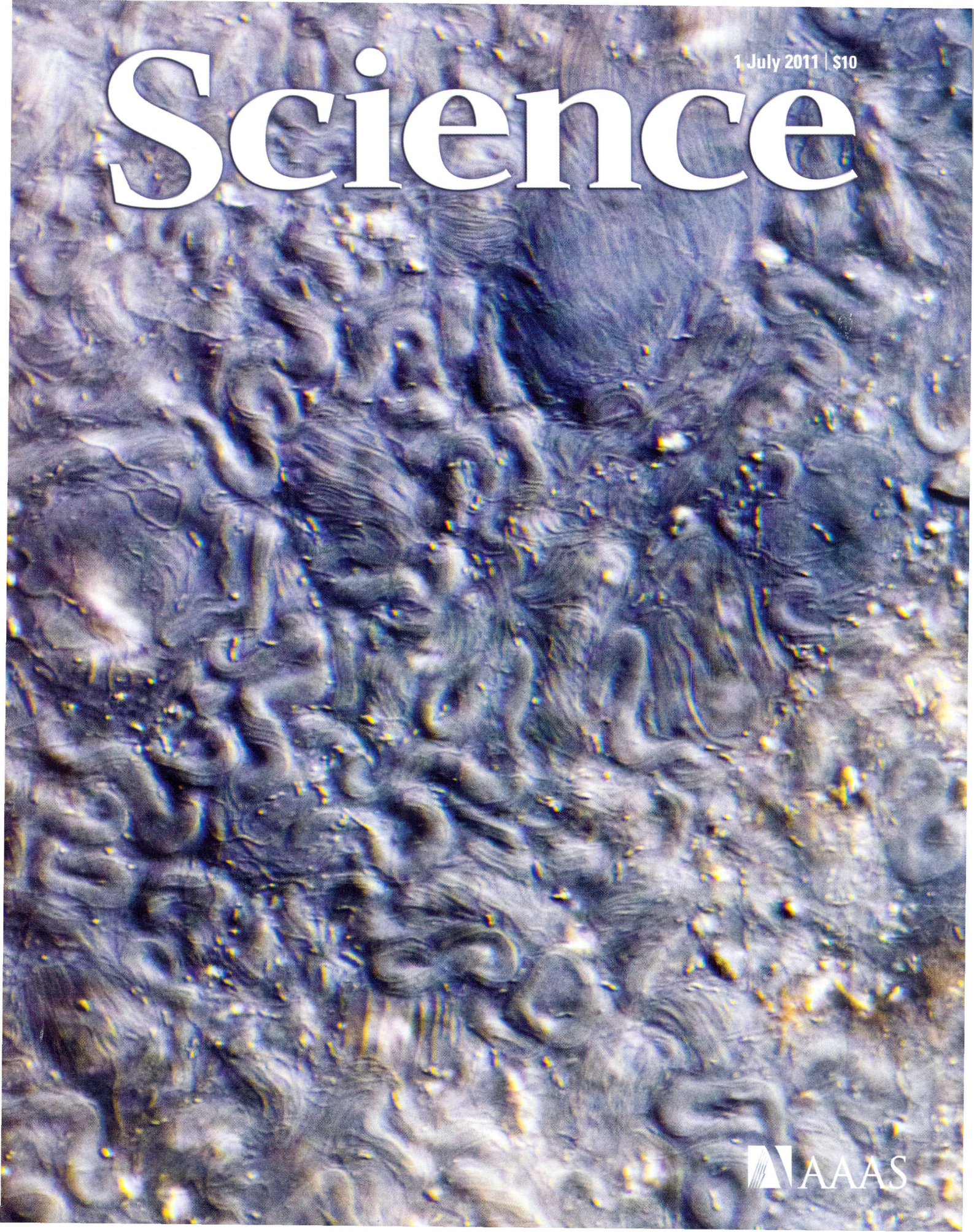




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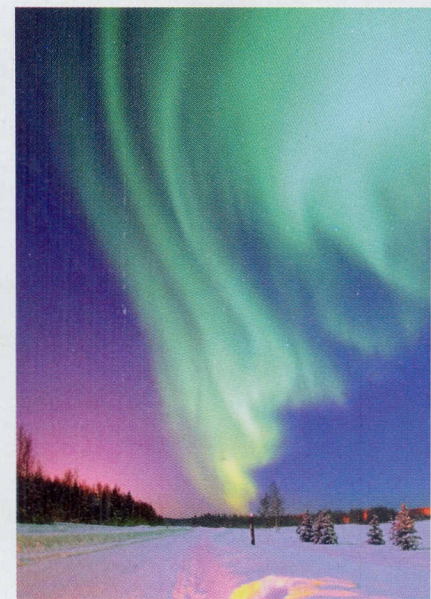
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functional screw-and-nut system.

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COVER

Differential interference contrast microscopy image showing the gut microbial community of the termite *Reticulitermes tibialis*. Coursing among larger protozoa (ranging in size from 10 to 60 micrometers) are thin, wavy bacteria known as spirochetes, as well as viruses not visible at this magnification. Using a microfluidic digital polymerase chain reaction approach, Tadmor et al. examine the interactions between uncultured bacteria and their associated viruses in the termite hindgut. See page 58.

Image: Jared R. Leadbetter, California Institute of Technology

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- 87 A Key Enzyme in the Biogenesis of Lysosomes Is a Protease That Regulates Cholesterol Metabolism

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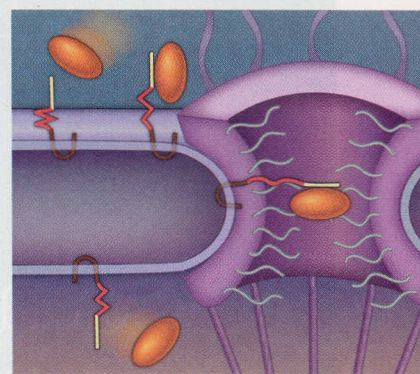
- 108 Following the Crowd: Brain Substrates of Long-Term Memory Conformity

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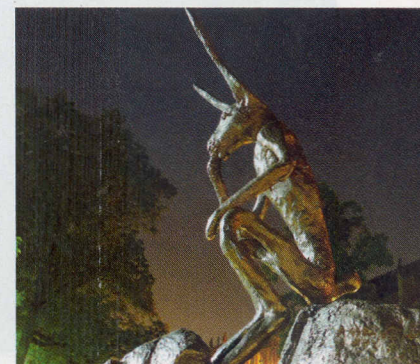
Firmly held memory representations in the brain can be altered by social influence.

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SCIENCEONLINE

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Isolation of Succinivibrionaceae Implicated in Low Methane Emissions from Tammar Wallabies
P. B. Pope et al.

Metagenome sequence predicted the culture conditions required for successful isolation of a marsupial gut bacterium.
10.1126/science.1205760

Structural Basis for Tail-Anchored Membrane Protein Biogenesis by the Get3-Receptor Complex
S. Stefer et al.

Docking of cytoplasmic and membrane receptors facilitates conformational changes that drive protein insertion.
10.1126/science.1207125

Altered Telomeres in Tumors with *ATRX* and *DAXX* Mutations
C. M. Heaphy et al.

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10.1126/science.1207313

Trace Metals as Biomarkers for Eumelanin Pigment in the Fossil Record
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X-ray maps of fossil feather pigments reveal color patterning in extinct bird species.
10.1126/science.1205748

Friction Anisotropy-Driven Domain Imaging on Exfoliated Monolayer Graphene
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Otherwise identical regions of supported graphene can be distinguished by changes in friction with sliding direction.
10.1126/science.1207110

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Comment on "The Mechanism for Activation of GTP Hydrolysis on the Ribosome"
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Full text at www.sciencemag.org/cgi/content/full/333/6038/37-a

Response to Comment on "The Mechanism for Activation of GTP Hydrolysis on the Ribosome"
R. M. Voorhees et al.

Full text at www.sciencemag.org/cgi/content/full/333/6038/37-b

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Highlights From Our Daily News Coverage

For Conservationists, the (Tasmanian) Devil Is in the Details

The newly sequenced genome of the endangered marsupial could help future generations fight off devastating facial tumor disease.
<http://scim.ag/taz-cancer>

LSD Alleviates 'Suicide Headaches'

Patients taking an analog of a psychedelic drug report fewer and less intense cluster headaches.
<http://scim.ag/lsd-headache>

When the Snake Bites ... Try Ointment

A salve that contains nitroglycerin might delay movement of snake venom.
http://scim.ag/snake_bite

SCIENCE SIGNALING

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The Signal Transduction Knowledge Environment
28 June issue: <http://scim.ag/ss062811>

EDITORIAL GUIDE: Focus Issue—Choreographing the Dance of the Mitotic Kinases

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Research into the phosphoproteome targeted by mitotic kinases reveals insight into the coordination of the activity of these kinases during cell division.

RESEARCH ARTICLE: Spatial Exclusivity Combined with Positive and Negative Selection of Phosphorylation Motifs Is the Basis for Context-Dependent Mitotic Signaling
J. Alexander et al.

RESEARCH RESOURCE: Quantitative Phosphoproteomics Identifies Substrates and Functional Modules of Aurora and Polo-Like Kinase Activities in Mitotic Cells
A. N. Kettenbach et al.

PERSPECTIVE: Substrates of Mitotic Kinases
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New research provides insight into how substrate selectivity of the multiple kinases that control mitosis is achieved.

RESEARCH RESOURCE: Mitotic Substrates of the Kinase Aurora with Roles in Chromatin Regulation Identified Through Quantitative Phosphoproteomics of Fission Yeast
A. Koch et al.

The kinase Aurora influences multiple aspects of chromatin architecture and function during mitosis.

PODCAST

S. Hauf et al.

Two studies shed light on cell cycle-dependent protein phosphorylation during mitosis in yeast.

SCIENCE TRANSLATIONAL MEDICINE

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29 June issue: <http://scim.ag/stm062911>

COMMENTARY: The Fiber of Modern Society
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COMMENTARY: Repaving the Road to Biomedical Innovation Through Academia
A. R. Marks

COMMENTARY: How to Revive Breakthrough Innovation in the Pharmaceutical Industry
B. H. Munos and W. W. Chin

In a series of articles, diverse experts engage in a critical dialogue on how to spur innovation.

RESEARCH ARTICLE: Human apoE Isoforms Differentially Regulate Brain Amyloid- β Peptide Clearance
J. M. Castellano et al.

Human apoE4 increases the concentration of soluble amyloid- β in the brain by impairing its clearance.

RESEARCH ARTICLE: Rapamycin Reverses Cellular Phenotypes and Enhances Mutant Protein Clearance in Hutchinson-Gilford Progeria Syndrome Cells

K. Cao et al.

Shown previously to extend longevity in animals, the drug rapamycin might serve as a treatment for a human premature aging syndrome.

SCIENCE CAREERS

www.sciencereers.org/career_magazine

Free Career Resources for Scientists

How to Avoid Retirement

L. Laursen

From changing roles to changing institutions, researchers approaching retirement age are finding ways to prolong their scientific careers.
http://scim.ag/avoiding_retirement

Taken for Granted: Creating Opportunities
B. L. Benderly

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http://scim.ag/TFG_Opportunities

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