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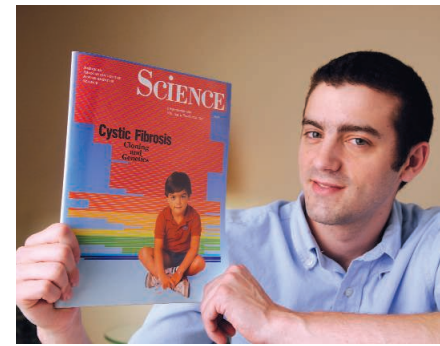
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- 1519 Nutrient Imbalances in
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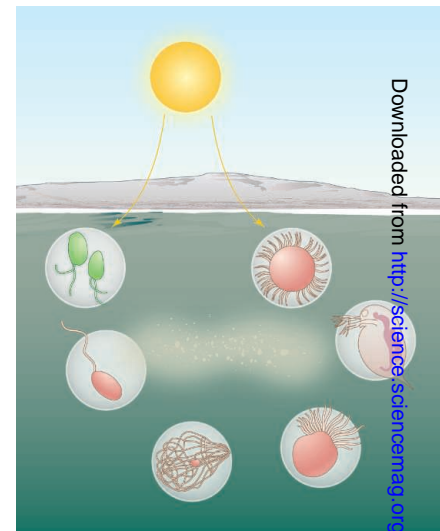
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COVER

The current global outbreak of influenza A (H1N1) in humans appears to have originated in Mexico from infected pigs. The cover portrait is of "Patient Zero" from La Gloria, Veracruz, who is now well. Fraser *et al.* (page 1557) report on an initial epidemiological analysis and offer baseline estimates for transmissibility while acknowledging the prevailing uncertainties at this early stage of the epidemic.

Photo: Erich Schlegel/Rapport/Newscom

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- 1535 Sexual Intercourse Involving Giant Sperm in Cretaceous Ostracode
R. Matzke-Karasz et al.
Giant ostracode sperm date back at least 100 million years ago.

RESEARCH ARTICLE

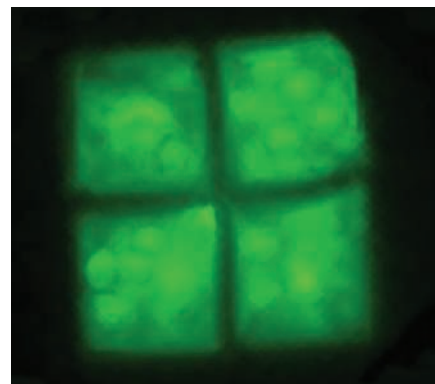
- 1536 Synapse- and Stimulus-Specific Local Translation During Long-Term Neuronal Plasticity
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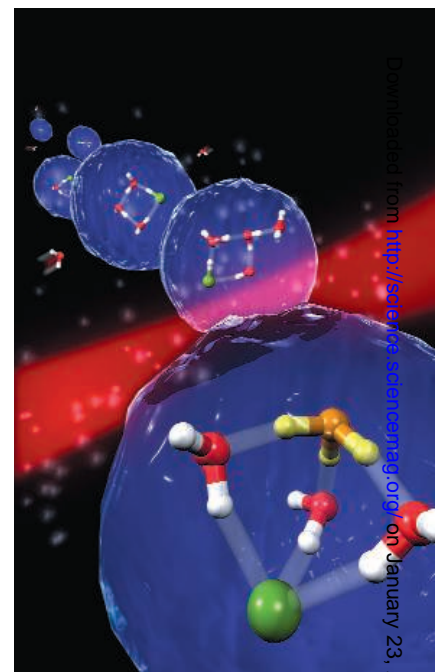
- 1540 Solar-Like Oscillations in a Massive Star
K. Belkacem et al.
A huge star has been discovered that shows a variety of regular patterns of pulsation.
- 1542 Colloidal Quantum-Dot Photodetectors Exploiting Multiexciton Generation
V. Sukhovatkin et al.
Decay of multiple electron-hole pairs, a hindrance in photovoltaic design, proves a boon to sensitivity in a photoconductive detector.
- 1545 Aggregation-Induced Dissociation of $\text{HCl}(\text{H}_2\text{O})_4$ Below 1 K: The Smallest Droplet of Acid
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- 1554 Fossil Plant Relative Abundances Indicate Sudden Loss of Late Triassic Biodiversity in East Greenland
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Plant fossils from East Greenland record an abrupt decrease in abundance as CO_2 levels increased.

- 1557 Pandemic Potential of a Strain of Influenza A (H1N1): Early Findings
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- 1572 A Vital Role for Interleukin-21 in the Control of a Chronic Viral Infection
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- 1580 Merkel Cells Are Essential for Light-Touch Responses
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In the skin, special cells with specific properties endow their afferent nerves with the ability to resolve fine spatial details.
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- 1583 Recruitment of an Area Involved in Eye Movements During Mental Arithmetic
A. Knops et al.
Addition and subtraction are encoded in the same part of the brain that is responsible for eye movements and spatial attention.

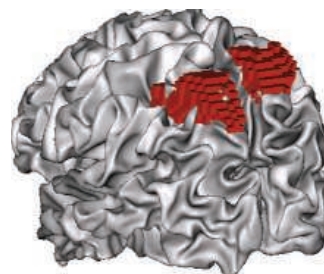
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Successful Conservation of a Threatened *Maculinea* Butterfly

J. A. Thomas et al.

Prediction of population dynamics in relation to habitat requirements has led to a conservation success in the UK.

10.1126/science.1175726

Penumbral Structure and Outflows in Simulated Sunspots

M. Rempel et al.

Simulations of sunspots show that their structure and outflows can be understood in terms of convection in a magnetic field.

10.1126/science.1173798

Consistency Between Satellite-Derived and Modeled Estimates of the Direct Aerosol Effect

G. Myhre

Observational data and modeling narrows the large range of uncertainty about how much aerosols influence climate.

>> [Science Podcast](#)

10.1126/science.1174461

Functional Amyloids as Natural Storage of Peptide Hormones in Pituitary Secretory Granules

S. K. Maji et al.

Peptide and protein hormones are stored in secretory granules in a non-pathological amyloid conformation.

10.1126/science.1173155

Translocator Protein (18 kD) as Target for Anxiolytics Without Benzodiazepine-Like Side Effects

R. Rupprecht et al.

Possible drug alternative for rapid treatment of anxiety disorders could replace benzodiazepines.

10.1126/science.1175055

TECHNICALCOMMENTS

Comment on "Experimental Test of Self-Shielding in Vacuum Ultraviolet Photodissociation of CO"

J. R. Lyons et al.

full text at www.sciencemag.org/cgi/content/full/324/5934/1516-a

Comment on "Experimental Test of Self-Shielding in Vacuum Ultraviolet Photodissociation of CO"

S. R. Federman and E. D. Young

full text at www.sciencemag.org/cgi/content/full/324/5934/1516-b

Comment on "Experimental Test of Self-Shielding in Vacuum Ultraviolet Photodissociation of CO"

Q.-Z. Yin et al.

full text at www.sciencemag.org/cgi/content/full/324/5934/1516-c

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S. Chakraborty et al.

full text at www.sciencemag.org/cgi/content/full/324/5934/1516-d

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Some raindrops fall to the ground much faster than expected.

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RESEARCH ARTICLE: Suppression of LPS-Induced TNF- α Production in Macrophages by cAMP Is Mediated by PKA-AKAP95-p105

E. A. Wall et al.

PERSPECTIVE: Putting on the Brakes—Cyclic AMP as a Multipronged Controller of Macrophage Function

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Distinct anchoring proteins enable cAMP signaling to selectively modulate macrophage responses to pathogens.

REVIEW: The Vitamin D Sterol-Vitamin D Receptor Ensemble Model Offers Unique Insights into Both Genomic and Rapid-Response Signaling

M. T. Mizwicki and A. W. Norman

Different vitamin D conformations binding to different pockets of a flexible receptor could elicit distinct responses.

PROTOCOL: Using a Microfluidic Device for High-Content Analysis of Cell Signaling

R. Cheong et al.

This method for analyzing individual cells reveals differences in responses masked by averaging across the population.

SCIENCE CAREERS

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Free Career Resources for Scientists

Professional Polish

S. Webb

When dressing for a job interview, it pays to cultivate conformity and attention to detail.

Following in Darwin's Footsteps

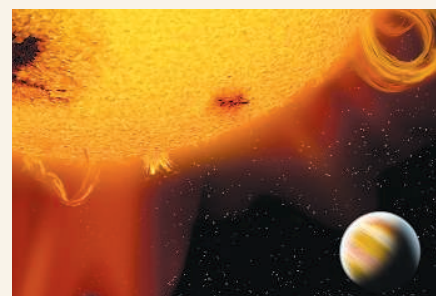
E. Pain

Jordi Serrallonga has developed a career where research and travel are both adventures.

Tooling Up: Four Must-Haves for Convincing Communication

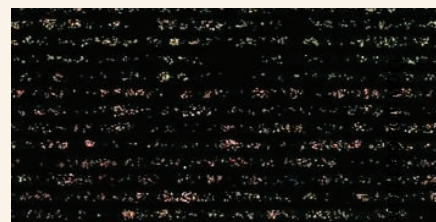
D. Jensen

Anyone can learn to communicate effectively by learning a few key points.



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Tidal forces need to be just right for life.



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