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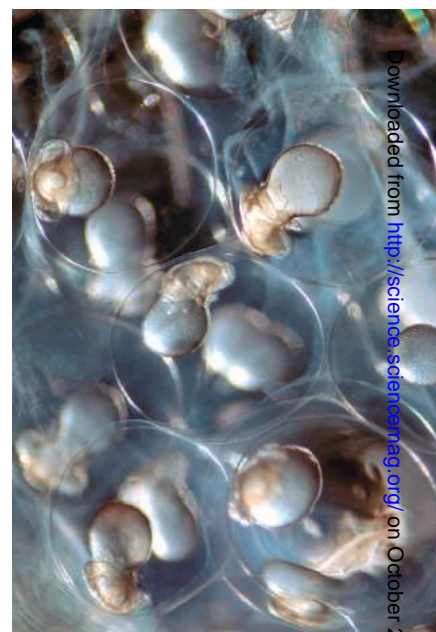
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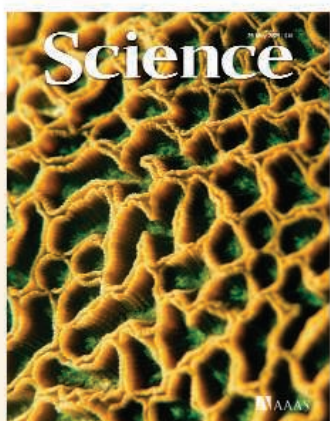


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COVER

A close-up of the tropical coral *Favia speciosa*. The position and age of related fossil corals have been used to constrain the timing of sea-level rise during the penultimate deglacial period. The timing of past sea-level change, relative to potential forcings, can help determine the mechanisms of climate change and the speed of ice sheet collapse. See page 1186.

Photo: Getty Images

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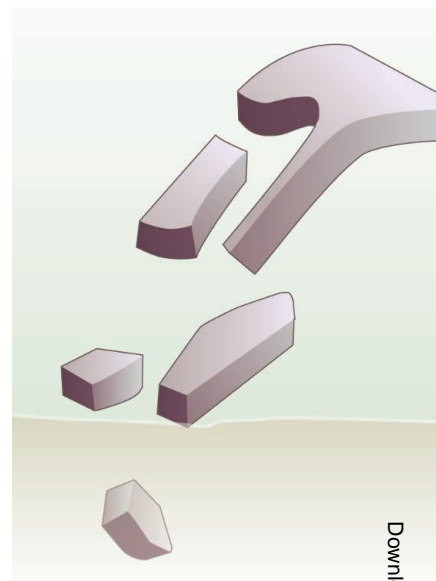
- 1165 Entropic Evidence for Linguistic Structure in the Indus Script
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Analysis of the pattern of symbols confirms the linguistic role of ancient signs.

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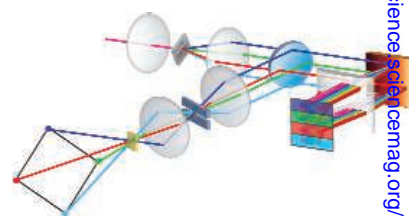
- 1166 Magnetic Field Sensing Beyond the Standard Quantum Limit Using 10-Spin NOON States
J. A. Jones et al.
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- 1169 Two-Quantum 2D FT Electronic Spectroscopy of Biexcitons in GaAs Quantum Wells
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- 1173 Tearing of Stagnant Slab
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- 1175 Assessment of Undiscovered Oil and Gas in the Arctic
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- 1179 Volcanism, Mass Extinction, and Carbon Isotope Fluctuations in the Middle Permian of China
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- 1183 Implications of Limiting CO₂ Concentrations for Land Use and Energy
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- 1186 Penultimate Deglacial Sea-Level Timing from Uranium/Thorium Dating of Tahitian Corals
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- 1190 Topographical and Temporal Diversity of the Human Skin Microbiome
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The human skin provides a landscape of dry, damp, and greasy niches for a diversity of symbiotic microorganisms.
- 1192 A Role for the CHC22 Clathrin Heavy-Chain Isoform in Human Glucose Metabolism
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A human-specific vesicle-forming protein regulates relocation of a glucose transporter to the cell membrane.
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Induction of the hypoxic response in a worm slows aging and enhances resistance to proteotoxicity.
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Synchrony in neuronal firing within a specific frequency range may regulate interactions between brain structures.
- 1210 Genome-Wide Identification of Human RNA Editing Sites by Parallel DNA Capturing and Sequencing
J. B. Li et al.
Hundreds of new RNA editing sites are identified in the human genome.
- 1213 Unstable Tandem Repeats in Promoters Confer Transcriptional Evolvability
M. D. Vences et al.
Unstable repetitive DNA in the control regions of yeast genes modulates the evolution of chromatin structure and gene expression.

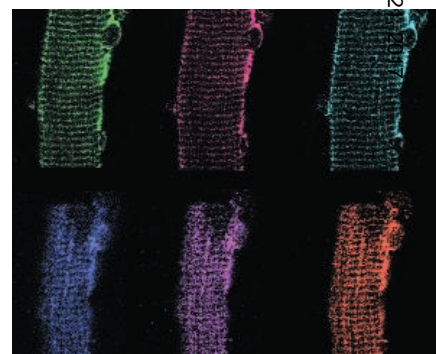
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Antigenic and Genetic Characteristics of Swine-Origin 2009 A(H1N1) Influenza Viruses Circulating in Humans

R. J. Garten et al.

Evolutionary analysis suggests a triple reassortant avian-to-pig origin for the 2009 influenza A(H1N1) outbreak.

10.1126/science.1176225

>> *News story p. 1127*

Essential Role of the Glycosyltransferase Sxc/Ogt in Polycomb Repression

M. C. Gambetta et al.

The Polycomb-group protein super sex combs acts to glycosylate a second Polycomb repressor protein.

10.1126/science.1169727

IL-21R on T Cells Is Critical for Sustained Functionality and Control of Chronic Viral Infection

A. Fröhlich et al.

Thymus cells of the immune system require the cytokine interleukin-21 to control chronic viral infections.

10.1126/science.1172815

Structure and Mechanism of an Amino Acid Antiporter

X. Gao et al.

The architecture of a membrane protein channel helps explain how *Escherichia coli* survive the acidic conditions of the stomach.

10.1126/science.1173654

Ventral Tegmental Area BDNF Induces an Opiate-Dependent-Like Reward State in Naïve Rats

H. Vargas-Perez et al.

A growth factor involved in neuronal plasticity alters neurons in a specific area of the brain after chronic exposure to opioid drugs.

10.1126/science.1168501

Venezuelan Science at Risk

C. Bifano

10.1126/science.1176733

TECHNICALCOMMENTS

Comment on "A Large Excess in Apparent Solar Oblateness Due to Surface Magnetism"

J. R. Kuhn et al.

full text at www.sciencemag.org/cgi/content/full/324/5931/1143-b

Response to Comment on "A Large Excess in Apparent Solar Oblateness Due to Surface Magnetism"

M. D. Fivian et al.

full text at www.sciencemag.org/cgi/content/full/324/5931/1143-c

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Biochemical signals from tumors cause anxiety and depression in rats.

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The Signal Transduction Knowledge Environment

EDITORIAL GUIDE: "Omic" Risk Assessment

M. B. Major and R. T. Moon

Integration of multiple data sets is the key to hit validation.

RESEARCH ARTICLE: System-Wide Changes to SUMO Modifications in Response to Heat Shock

F. Golebiowski et al.

SUMO is redistributed among many targets to mediate both short- and long-term signaling events.

RESEARCH ARTICLE: Bruton's Tyrosine Kinase Revealed as a Negative Regulator of Wnt-β-Catenin Signaling

R. G. James et al.

Combining an siRNA screen with a small-molecule screen reveals a negative pathway regulator.

REVIEW: CD36, a Scavenger Receptor Involved in Immunity, Metabolism, Angiogenesis, and Behavior

R. L. Silverstein and M. Febbraio

Signaling by CD36 is ligand and cell specific and is implicated in multiple human diseases.

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SCIENCE CAREERS

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R. Ley

Two-scientist couples do not have to compromise their research careers.

>> *News story p. 1136*

A Tale of Two Pathologists

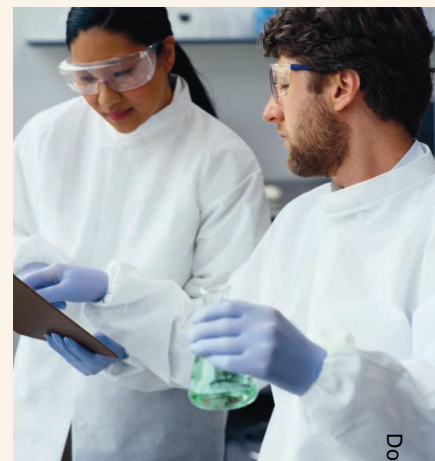
A. Sasso

Terrill Topps and Dorkina Myrick have two careers, three doctoral degrees, and one life together.

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E. Pain

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