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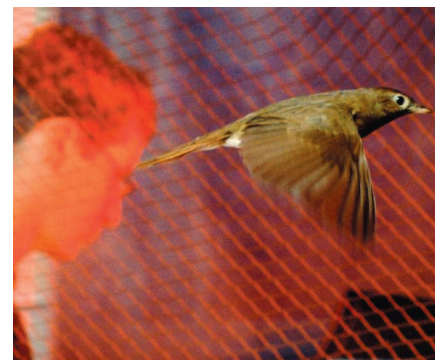
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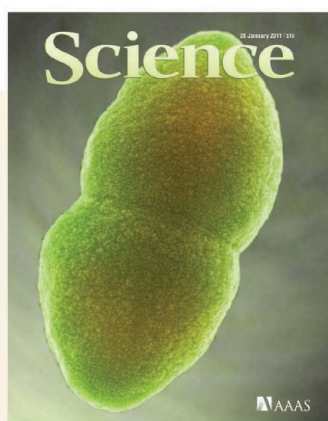


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COVER

False-colored scanning electron micrograph of the bacterial pathogen *Streptococcus pneumoniae* (typical length, ~1 micrometer), a major cause of pneumonia and meningitis. On page 430, Croucher *et al.* describe the use of whole-genome sequencing to track the global spread of a rapidly recombining *S. pneumoniae* lineage as it adapts to antibiotic use and vaccine introduction.

Image: Dennis Kunkel Microscopy, Inc./Visuals Unlimited, Inc.

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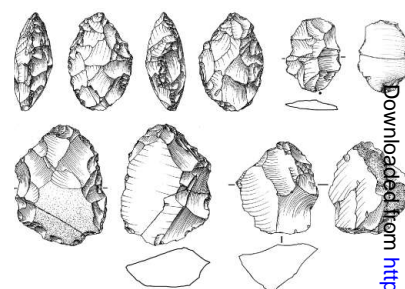
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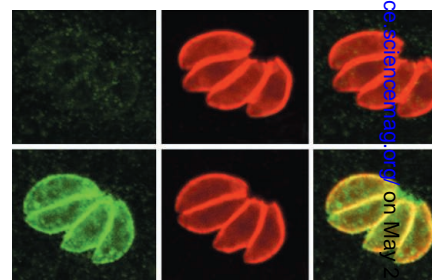
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F. Hellal et al.

Taxol stimulates the capacity of axons to grow after spinal cord injury.
10.1126/science.1201148

Structures of SAS-6 Suggest Its Organization in Centrioles

M. van Breugel et al.

Self-assembly of a centriolar protein may contribute to organizing the cartwheel-like hub and establishing centriole symmetry.
10.1126/science.1199325

The Magnitude and Duration of Late Ordovician–Early Silurian Glaciation

S. Finnegan et al.

Carbonate isotopes reveal a link between past ocean temperatures and mass extinction.
10.1126/science.1200803

Linking Policy on Climate and Food

H. C. J. Godfray et al.

10.1126/science.1202899

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New study argues that composer suffered from a type of epilepsy.

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The World's Smallest Farmers

Single-celled amoebas plant bacteria for food.

<http://scim.ag/tiny-farmers>

When Trees Attack, Fungus Can Parry

Genetic analysis reveals why the pine beetle has ravaged so many trees.

<http://scim.ag/Grosmannia>

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25 January issue: <http://scim.ag/ss012511>

RESEARCH ARTICLE: Genome-Wide RNAi Screen Reveals Disease-Associated Genes That Are Common to Hedgehog and Wnt Signaling

L. S. Jacob et al.

Loss of the kinase and tumor suppressor Stk11 (Lkb1) has opposite effects on Hh and Wnt signaling.

RESEARCH ARTICLE: V₂ Receptor–Mediated Autocrine Role of Somatodendritic Release of AVP in Rat Vasopressin Neurons Under Hypo-Osmotic Conditions

K. Sato et al.

The antidiuretic hormone arginine vasopressin (AVP) is also an autocrine signal that functions in cell volume regulation.

RESEARCH ARTICLE: Rho and Rho-Kinase Activity in Adipocytes Contributes to a Vicious Cycle in Obesity That May Involve Mechanical Stretch

Y. Hara et al.

Mechanical stretch activates Rho-kinase in adipocytes, promoting obesity and obesity-related complications.

PODCAST

Researchers discuss how mechanical stretch regulates signaling in adipocytes and in hypothalamic neurons.

MEETING REPORT: Dependence Receptors—From Basic Research to Drug Development

P. Mehlen and D. E. Bredesen

PERSPECTIVE: Control of DNMT1 Abundance in Epigenetic Inheritance by Acetylation, Ubiquitylation, and the Histone Code

C. Bronner

JOURNAL CLUB: The Role of L(u)ck in T Cell Triggering

R. Berry

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V. Raper

Can pretenured scientists blog about science without damaging their careers?

<http://scim.ag/dFDgml>

A Loyal Fan of Women's Health Research

K. Hede

Physician-scientist Rebecca Jackson's enthusiasm for research is matched only by her passion for Ohio State football.

<http://scim.ag/hPH8Nj>

Experimental Error: Lies, Damned Lies, and Seminars

A. Ruben

For all the naive and gullible graduate students out there, here is a handy guide to what those speakers are really saying.

<http://scim.ag/ezFYgK>

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Integrating Medicine and Science

26 January issue: <http://scim.ag/stm012611>

COMMENTARY: Between Confidentiality and Scientific Exchange—The Place of Publication in Drug Discovery and Pharmaceutical Research

M. Clozel

A combined preclinical and clinical publication might be the ideal approach in translational medicine.

RESEARCH ARTICLE: Uroporphyrinogen Decarboxylase Is a Radiosensitizing Target for Head and Neck Cancer

E. Ito et al.

Uroporphyrinogen decarboxylase inhibition sensitizes head and neck cancer to both radiotherapy and chemotherapy.

RESEARCH ARTICLE: Manipulating the Bioenergetics of Alloreactive T Cells Causes Their Selective Apoptosis and Arrests Graft-Versus-Host Disease

E. Gatzka et al.

Bioenergetic properties differentiate alloreactive T cells from other proliferating cells and can be exploited to arrest GVHD in mice.

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