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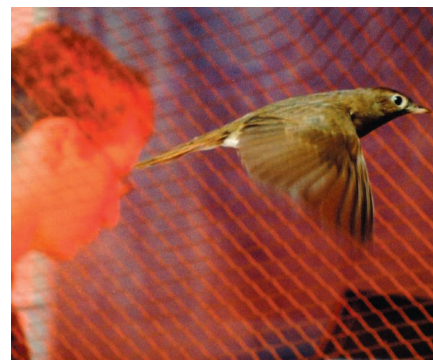
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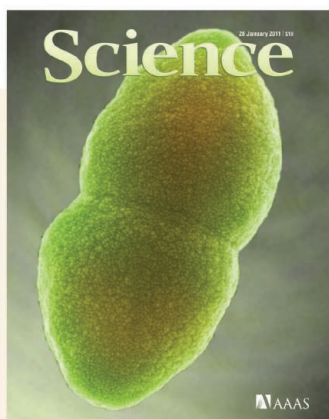


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## COVER

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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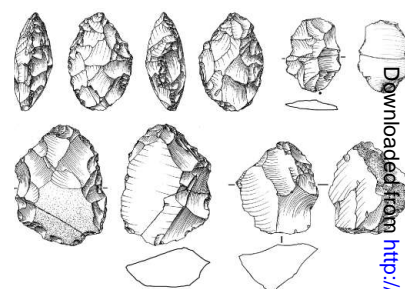
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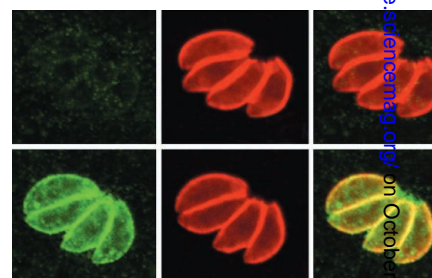
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## SCIENCEEXPRESS

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### Microtubule Stabilization Reduces Scarring and Causes Axon Regeneration After Spinal Cord Injury

*F. Hellal et al.*

Taxol stimulates the capacity of axons to grow after spinal cord injury.  
[10.1126/science.1201148](http://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](http://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](http://10.1126/science.1200803)

### Linking Policy on Climate and Food

*H. C. J. Godfray et al.*

[10.1126/science.1202899](http://10.1126/science.1202899)

## SCIENCE NOW

[www.sciencenow.org](http://www.sciencenow.org)

Highlights From Our Daily News Coverage

### Frédéric Chopin's 'Madness' Diagnosed

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

<http://scim.ag/mad-chopin>

### 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>

## SCIENCE SIGNALING

[www.sciencesignaling.org](http://www.sciencesignaling.org)

The Signal Transduction Knowledge Environment

**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: V<sub>2</sub> 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*

## SCIENCE CAREERS

[www.sciencereers.org/career\\_magazine](http://www.sciencereers.org/career_magazine)

Free Career Resources for Scientists

### Science Blogging and Tenure

*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>

## SCIENCE TRANSLATIONAL MEDICINE

[www.sciencetranslationalmedicine.org](http://www.sciencetranslationalmedicine.org)

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.

## SCIENCE PODCAST

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Science Policy News and Analysis

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