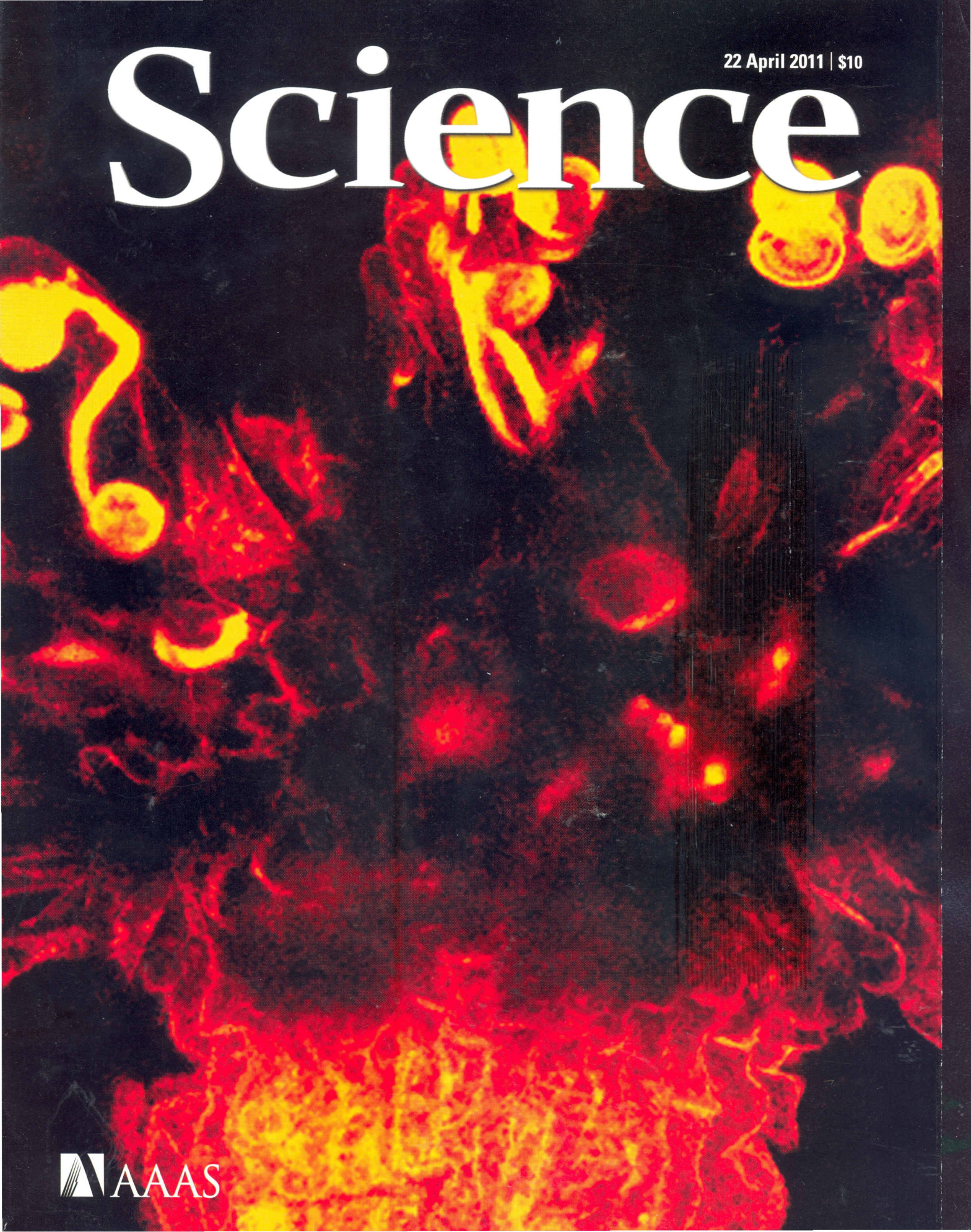




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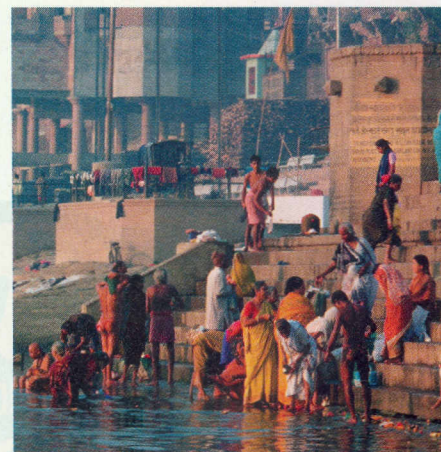
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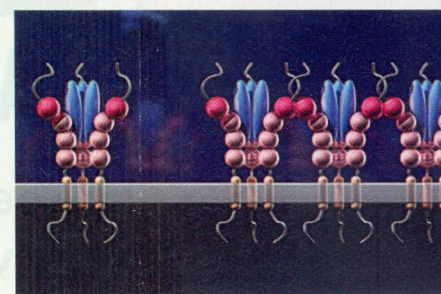
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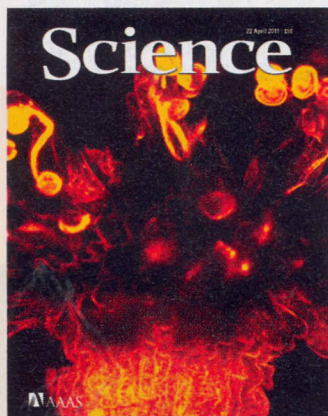
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COVER

False-colored two-photon microscopy image showing green fluorescent protein-labeled pollen on the stigma (the top of the pistil) of *Arabidopsis thaliana*. On page 434, Michard *et al.* describe a plant signaling mechanism that directs the growth of pollen tubes, which carry sperm cells to the ovule at the base of the pistil, and that is analogous to amino acid-mediated communication commonly observed in animal nervous systems.

Image: L. Boavida and J. A. Feijó, Instituto Gulbenkian de Ciencia and Universidade de Lisboa, Portugal

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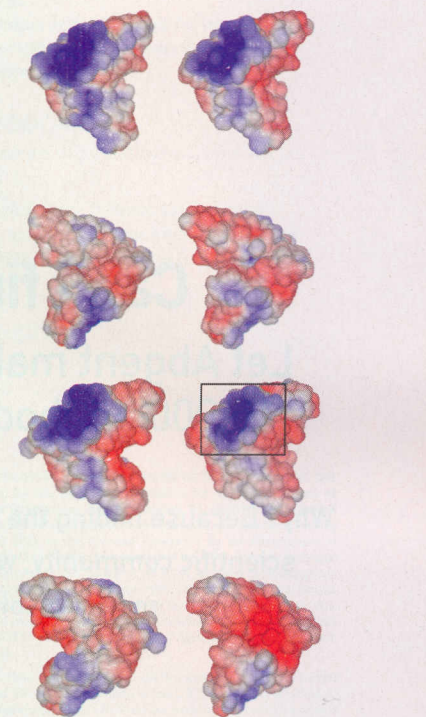
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Massive CO₂ Ice Deposits Sequestered in the South Polar Layered Deposits of Mars

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Radar measurements reveal a substantial buried deposit of CO₂ in the south pole of Mars.

10.1126/science.1203091

>> [Science Podcast](#)

Cold-Trapping Mars' Atmosphere

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Comparative Functional Genomics of the Fission Yeasts

N. Rhind et al.

A combined analysis of genome sequence, structure, and expression gives insights into fission yeast biology.

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10.1126/science.1206095

Spatial Coupling of mTOR and Autophagy Augments Secretory Phenotypes

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A cellular compartment allows simultaneous protein synthesis and degradation.

10.1126/science.1205407

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Analyses find that off-label use of rFVIIa may hurt patients.

<http://scim.ag/clotting-drug>

Mass Killings of Gazelles Marked Rise of Human Civilization

Scientists find evidence that animals were slaughtered in long stone traps.

<http://scim.ag/mass-killing>

How Much Did the Dodo Really Weigh?

Researchers engage in a battle of the bulge over the long-extinct bird.

<http://scim.ag/dodo-weight>

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The Signal Transduction Knowledge Environment

19 April issue: <http://scim.ag/ss041911>

RESEARCH ARTICLE: Inhibitory ITAM Signaling Traps Activating Receptors with the Phosphatase SHP-1 to Form Polarized "Inhibisome" Clusters
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PERSPECTIVE: How ITAMs Inhibit Signaling

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RESEARCH ARTICLE: ERKs Induce Expression of the Transcriptional Repressor Blimp-1 and Subsequent Plasma Cell Differentiation
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D. M. Allman and M. P. Cancro

The differentiation of B cells into antibody-producing plasma cells requires extracellular signal-regulated kinases.

NETWATCH: PTMScout

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NETWATCH: The Virtual Cell

Build models and run simulations of cell biological processes; in Modeling Tools.

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Experimental Error: Forging a Head

A. Ruben

Scientific hoaxes can be fun (when they are harmless) while also serving a serious function: exposing failures of scientists' most important tool, their skepticism.

<http://scim.ag/forgingahead>

Finding a Niche in Food and Health Research

R. Berkowitz

Three researchers on food and health describe how they developed careers in the field.

<http://scim.ag/foodandhealthcareers>

SCIENCE TRANSLATIONAL MEDICINE

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Integrating Medicine and Science

20 April issue: <http://scim.ag/stm042011>

EDITORIAL: Gene Therapy for Parkinson's Disease Shows Promise

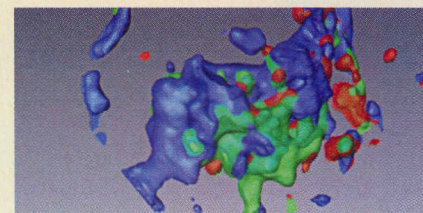
A. Björklund and T. Björklund

A gene therapy trial for Parkinson's disease met its primary endpoint, but challenges remain.

PERSPECTIVE: HIV-1 Vaccines and Adaptive Trial Designs

L. Corey et al.

Development of an HIV vaccine could be accelerated by testing candidate vaccines using adaptive clinical trial designs.



SCIENCE SIGNALING

Sequestered in an inhibisome.

PERSPECTIVE: Biomarkers for Parkinson's Disease
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Identifying much-needed biomarkers for detecting early Parkinson's disease will accelerate drug development.

REPORT: Electronic Medical Records for Genetic Research—Results of the eMERGE Consortium
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RESEARCH ARTICLE: The Fate and Toxicity of Raman-Active Silica-Gold Nanoparticles in Mice
A. S. Thakor et al.

Gold-core nanoparticles designed for imaging by Raman spectroscopy in patients are generally nontoxic in mice.

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