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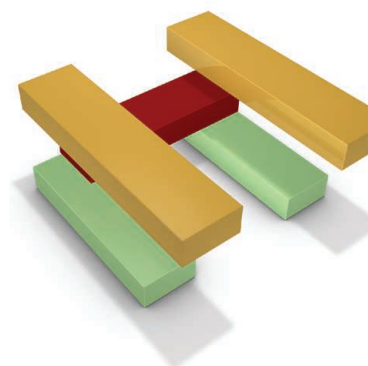
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- 1395 Displacement Above the Hypocenter of the 2011 Tohoku-Oki Earthquake
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COVER

Devastation in Rikuzentakada, Miyagi Prefecture, Japan, following the 11 March 2011 magnitude 9.0 Tohoku-Oki earthquake, which triggered a tsunami that killed more than 20,000 people and a nuclear disaster at the Fukushima Daiichi power plant. Three research papers (pp. 1395, 1421, and 1426) describe the mechanics of the earthquake, determined from seismological and geodetic observations.

Photo: Mainichi Newspaper/AFLO/Newscom

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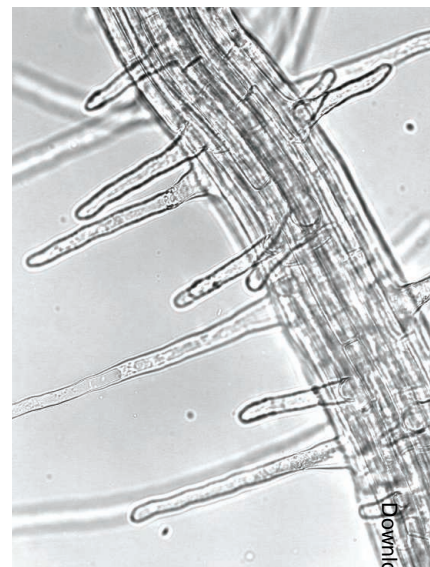
- 1396 **EPOXI at Comet Hartley 2**
M. F. A'Hearn et al.
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- 1401 **O-Glycosylated Cell Wall Proteins Are Essential in Root Hair Growth**
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- 1410 **Direct Observation of Nodes and Twofold Symmetry in FeSe Superconductor**
C.-L. Song et al.
Scanning tunneling spectroscopy suggests an orbital ordering mechanism for electron pairing in an iron-based superconductor.
- 1413 **Thermal Structure and Dynamics of Saturn's Northern Springtime Disturbance**
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Satellite and ground-based observations characterize a massive storm on Saturn and its effects on the atmosphere.
- 1417 **The 2010 M_w 8.8 Maule Megathrust Earthquake of Central Chile, Monitored by GPS**
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- 1433 **AMPK Is a Direct Adenylate Charge-Regulated Protein Kinase**
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A Possible Relativistic Jetted Outburst from a Massive Black Hole Fed by a Tidally Disrupted Star

J. S. Bloom et al.

10.1126/science.1207150

An Extremely Luminous Panchromatic Outburst from the Nucleus of a Distant Galaxy

A. J. Levan et al.

A recent bright emission observed by the Swift satellite is due to the sudden accretion of a star onto a massive black hole.

10.1126/science.1207143

Adipose Triglyceride Lipase Contributes to Cancer-Associated Cachexia

S. K. Das et al.

A bacterial pathogen reverses the modification of a host cell protein involved in membrane trafficking.

10.1126/science.1198973

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De-AMPylation of the Small GTPase Rab1 by the Pathogen *Legionella pneumophila*

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A bacterial pathogen reverses the modification of a host cell protein involved in membrane trafficking.

10.1126/science.1207193

Terraces in Phylogenetic Tree Space

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Analysis of terraces in phylogenetic space can inform on phylogenetic relationships with greater computational efficiency.

10.1126/science.1206357

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An advance bodes well for light-based medicine.

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A new study correlates activity in teenagers' neural reward circuitry with song sales 3 years later.

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14 June issue: <http://scim.ag/ss061411>

RESEARCH ARTICLE: Structure of a Pentavalent G-Actin•MRTF-A Complex Reveals How G-Actin Controls Nucleocytoplasmic Shuttling of a Transcriptional Coactivator

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Binding of multimeric actin inhibits a transcriptional coactivator by promoting nuclear export and blocking nuclear import.

RESEARCH ARTICLE: TRPS1 Targeting by miR-221/222 Promotes the Epithelial-to-Mesenchymal Transition in Breast Cancer

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PERSPECTIVE: IKKε—A Kinase at the Intersection of Signaling and Membrane Traffic

G. W. Gould

IKKε-mediated phosphorylation events may redirect endosomal traffic by switching the motor proteins associated with vesicles.

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Integrating Medicine and Science

15 June issue: <http://scim.ag/stm061511>

PERSPECTIVE: Breaking Free of Sample Size Dogma to Perform Innovative Translational Research

P. Bacchetti et al.

Abandoning false beliefs about sample size planning would facilitate funding and conduct of innovative clinical research with small sample sizes.

REPORT: Whole-Genome Sequencing for Optimized Patient Management

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PERSPECTIVE: Deep Sequencing of Patient Genomes for Disease Diagnosis—When Will It Become Routine?

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Whole-genome sequencing enabled tailoring of drug therapy for fraternal twins with a movement disorder.

RESEARCH ARTICLE: Inhibition of Transplantation Tolerance by Immune Senescence Is Reversed by Endocrine Modulation

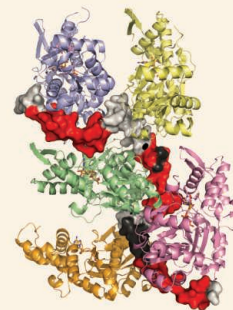
G. Zhao et al.

Immune senescence causes resistance to transplantation tolerance that can be functionally restored by targeting sex steroid production.

RESEARCH ARTICLE: The Role of Dimethylarginine Dimethylaminohydrolase in Idiopathic Pulmonary Fibrosis

S. S. Pullamsetti et al.

Inhibition of a methylarginine-degrading enzyme attenuates build-up of excess cells and collagen in pulmonary fibrosis.



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E. Pain

Conveying complex material during a scientific presentation is especially challenging for speakers not fluent in the conference language.

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D. Jensen

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