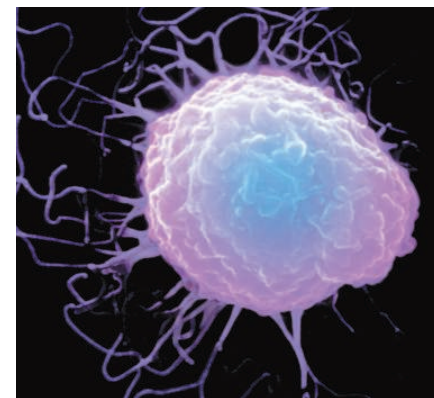
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Photo: Simon Rawles/Alamy

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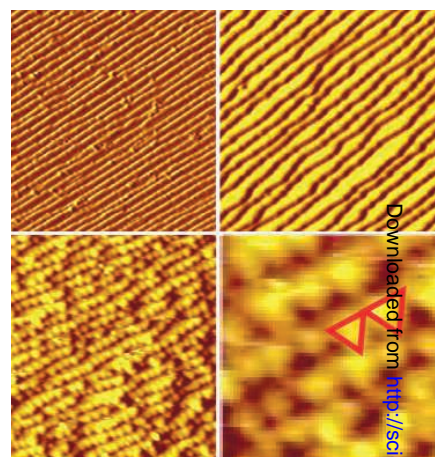
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Dark Matter Search Results from the CDMS II Experiment

The CDMS II Collaboration

Details of possible, but unlikely, detection events produced by dark matter are reported.
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A Stratified Redox Model for the Ediacaran Ocean

C. Li et al.

Geological records in China indicate that ocean chemistry may explain the delay in life's biggest diversification period.
10.1126/science.1182369

Light-Controlled Self-Assembly of Semiconductor Nanoparticles into Twisted Ribbons

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The photooxidation of CdS nanoparticles within CdTe nanoparticle ribbons causes surface stresses that lead to twisting.
10.1126/science.1177218

Doc2b Is a High-Affinity Ca²⁺ Sensor for Spontaneous Neurotransmitter Release

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Spontaneous synaptic vesicle fusion is triggered by soluble proteins that compete with synaptotagmins to induce membrane curvature.
10.1126/science.1183765

Significant Acidification in Major Chinese Croplands

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10.1126/science.1184188

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Highlights From Our Daily News Coverage

Australia, Antarctica Linked by Climate

Carbon dioxide emissions could be leading to record drought and snowfalls.

Can Thin Mountain Air Make You Slim?

High living—in the topographical sense—causes weight loss, a study suggests.

Better to React Than to Act

Legendary quantum physicist's speculations about Westerns inspire discovery about reaction speed.

SCIENCE SIGNALING

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RESEARCH ARTICLE: ARD1 Stabilization of TSC2 Suppresses Tumorigenesis Through the mTOR Signaling Pathway

H.-P. Kuo et al.

Acetylation by ARD1 of an inhibitor of mammalian target of rapamycin may inhibit cancer growth.

RESEARCH ARTICLE: SUMOylation Mediates the Nuclear Translocation and Signaling of the IGF-1 Receptor

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Attachment of SUMO lets insulin-like growth factor receptors act as transcriptional regulators in the nucleus.

PERSPECTIVE: Glucocorticoid Receptor DNA Binding Decoy Is a Gas

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SCIENCE CAREERS

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Plant Geneticist Cultivating a Future for Peanut Farming in Uganda

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David Kalule Okello is one of Uganda's weapons in the battle against hunger.

Careers in Food Security Span Several Disciplines

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Feeding the planet is an urgent issue that needs scientists in many different fields.

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PERSPECTIVE: Genetic Polymorphisms—A Cornerstone of Translational Biobehavioral Research

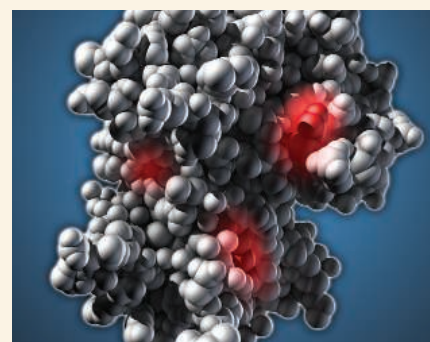
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Understanding common genetic variation can serve to explain individual behaviors.

COMMENTARY: Liberating Health Data for Clinical Research Applications

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Electronic health record systems represent important new strategies to improve health care.



SCIENCE SIGNALING

Sites of sumoylation on the IGF-1R.

RESEARCH ARTICLE: The Origins of Sexually Transmitted HIV Among Men Who Have Sex with Men

D. M. Butler et al.

A cell-free virus in semen is the origin of sexually transmitted HIV among men who have sex with men.

RESEARCH ARTICLE: A Monoclonal Antibody Against $\alpha V\beta 3$ Integrin Inhibits Development of Atherosclerotic Lesions in Diabetic Pigs

L. A. Maile et al.

An antibody directed at the C terminal of an integrin subunit can prevent atherosclerosis in diabetic pigs.

SCIENCE PODCAST

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Download the 12 February *Science* Podcast to hear about measuring food insecurity, rethinking agriculture for the 21st century, and reducing meat consumption.

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