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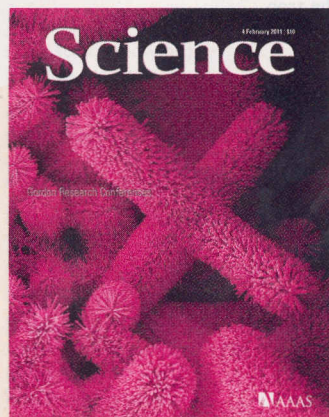
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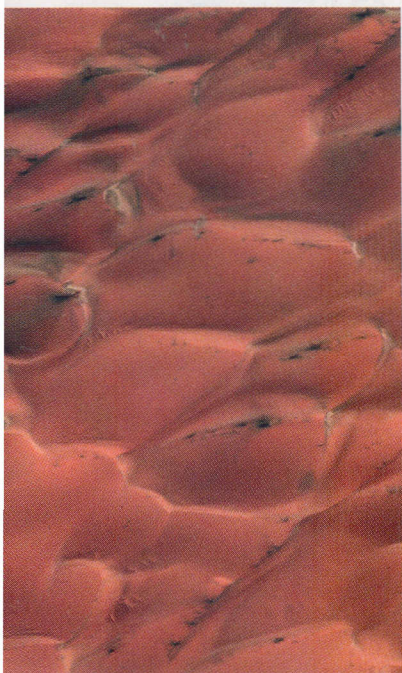
COVER

False-colored scanning electron micrograph of aligned zinc oxide nanowire arrays. Nanowires, each 10 to 50 nanometers in diameter and 0.5 to 1 micrometers long, have a variety of potential applications from medical diagnostics to miniature electronics. The Gordon Research Conference on Cancer Nanotechnology will be held 17 to 22 July 2011 at Colby College in Waterville, Maine. See page 602 for the conference schedule and preliminary programs.

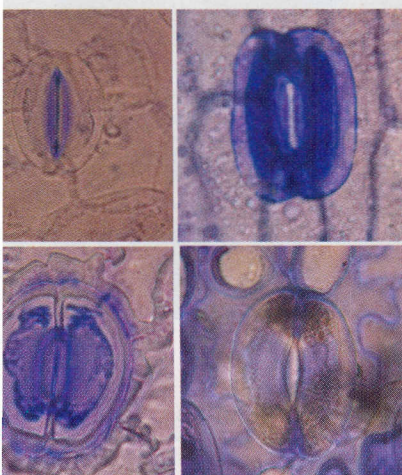
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Suppression of Collisional Shifts in a Strongly Interacting Lattice Clock

M. D. Swallows et al.

Increasing atomic interactions improved the accuracy and precision of a clock formed from atoms trapped in an optical lattice.

10.1126/science.1196442

The Formation and Fragmentation of Disks Around Primordial Protostars

P. C. Clark et al.

Numerical simulations show that disks around the first stars in the universe were gravitationally unstable and fragmented.

10.1126/science.1198027

Vibrationally Quantum-State-Specific Reaction Dynamics of H Atom Abstraction by CN Radical in Solution

S. J. Greaves et al.

Molecular vibrations in a solution-phase reaction are detected at a level of detail rivaling that of gas-phase studies.

10.1126/science.1197796

Cascading Effects of Bird Functional Extinction Reduce Pollination and Plant Density

S. H. Anderson et al.

Loss of pollinator services is reducing the population density of a New Zealand shrub.

10.1126/science.1199092

A Sorting Platform Determines the Order of Protein Secretion in Bacterial Type III Systems

M. Lara-Tejero et al.

The bacterial enteropathogen *Salmonella* sorts its effector protein substrates prior to secretion.

10.1126/science.1201476

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Highlights From Our Daily News Coverage

An Army of Ant Genomes

Newly revealed DNA from four species may help control pests.

<http://scim.ag/ant-genome>

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Timing Olympic athletes' embraces sheds light on how we perceive the present.

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A new fossil helps explain how sauropod dinosaurs got so big.

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1 February issue: <http://scim.ag/ss020111>

RESEARCH ARTICLE: Wnt Signaling Regulates Hepatic Metabolism

H. Liu et al.

Nutrient deprivation triggers β -catenin-dependent expression of genes encoding gluconeogenic enzymes.

RESEARCH ARTICLE: Mitochondrial Membrane Potential Is Required for MAVS-Mediated Antiviral Signaling

T. Koshiba et al.

The contribution of mitochondria to antiviral immune responses extends beyond their role as a platform for antiviral signaling molecules.

PERSPECTIVE: To Be or Not to Be a T_{reg} Cell—Lineage Decisions Controlled by Epigenetic Mechanisms

A. Toker and J. Huehn

Differentiation of natural regulatory T cells is restricted by the SUMO ligase PIAS1.

NETWATCH: ModuLand

Identify overlapping modules within networks with a set of Linux-based programs; in Modeling Tools.

NETWATCH: Hierarchical Network Organisation (HiNO)

Visualize network hierarchies with this online data analysis tool; in Modeling Tools.

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Integrating Medicine and Science

2 February issue: <http://scim.ag/stm020211>

RESEARCH ARTICLE: Human CD3 Transgenic Mice—Preclinical Testing of Antibodies Promoting Immune Tolerance

C. Kuhn et al.

PERSPECTIVE: Humanizing Animal Models—A Key to Autoimmune Diabetes Treatment

D. Bresson and M. von Herrath

A new humanized mouse model can be used to predict the clinical behavior of therapeutic antibodies for the treatment of Type 1 diabetes.

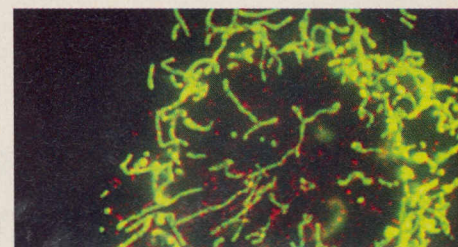
RESEARCH ARTICLE: Readily Available Tissue-Engineered Vascular Grafts

S. L. M. Dahl et al.

PODCAST

S. L. M. Dahl and O. M. Smith

Nonimmunogenic, tissue-engineered vascular grafts stored long-term maintain their patency, strength, and function after transplant in large-animal models.



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Mitochondria and antiviral signaling.

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B. L. Benderly

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K. Weston

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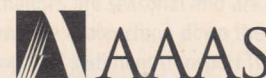
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