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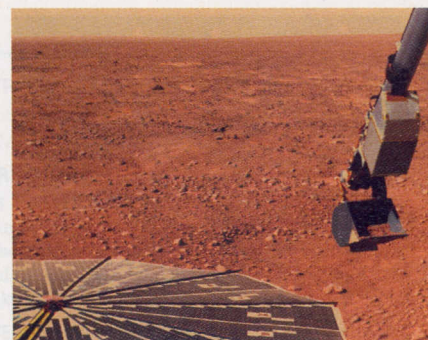
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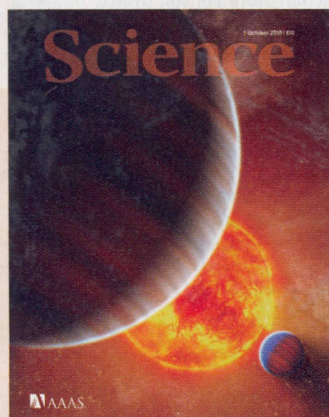
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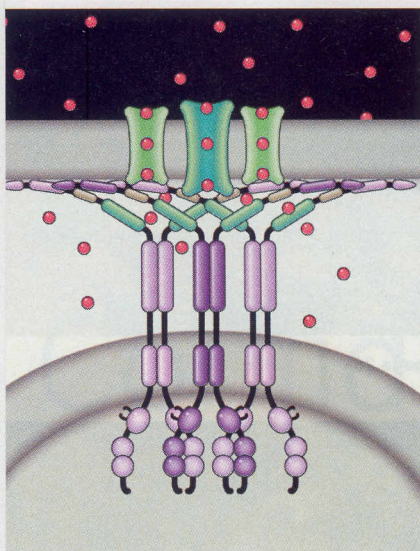
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An artist's rendition of the Kepler-9 system in which two Saturn-size planets transit the same star. The radii of the planets are roughly 8% of the radius of the star, which itself is 10% larger in radius than our Sun. Timing variations in the transits of these planets provide a signature of their gravitational interaction and can be used to establish their masses. See page 51.

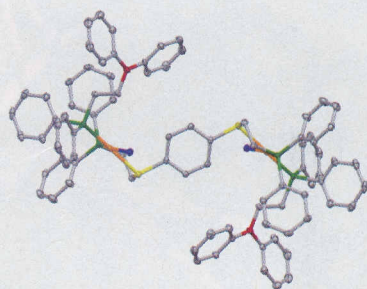
Image: NASA/Ames/JPL Caltech/T. Pyle

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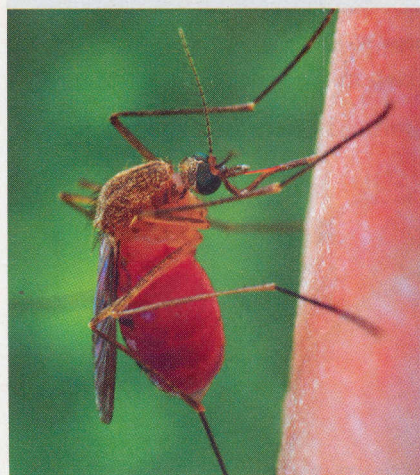
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SCIENCEONLINE

SCIENCEEXPRESS

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Fossil Evidence for Evolution of the Shape and Color of Penguin Feathers

J. A. Clarke et al.

A fossil penguin shows that the wing and feather form evolved before distinctive microstructural changes in the feathers.

10.1126/science.1193604

Evidence for a Collective Intelligence Factor in the Performance of Human Groups

A. W. Woolley et al.

A metric for group performance on a battery of cognitive tasks yields a group intelligence quantity: collective intelligence.

10.1126/science.1193147

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Structure of a Eukaryotic CLC Transporter Defines an Intermediate State in the Transport Cycle

L. Feng et al.

The structure of a chloride transporter and its regulatory domain provides insight into the ion-exchange mechanism.

10.1126/science.1195230

Polarized Myosin Produces Unequal-Size Daughters During Asymmetric Cell Division

G. Ou et al.

Motor proteins help to produce developmentally distinct daughter cells during development.

10.1126/science.1196112

TECHNICALCOMMENTS

Comment on "The Human K-Complex Represents an Isolated Cortical Down-State"

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Full text at www.sciencemag.org/cgi/content/full/330/6000/35-a

Response to Comment on "The Human K-Complex Represents an Isolated Cortical Down-State"

S. S. Cash et al.

Full text at www.sciencemag.org/cgi/content/full/330/6000/35-b

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Highlights From Our Daily News Coverage

Primordial Magnetic Field May Permeate the Universe

Halos in images of supermassive black holes reveal another possible big bang leftover.

Mating Games at Meerkat Manor

Study with animal TV stars reveals the sophisticated strategy of dominant females.

The Sun Can Lob Curveballs

Scientists discover that some solar magnetic storms will loop toward Earth.

SCIENCE SIGNALING

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The Signal Transduction Knowledge Environment

RESEARCH ARTICLE: Signaling from the Endoplasmic Reticulum Activates Brassinosteroid Signaling and Promotes Acclimation to Stress in *Arabidopsis*

P. Che et al.

BR signaling may integrate stress responses and growth processes to optimize growth under challenging environmental conditions.

RESEARCH ARTICLE: Coupling Mechanism of a GPCR and a Heterotrimeric G Protein During Chemoattractant Gradient Sensing in *Dictyostelium*

X. Xu et al.

Imaging analyses and computer simulations suggest that a G protein-coupled receptor and its G protein associate only in the presence of ligand.

RESEARCH ARTICLE: Molecular Mechanism of Calcium Channel Regulation in the Fight-or-Flight Response

M. D. Fuller et al.

PERSPECTIVE: β -Adrenergic Regulation of the L-Type Ca^{2+} Channel $\text{Ca}_v1.2$ by PKA Rekindles Excitement

J. W. Hell

Modulation of cardiac Ca^{2+} channels by protein kinase A in the fight-or-flight response involves their proteolytic processing and just the right amount of anchoring protein AKAP.

PERSPECTIVE: Sphingolipids—The Oil on the TRAFire That Promotes Inflammation

G. Napolitano and M. Karin

Lipid second messengers are required for signaling through tumor necrosis factor and Toll-like receptors.

SCIENCE CAREERS

www.sciencereers.org/career_magazine

Free Career Resources for Scientists

Taken for Granted: Making Book on America's Universities

B. L. Benderly

A spate of recent books presents a wide range of analyses—and some common answers—about what ails academe.

Expand Your Professional-Skills Training

E. Pain

Voluntary activities such as helping to organize conferences offer early-career scientists opportunities to gain new skills and broaden horizons.

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Find advice, opinions, news, funding opportunities, and links to other career-related resources.

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Integrating Medicine and Science

COMMENTARY: Why University-Industry Partnerships Matter

A. M. Boccanfuso

Optimizing the process by which discoveries are translated to innovative products requires enhanced links between academia and industry.

PERSPECTIVE: Bacterial Exploitation of Host Cell Signaling

R. Lu and M. B. Goldberg

A new bacterial phosphatase that perturbs host-cell signaling circuits highlights a class of pathogen proteins that may serve as potent therapeutic targets.

RESEARCH ARTICLE: Interfering with Resistance to Smoothened Antagonists by Inhibition of the PI3K Pathway in Medulloblastoma

S. Buonomi et al.

Resistance of medulloblastoma to Smo antagonists can be delayed or prevented by specific drug combinations.

RESEARCH ARTICLE: A Central Role for Free Heme in the Pathogenesis of Severe Sepsis

R. Larsen et al.

Heme from red blood cells released in septic shock worsens organ dysfunction and increases the risk of death, but can be overcome by a scavenger of free heme.

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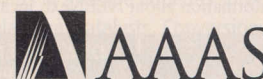
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Science Policy News and Analysis

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