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COVER

Pseudocolored scanning electron micrograph (magnification ~34,000x) of the surface of mouse airway epithelia showing cilia protruding from epithelial cells; short protrusions in the foreground are microvilli from a nonciliated cell. In human airway epithelia, these motile cilia bear receptors that detect bitter compounds and signal the cilia to increase their rhythmic beat frequency to help clear noxious substances from the lungs. See page 1131.

Image: Tom Moninger (epithelia generated by Phil Karp)

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1095 On the Origin and Spread of an Adaptive Allele in Deer Mice

C. R. Linnen et al.

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1099 Spectroscopic Fingerprint of Phase-Incoherent Superconductivity in the Underdoped $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$

J. Lee et al.

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Derivatization of atomic force microscope tips with carbon monoxide molecules allows atoms to be resolved within adsorbed molecules.

1114 Amplifying the Pacific Climate System Response to a Small 11-Year Solar Cycle Forcing

G. A. Meehl

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1118 Good Genes and Good Luck: Ammonoid Diversity and the End-Permian Mass Extinction

A. Brayard et al.

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M. O. A. Sommer et al.

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Analysis of a yeast mitochondrial protein reveals a human tumor susceptibility gene.

1142 Eos Mediates Foxp3-Dependent Gene Silencing in CD4⁺ Regulatory T Cells

F. Pan et al.

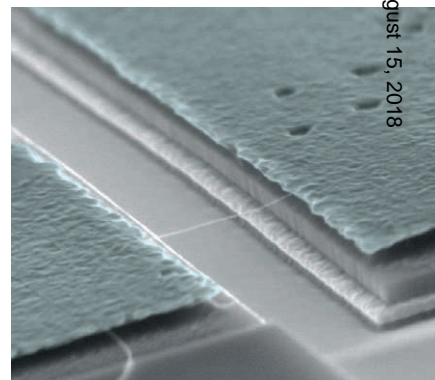
A transcription factor required for gene suppression in regulatory T cells is identified.



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SCIENCEEXPRESS

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Starvation Protects Germline Stem Cells and Extends Reproductive Longevity in *C. elegans*

G. Angelo and M. R. Van Gilst

During starvation, germline stem cells are saved for regeneration when food is restored.

10.1126/science.1178343

Coat Variation in the Domestic Dog Is Governed by Variants in Three Genes

E. Cadieu et al.

Huge variations in the coats of purebred dogs can be explained by the combinatorial effects of only three genes.

10.1126/science.1177808

Complete Resequencing of 40 Genomes Reveals Domestication Events and Genes in Silkworm (*Bombyx*)

Q. Xia et al.

Silkworm genomes show signatures of selection associated with domestication.

10.1126/science.1176620

>> [News story p. 1058](#)

Nitrous Oxide (N₂O): The Dominant Ozone-Depleting Substance Emitted in the 21st Century

A. R. Ravishankara et al.

Nitrous oxide causes more stratospheric ozone destruction than any other ozone-depleting substance.

10.1126/science.1176985

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Chiral Organic Ion Pair Catalysts Assembled Through a Hydrogen-Bonding Network

D. Uraguchi et al.

A small cluster of hydrogen-bonded molecules acts as a highly selective asymmetric catalyst.

10.1126/science.1176758

TECHNICALCOMMENTS

Comment on "Floral Iridescence, Produced by Diffractive Optics, Acts as a Cue for Animal Pollinators"

N. I. Morehouse and R. L. Rutowski

full text at www.sciencemag.org/cgi/content/full/325/5944/1072-e

Response to Comment on "Floral Iridescence, Produced by Diffractive Optics, Acts as a Cue for Animal Pollinators"

H. M. Whitney et al.

full text at www.sciencemag.org/cgi/content/full/325/5944/1072-e

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EDITORIAL GUIDE: Re-reviewing Peer Review

M. B. Yaffe

Constructive criticism is the key to effective peer review.

RESEARCH ARTICLE: The VDAC2-BAK Rheostat Controls Thymocyte Survival

D. Ren et al.

The relative abundance of an anion channel and a proapoptotic protein determines thymocyte responses to death signals.

PERSPECTIVE: Controlling the Number of Tooth Rows

M. L. Mikkola

Bmp4 distribution in the mouse jaw is restricted to prevent the induction of supernumerary teeth.

PERSPECTIVE: Epac2—A Molecular Target for Sulfonylurea-Induced Insulin Release

S. A. Hinke

Epac2 is an intracellular receptor for a commonly used class of antidiabetic medications.

PRESENTATION: The Mechanotransduction Machinery of Hair Cells

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Studying genes linked to deafness identifies components of the ear's mechanotransduction apparatus.

TEACHING RESOURCE: Training for Peer Review

N. R. Gough

Graduate students and postdocs may benefit from formal training in peer reviewing.

SCIENCE CAREERS

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Free Career Resources for Scientists

Dealing With Debt

K. Hede

Education debt can make it difficult for physician-scientists to stay on a research course.

Winning Strategies: Advice From the PECASE Winners

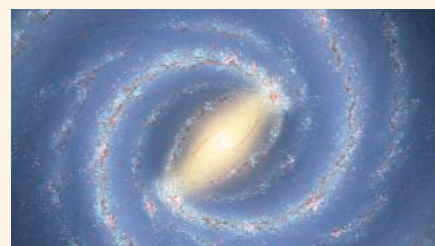
S. Gaidos

There are no recipes for scientific success, but these principles can be counted on.

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SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue, NW, Washington, DC 20005. Periodicals Mail postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 2009 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): \$146 (\$74 allocated to subscription). Domestic institutional subscription (51 issues): \$835; Foreign postage extra: Mexico, Caribbean (surface mail) \$55; other countries (air assist delivery) \$85. First class, airmail, student, and emeritus rates on request. Canadian rates with GST available upon request, GST #1254 88122. Publications Mail Agreement Number 1069624. **Printed in the U.S.A.**

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325 (5944)

Science **325** (5944), 1043-1147.

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