

EDITORIAL

- 884 Nurturing Young Scientists
James Gentile and Sherwood Boehlert
>> *Education Forum p. 906*

NEWS OF THE WEEK

- 888 After Outcry, Oil Data Inches Into the Open
- 888 The Case of the Missing \$470 Million in BP's Promised Research Fund
- 890 From the *Science* Policy Blog
- 890 Investigation Leaves Field in the Dark About a Colleague's Work
- 891 From *Science's* Online Daily News Site
- 892 One-Two Punch Elevates Rats to the Knockout Ranks
- 893 Senator Builds His Legacy With University of Alabama Earmarks
- 894 U.S. Astronomers Unveil Stripped-Down 'Short List'

NEWS FOCUS

- 896 Free Journals Grow Amid Ongoing Debate
>> *Science Podcast*
- 899 Pavlovsk's Hopes Hang on a Tweet

LETTERS

- 900 Local Programs Take a Bite Out of Malaria
C. J. Shiff and P. Thuma
National Indicators Show Biodiversity Progress
H. Xu et al.
Response
S. H. M. Butchart et al.
Putting Census Data to Work
T. D. Brewer
Life in Science: Up a Creek in Indonesia
B. M. Beehler

902 TECHNICAL COMMENT ABSTRACTS

BOOKS ET AL.

- 904 The Plundered Planet
P. Collier, reviewed by B. S. Low
- 905 Close Examination
M. E. Wieseman and A. Roy, curators; A Closer Look
M. E. Wieseman, reviewed by P. Fara

EDUCATION FORUM

- 906 Partnerships for STEM Education
K. M. Foster et al.
>> *Editorial p. 884*

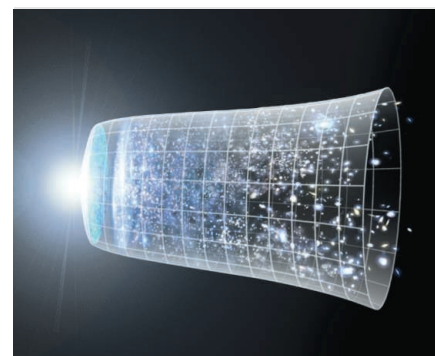
PERSPECTIVES

- 908 A Tale of Two Jets
N. Yunes
>> *Report p. 927*
- 909 Nuclei Get TAN Lines
D. A. Starr
>> *Report p. 956*
- 910 Directing Light Emission from Quantum Dots
H. Giessen and M. Lippitz
>> *Report p. 930*
- 911 Replication Error Amplified
S. Kaochar et al.
>> *Report p. 943*
- 913 A Glutamate Pathway to Faster-Acting Antidepressants?
J. F. Cryan and O. F. O'Leary
>> *Report p. 959*
- 914 Double TIP-ping
H. Singh and I. A. Demarco
>> *Research Article p. 917*

BREVIA

- 916 Land-Level Changes Produced by the M_w 8.8 2010 Chilean Earthquake
M. Fariás et al.
The 2010 M_w 8.8 Chilean earthquake ruptured ~500 kilometers and vertically displaced over 3 meters.

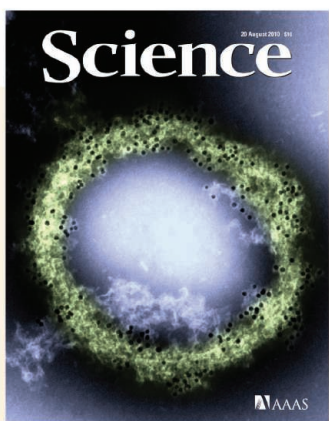
CONTENTS continued >>



page 894



pages 910 & 930



COVER

Immuno-electron micrograph of a plastid-dividing ring (diameter ~500 nm), a structure required for chloroplast division, isolated from the unicellular alga *Cyanidioschyzon merolae*. Immunogold particles (black dots) indicate localization of the glycosyltransferase protein PDR1 (protein dividing ring 1), which forms a ring with carbohydrates that constricts to physically divide the chloroplast. See page 949.

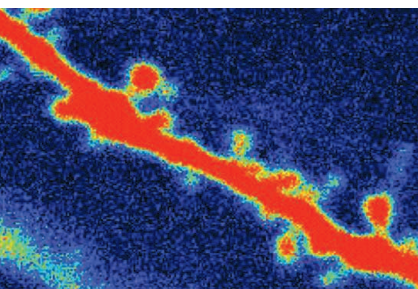
Image: Yamato Yoshida, Haruko Kuroiwa, Tsuneyoshi Kuroiwa/Research Information Center for Extremophile, Rikkyo University, Tokyo, Japan

DEPARTMENTS

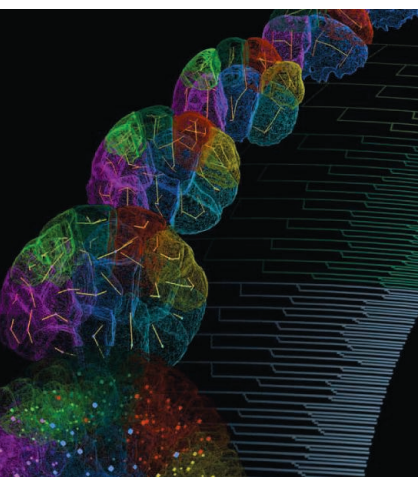
- 882 This Week in *Science*
- 885 Editors' Choice
- 886 *Science* Staff
- 887 Random Samples
- 972 New Products
- 973 *Science* Careers



page 924



pages 913 & 959



page 967

RESEARCH ARTICLE

- 917 **PTIP Promotes Chromatin Changes Critical for Immunoglobulin Class Switch Recombination**
J. A. Daniel et al.
 A factor that regulates chromatin accessibility and recombination during immunoglobulin rearrangements is identified.
 >> *Perspective p. 914*

REPORTS

- 924 **Cosmological Constraints from Strong Gravitational Lensing in Clusters of Galaxies**
E. Jullo et al.
 Light from distant sources bends around massive intervening objects and helps to reveal the properties of dark energy.
- 927 **Dual Jets from Binary Black Holes**
C. Palenzuela et al.
 Simulations show that merging black holes may produce a detectable electromagnetic signature.
 >> *Perspective p. 908*
- 930 **Unidirectional Emission of a Quantum Dot Coupled to a Nanoantenna**
A. G. Curto et al.
 An antenna designed for optical wavelengths is used to control the direction of the light emitted from a quantum dot.
 >> *Perspective p. 910*
- 933 **Ceria Maintains Smaller Metal Catalyst Particles by Strong Metal-Support Bonding**
J. A. Farmer and C. T. Campbell
 The stability of cerium oxide surfaces allows deposited silver nanoparticles to maintain a small size distribution.
- 936 **Evidence of Recent Thrust Faulting on the Moon Revealed by the Lunar Reconnaissance Orbiter Camera**
T. R. Watters et al.
 The relatively young age of the faults and their distribution suggest global, late-stage contraction of the Moon.
- 940 **Drought-Induced Reduction in Global Terrestrial Net Primary Production from 2000 Through 2009**
M. Zhao and S. W. Running
 Terrestrial biomass declined during the hot past decade, reversing the trend of the previous 20 years.

- 943 **Loss of DNA Replication Control Is a Potent Inducer of Gene Amplification**
B. M. Green et al.
 Re-replication of DNA and homologous recombination between repetitive elements can cause genome instability.
 >> *Perspective p. 911*
- 946 **The *Legionella* Effector Protein DrrA AMPylates the Membrane Traffic Regulator Rab1b**
M. P. Müller et al.
 An intracellular bacterial pathogen interferes with host cell membrane trafficking.
- 949 **Chloroplasts Divide by Contraction of a Bundle of Nanofilaments Consisting of Polyglucan**
Y. Yoshida et al.
 Enzymatic transfer of simple sugars is essential for the formation of the chloroplast-division machinery.
- 953 **Conserved Fungal LysM Effector Ecp6 Prevents Chitin-Triggered Immunity in Plants**
R. de Jonge et al.
 A fungal protein binds to a host cell wall component to allow the fungus to escape immune responses.
- 956 **Linear Arrays of Nuclear Envelope Proteins Harness Retrograde Actin Flow for Nuclear Movement**
G. W. G. Luxton et al.
 An actin-dependent mechanism is involved in moving nuclei so that they are properly positioned for cell migration.
 >> *Perspective p. 909*
- 959 **mTOR-Dependent Synapse Formation Underlies the Rapid Antidepressant Effects of NMDA Antagonists**
N. Li et al.
 Ketamine, an anaesthetic and recreational drug, rapidly increases synaptic signaling and antidepressant behavioral responses.
 >> *Perspective p. 913; Science Podcast*
- 964 **Females Use Multiple Mating and Genetically Loaded Sperm Competition to Target Compatible Genes**
S. R. Pryke et al.
 Female birds that have multiple mates favor fertilization by the most genetically compatible father.
- 967 **Cell Lineage Reconstruction of Early Zebrafish Embryos Using Label-Free Nonlinear Microscopy**
N. Olivier et al.
 Time-lapse recording characterizes the rhythm and cleavage pattern of the embryo during early stages of development.

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Tracking Hydrocarbon Plume Transport and Biodegradation at *Deepwater Horizon*

R. Camilli et al.

In late June 2010, the *Deepwater Horizon* oil plume stretched more than 35 kilometers at a depth of 1100 meters.

10.1126/science.1195223

>> [Science Podcast](#)

Plastic Accumulation in the North Atlantic Subtropical Gyre

K. L. Law et al.

The amount of plastic debris in the surface waters of the western North Atlantic Ocean has plateaued over the past 22 years.

10.1126/science.1192321

A Red-Shifted Chlorophyll

M. Chen et al.

A natural chlorophyll is found to absorb further in the infrared than other light-harvesting chromophores in its class.

10.1126/science.1191127

A *Vibrio* Effector Protein Is an Inositol Phosphatase and Disrupts Host Cell Membrane Integrity

C. A. Broberg et al.

Altering the homeostasis of membrane-bound signaling molecules allows a bacterial pathogen to corrupt cell function.

10.1126/science.1192850

A Unifying Genetic Model for Facioscapulohumeral Muscular Dystrophy

R. J. L. F. Lemmers et al.

Sequence variants shared by patients with a genetically complex form of muscular dystrophy explain how the disease arises.

10.1126/science.1189044

TECHNICALCOMMENTS

Comment on "The Silicate-Mediated Formose Reaction: Bottom-Up Synthesis of Sugar Silicates"

H.-J. Kim and S. A. Benner

Full text at www.sciencemag.org/cgi/content/full/329/5994/902-a

Response to Comment on "The Silicate-Mediated Formose Reaction: Bottom-Up Synthesis of Sugar Silicates"

J. B. Lambert et al.

Full text at www.sciencemag.org/cgi/content/full/329/5994/902-b

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New research questions the link between mammoth eruptions and mass extinctions.

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RESEARCH ARTICLE: TPL-2—Mediated Activation of MAPK Downstream of TLR4 Signaling Is Coupled to Arginine Availability
V. Mieulet et al.

RESEARCH ARTICLE: Arginine Usage in Mycobacteria-Infected Macrophages Depends on Autocrine-Paracrine Cytokine Signaling
J. E. Qualls et al.

PERSPECTIVE: Arginine—Master and Commander in Innate Immune Responses
S. M. Morris Jr.

In addition to acting as an enzyme substrate, arginine functions as a regulatory molecule in immune cells.

REVIEW: Phosphoinositide 3-Kinase Signaling in Thymocytes—The Need for Stringent Control
E. Fayard et al.

PI3K signaling is important in the development of normal and malignant thymocytes.

GLOSSARY

Find out what AER, AGC, and COS mean in the world of cell signaling.

SCIENCE CAREERS

www.sciencereers.org/career_magazine
Free Career Resources for Scientists

Tooling Up: A Job-Search Plan for the Person Without One (Part One)

D. Jensen

A fruitful job search takes preparation, careful consideration, and networking.

A Cosmologist Resists Academia's Work-Life Norms

S. Reed

Sarah Bridle has carved out a successful career while resisting long hours and personal sacrifices.

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COMMENTARY: 360 Degrees of Human Subjects Protections in Community-Engaged Research

L. F. Ross

When communities are both participants and partners in research, effective human subjects protections must address both individual and group risks.

RESEARCH ARTICLE: The Four-Herb Chinese Medicine PHY906 Reduces Chemotherapy-Induced Gastrointestinal Toxicity

W. Lam et al.

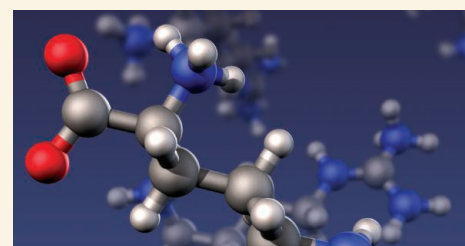
PERSPECTIVE: Are Herbal Medicines Ripe for the Cancer Clinic?

C. Eng

PODCAST

Y.-C. Cheng and A. M. VanHook

A traditional Chinese medicine reduces the intestinal toxicity of chemotherapy by inhibiting inflammation and promoting cell proliferation.



SCIENCE SIGNALING

Arginine in the immune system.

RESEARCH ARTICLE: Multivalent Integrin-Specific Ligands Enhance Tissue Healing and Biomaterial Integration

T. A. Petrie et al.

Titanium implants coated with nanoclustered integrin are tightly integrated into bone for orthopedic applications.

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