

EDITORIAL

- 309 **Pondering Astronomy in 2009**
Martin Rees
 >> *News Focus* section p. 326

NEWS OF THE WEEK

- 318 **Science Groups Emphasize Jobs in Push for More Research Funding**
- 319 **Export Controls: Current System Hampers U.S. Innovation, Says Panel**
- 321 **Can an Ecologist Push NOAA Up the Food Chain?**
- 322 **A Human Trigger for the Great Quake of Sichuan?**
- 323 **Waltzing Quasars Provide Signpost to Merging Galaxies**
- 323 **Do Black Holes Seed the Formation of Galaxies?**
- 324 **Infection Study Worries Farmers, Bird Lovers**
- 324 **CDC's Gerberding Makes an Early Exit**
- 325 **Tracking CO₂'s Comings and Goings From Space**

NEWS FOCUS

INTERNATIONAL YEAR OF ASTRONOMY

- 326 **Astronomy's Greatest Hits**
- 330 **A Brief History of the Telescope**
- 332 **Astronomy Hits the Big Time**
 >> *Editorial* p. 309; *Science Podcast*

LETTERS

- 337 **Grants on the Run**
S. Jeyaseelan
Fishing for More Effective Incentives
T. Smith et al.
Diverse Fisheries Require Diverse Solutions
N. C. Ban et al.
Response
J. Lynham et al.
A Question of Ethics
J. Boldt and O. Müller

Response
E. Parens et al.

339 CORRECTIONS AND CLARIFICATIONS

BOOKS ET AL.

- 340 **Insatiable Curiosity**
H. Nowotny, reviewed by E. J. Hackett
- 341 **Browsings**

POLICY FORUM

- 342 **Racing Forward: The Genomics and Personalized Medicine Act**
S. S.-J. Lee and A. Mudaliar
 >> *Science Podcast*

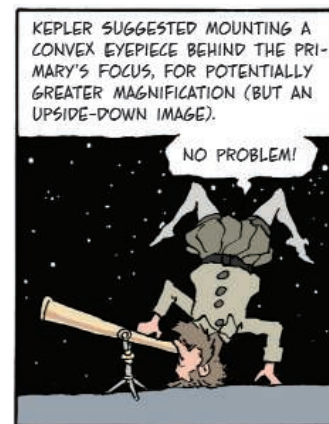
PERSPECTIVES

- 343 **Animal Function at the Heart (and Gut) of Oceanography**
B. A. Seibel and H. M. Dierssen
 >> *Report* p. 359
- 344 **Beyond Biomineralization**
W. Kunz and M. Kellermeier
 >> *Report* p. 362
- 346 **New and Ancient Trace Makers**
S. Bengtson and B. Rasmussen
- 347 **The Structure of Change**
C. A. M. Semple and M. S. Taylor
 >> *Report* p. 401
- 348 **Excitons Surf Along Conjugated Polymer Chains**
J.-L. Brédas and R. Silbey
 >> *Report* p. 369
- 350 **Origin of Species in Overdrive**
J. H. Willis
 >> *Reports* pp. 373 and 376

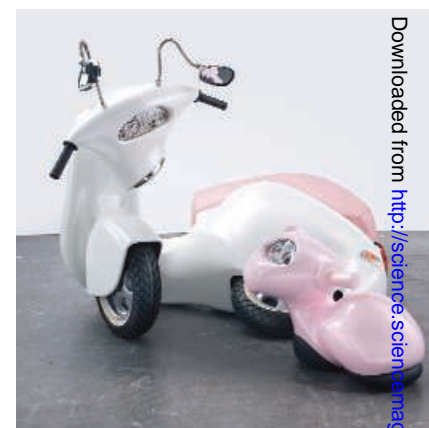
BREVIA

- 352 **Programmed Assembly of DNA-Coated Nanowire Devices**
T. J. Morrow et al.
 Electric fields help direct metal nanowires coated with different DNA sequences into specific positions on a substrate.

CONTENTS continued >>



page 326



page 340



COVER

Hot dust clouds in the center of the Milky Way, photographed by the Infrared Array Camera (IRAC) aboard the Spitzer Space Telescope. The International Year of Astronomy gets under way this week with opening ceremonies at UNESCO headquarters in Paris; *Science* marks the occasion with a special News Focus section beginning on page 326.

Image: NASA/JPL-Caltech/S. Stolovy (Spitzer Science Center/Caltech)

DEPARTMENTS

- 307 **This Week in *Science***
- 310 **Editors' Choice**
- 312 ***Science* Staff**
- 315 **Random Samples**
- 317 **Newsmakers**
- 405 **New Products**
- 406 ***Science* Careers**

REPORTS

353 Dust Formation in a Galaxy with Primitive Abundances

G. C. Sloan et al.

A carbon star lacking many heavy elements produces abundant dust, perhaps explaining the origin of dust in the early universe.

356 Early Lunar Magnetism

I. Garrick-Bethell et al.

Remnant magnetism in minerals in an unshocked Apollo sample implies that the Moon had a molten core 4.2 billion years ago.

359 Contribution of Fish to the Marine Inorganic Carbon Cycle

R. W. Wilson et al.

Fish excrete large amounts of calcium carbonate and thus influence the carbon cycle in the ocean.

>> Perspective p. 343

362 Morphogenesis of Self-Assembled Nanocrystalline Materials of Barium Carbonate and Silica

J. M. García-Ruiz et al.

The growth of inorganic crystals in a chemically coupled system produces curved morphologies like those found in biology.

>> Perspective p. 344

366 Broadband Ground-Plane Cloak

R. Liu et al.

An automated design process arranges thousands of metamaterial components to cloak an object on a metal surface.

369 Coherent Intrachain Energy Migration in a Conjugated Polymer at Room Temperature

E. Collini and G. D. Scholes

Extended conformations of polymers in solution foster rapid energy transport along individual chains, but not between chains.

>> Perspective p. 348

373 A Mouse Speciation Gene Encodes a Meiotic Histone H3 Methyltransferase

O. Mihola et al.

A gene responsible for sterility in the offspring of two mouse species, and therefore important in speciation, regulates gene expression via methylation in chromatin.

>> Perspective p. 350

376 A Single Gene Causes Both Male Sterility and Segregation Distortion in *Drosophila* Hybrids

N. Phadnis and H. A. Orr

A *Drosophila* gene that causes sterility in the offspring of two species and may be important for speciation causes increased transmission of itself to progeny.

>> Perspective p. 350

379 The Dynamics and Time Scale of Ongoing Genomic Erosion in Symbiotic Bacteria

N. A. Moran et al.

Comparisons of strains of obligate symbionts reveal stepwise evolutionary changes leading to gene inactivation and DNA loss.

382 A Polymorphism in *npr-1* Is a Behavioral Determinant of Pathogen Susceptibility in *C. elegans*

K. C. Reddy et al.

Mutations in neuropeptide receptors prevent nematode worms from swimming away to avoid bacterial pathogens.

384 The Structure of Rat Liver Vault at 3.5 Angstrom Resolution

H. Tanaka et al.

The large, ribonucleotide proteins involved in resisting infection have domains that bind to lipid-raft regions of the cell membrane.

388 Draxin, a Repulsive Guidance Protein for Spinal Cord and Forebrain Commissures

S. M. Islam et al.

A protein cue guides the formation of bundles of nerve fibers that connect the cerebral hemispheres.

393 Recombination of Retrotransposon and Exogenous RNA Virus Results in Nonretroviral cDNA Integration

M. B. Geuking et al.

With the help of an endogenous retrovirus, RNA virus sequence can be incorporated into mouse chromosomes.

396 Molecular Mechanisms of HipA-Mediated Multidrug Tolerance and Its Neutralization by HipB

M. A. Schumacher et al.

A persistence factor similar to a eukaryotic kinase regulates bacterial dormancy and contributes to antibiotic resistance in *E. coli*.

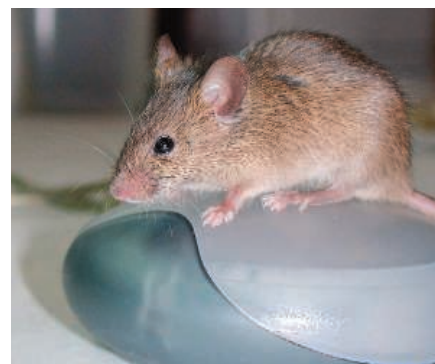
401 Chromatin-Associated Periodicity in Genetic Variation Downstream of Transcriptional Start Sites

S. Sasaki et al.

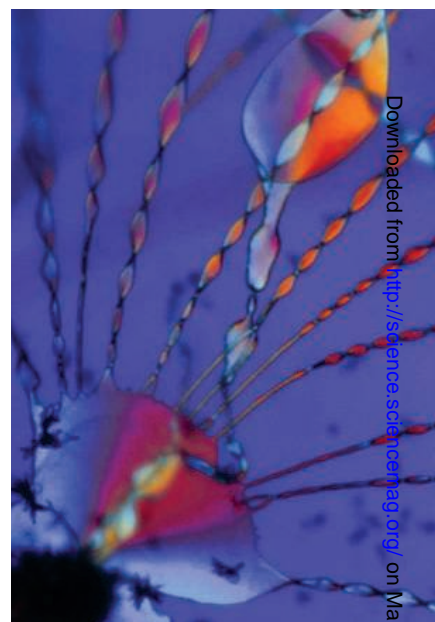
The periodic wrapping of DNA around nucleosomes in chromatin determines a periodic variation in mutation type and frequency around transcription start sites in a fish.

>> Perspective p. 347

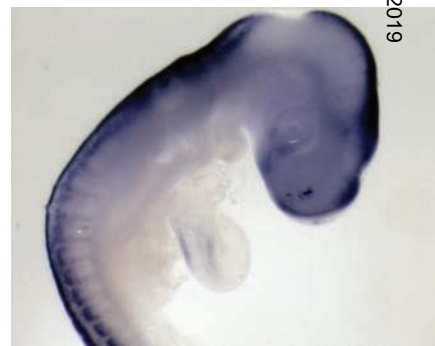
CONTENTS continued >>



pages 350, 373, & 376



pages 344 & 362



page 388

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The Formation of Massive Star Systems by Accretion

M. R. Krumholz et al.

Numerical simulations show that instabilities can channel gas into growing massive stars despite their high radiation pressure.

>> *Science Podcast*

10.1126/science.1165857

Strong Release of Methane on Mars in Northern Summer 2003

M. J. Mumma et al.

Earth-based spectrometers have detected seasonal variations of methane emissions from certain locations on Mars in 2003.

10.1126/science.1165243

Sensing Chromosome Bi-Orientation by Spatial Separation of Aurora B Kinase from Kinetochores

D. Liu et al.

The mechanism for sensing tension across chromosome pairs before mitotic separation relies on the distance between enzyme and substrate.

10.1126/science.1167000

Effects of Genetic Perturbation on Seasonal Life History Plasticity

A. M. Wilczek et al.

Interactions among mutation, germination timing, and climate alter flowering patterns in *Arabidopsis*.

10.1126/science.1165826

A Genetic Defect Caused by a Triplet Repeat Expansion in *Arabidopsis thaliana*

S. Sureshkumar et al.

A strain of *Arabidopsis* provides a plant model for the harmful effects of repeat nucleotide expansions in populations.

10.1126/science.1164014

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Human hunting alters organisms' size and breeding schedule three times faster than natural forces.

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PERSPECTIVE: Growth and Patterning in the Limb—Signaling Gradients Make the Decision

Y. Yang

Signaling gradients coordinately regulate proliferation and cell fate determination in the developing limb.

PODCAST

J. D. Scott et al.

The scaffold protein mAKAP localizes factors important for the cellular response to hypoxia.

NETWATCH: Cytoscape

Cytoscape is an expandable, open-source network analysis software platform; in *Bioinformatics Resources*.

NETWATCH: The Human Protein Atlas

An antibody-based proteomics database provides tissue-specific expression data for a growing list of human proteins; in *Protein Databases*.

NETWATCH: Science Webinar Series

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SCIENCE CAREERS

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Free Career Resources For Scientists

Tooling Up: The Job Seeker's Lexicon

D. Jensen

Job seekers need to interpret the jargon used in job ads and interviews.

Astronomer Finds Rewards in Outreach

L. Laursen

Cameron Hummels is a student ambassador representing NASA during the International Year of Astronomy.

>> *Editorial p. 309*

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