

EDITORIAL

- 443 Thriving on Common Ground
Bruce Alberts
>> *News Focus* section p. 456;
Policy Forum p. 472

NEWS OF THE WEEK

- 448 A roundup of the week's top stories

NEWS & ANALYSIS

- 451 Prison Terms for L'Aquila Experts Shock Scientists
- 452 Questions About Japanese Researcher Go Back Years
- 455 When a Brain Scan Bears Bad News

NEWS FOCUS

- 456 2012 ELECTION
Congratulations! Now Get to Work
For Once, Science Is an Issue in Race for a Seat in Congress
Food Labeling Issue Tops State Ballot Questions
Want to Tear Down Your Rival? Here's What Might Work Best
>> *Editorial* p. 443; *Policy Forum* p. 472;
Science Podcast

LETTERS

- 467 A Curiosity Moment for Tropical Biology?
C. H. Cannon
- The Real Costs of Research
H. R. Rawlings III et al.
- Duty of Care:
Protecting Researchers Abroad
B. Pafford and R. Macpherson
- 469 CORRECTIONS AND CLARIFICATIONS
- 469 TECHNICAL COMMENT ABSTRACTS

BOOKS ET AL.

- 470 Transhumanist Dreams and Dystopian Nightmares
M. J. Mehlman, reviewed by M. A. Goldman
- 471 Darwin's Ghosts
R. Stott, reviewed by S. Firestein

POLICY FORUM

- 472 Social Media and the Elections
P. T. Metaxas and E. Mustafaraj
>> *Editorial* p. 443; *News Focus* section p. 456;
Science Podcast

PERSPECTIVES

- 474 The Risks of Overfishing
E. K. Pikitch
>> *Report* p. 517
- 475 The Mood of a Worm
S. W. Emmons
>> *Reports* pp. 540 and 543
- 476 Measuring Solar Magnetism
A. G. de Wijn
- 478 Did Australopithecids Climb Trees?
S. Larson
>> *Report* p. 514
- 479 Lending Handedness to the Cyclopentadienyl Ligand
H. Wang and F. Glorius
>> *Reports* pp. 500 and 504
- 480 Fishing for Answers off Fukushima
K. O. Buesseler
- 482 Decoding the Neuronal Tower of Babel
C. J. McBain
>> *Report* p. 536
- 483 Can Intellectual Property Save Drug Development?
G. A. FitzGerald
- SCIENCE PRIZE ESSAYS**
- 485 Student-Directed Discovery of the Plant Microbiome and Its Products
C. A. Bascom-Slack et al.
- 487 A Mutant Search—*Caenorhabditis elegans* and Gene Discovery
C. C. LaRue and P. A. Padilla

CONTENTS continued >>



page 456



page 470

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COVER

Skull and shoulders of "Selam"—a 3.3-million-year-old female child *Australopithecus afarensis* from Dikika, Ethiopia. The upside-down view reveals her palate, vertebral column, and both shoulder blades (in this orientation, the scapula on the right measures 60 millimeters across). The scapulae were recently freed from their sandstone matrix and are described in the Report on page 514. The scapulae display several apelike characteristics, implying that *A. afarensis* was still a capable climber.

Image: Zeresenay Alemseged/Dikika Research Project

DEPARTMENTS

- 439 This Week in *Science*
- 444 Editors' Choice
- 446 *Science* Staff
- 489 AAAS News & Notes
- 549 New Products
- 550 *Science* Careers

REVIEW

- 491 Glial Progenitor Cell–Based Treatment and Modeling of Neurological Disease
S. A. Goldman et al.

RESEARCH ARTICLE

- 496 Detecting Causality in Complex Ecosystems
G. Sugihara et al.
A new method, based on nonlinear state space reconstruction, can distinguish causality from correlation.

REPORTS

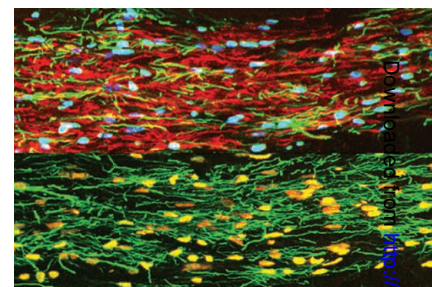
- 500 Biotinylated Rh(III) Complexes in Engineered Streptavidin for Accelerated Asymmetric C–H Activation
T. K. Hyster et al.
Modifying an achiral ligand to dock in a protein renders catalysis by its rhodium complex asymmetric.
- 504 Chiral Cyclopentadienyl Ligands as Stereocontrolling Element in Asymmetric C–H Functionalization
B. Ye and N. Cramer
A ligand rarely applied to asymmetric catalysis has been chirally modified to furnish a highly selective rhodium catalyst.
>> *Perspective p. 479*
- 506 Fluorescence Enhancement at Docking Sites of DNA-Directed Self-Assembled Nanoantennas
G. P. Acuna et al.
A DNA origami structure enhances the emission of a dye molecule by directing the proximate binding of gold nanoparticles.
- 510 Feathered Non-Avian Dinosaurs from North America Provide Insight into Wing Origins
D. K. Zelenitsky et al.
Analysis of feathered theropod fossils from North America suggests that feathers may have first evolved for display.
- 514 *Australopithecus afarensis* Scapular Ontogeny, Function, and the Role of Climbing in Human Evolution
D. J. Green and Z. Alemseged
The shoulder of *Australopithecus afarensis* implies that, although bipedal, this early human was an active climber.
>> *Perspective p. 478*; *Science Podcast*
- 517 Status and Solutions for the World's Unassessed Fisheries
C. Costello et al.
Poorly monitored, small-size fisheries are in decline, but few of them are near collapse.
>> *Perspective p. 474*

- 520 The APC/C Inhibitor XErp1/Emi2 Is Essential for *Xenopus* Early Embryonic Divisions
T. Tischer et al.
The protein XErp1 regulates cell cycle progression in frog embryos by inhibiting the anaphase-promoting complex/cyclosome.
- 524 Maturation-Dependent HIV-1 Surface Protein Redistribution Revealed by Fluorescence Nanoscopy
J. Chojnacki et al.
Rearrangements of the interior structural lattice cluster a surface glycoprotein as the virus preps for cell entry.
- 528 In Vivo Architecture and Action of Bacterial Structural Maintenance of Chromosome Proteins
A. Badrinarayanan et al.
SMC proteins form a dimer of adenosine triphosphate (ATP)–bound dimers, which translate ATP hydrolysis into mechanical DNA remodeling.
- 532 Regulatory T Cells Increase the Avidity of Primary CD8⁺ T Cell Responses and Promote Memory
L. Pace et al.
Regulatory T cells enhance the avidity of T cells, thereby promoting responses to foreign antigens instead of self-antigens.
- 536 Elnf1 Regulates Target-Specific Release Probability at CA1-Interneuron Synapses
E. L. Sylwestrak and A. Ghosh
A protein in a hippocampal postsynaptic neuron templates transmitter release kinetics in its presynaptic neuron.
>> *Perspective p. 482*
- 540 Oxytocin/Vasopressin-Related Peptides Have an Ancient Role in Reproductive Behavior
J. L. Garrison et al.
Oxytocin/vasopressin-related peptides and their receptors coordinate male mating programs in *Caenorhabditis elegans*.
- 543 Vasopressin/Oxytocin-Related Signaling Regulates Gustatory Associative Learning in *C. elegans*
I. Beets et al.
Nematode neuropeptides and their G protein–coupled receptors support behavioral responses to salt.
>> *Perspective p. 475*

CONTENTS continued >>



page 472



page 491



page 510

ONLINE HIGHLIGHTS

SCIENCEEXPRESS

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Publication Ahead of Print

A Global Pattern of Thermal Adaptation in Marine Phytoplankton

M. K. Thomas et al.

10.1126/science.1224836

Akt-Mediated Regulation of Autophagy and Tumorigenesis Through Beclin 1 Phosphorylation

R. C. Wang et al.

10.1126/science.1225967

The *Legionella* Effector RavZ Inhibits Host Autophagy Through Irreversible Atg8 Deconjugation

A. Choy et al.

10.1126/science.1227026

A Bipolar Spindle of Antiparallel ParM Filaments Drives Bacterial Plasmid Segregation

P. Gayathri et al.

10.1126/science.1229091

Binary Millisecond Pulsar Discovery via Gamma-Ray Pulsations

H. J. Pletsch et al.

10.1126/science.1229054

TECHNICAL COMMENTS

Comment and Response on "Conspecific Negative Density Dependence and Forest Diversity"

Comment: I. A. Dickie et al.

<http://dx.doi.org/10.1126/science.1225520>

Response: D. J. Johnson et al.

<http://dx.doi.org/10.1126/science.1225996>

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A new study supports the idea that cooking helped human ancestors expand their minds.

http://scim.ag/Big_Brains

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A temple erected by a Roman emperor is among the earliest evidence of orchids in Western art.

http://scim.ag/Evidence_Orchids

Antibiotic-Resistant Bugs Go Wild

Researchers find deadly hospital bacterium in rabbits and a migratory shorebird.

<http://scim.ag/Hospital-Bacterium>

SCIENCE SIGNALING

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The Signal Transduction Knowledge Environment

23 October issue: <http://scim.ag/ss102312>

RESEARCH ARTICLE: Akt Phosphorylates the Transcriptional Repressor Bmi1 to Block Its Effects on the Tumor Suppressing *Ink4a-Arf* Locus

Y. Liu et al.

PODCAST

S. D. Nimer and A. M. VanHook

Akt counteracts growth-promoting signals by stimulating the transcription of tumor suppressor genes.

PERSPECTIVE: PKR-Dependent Inflammatory Signals

R. Kang and D. Tang

The RNA-dependent protein kinase activates the inflammasome to promote inflammation.

PRESENTATION: The Effect of Acute and Chronic Stress on Growth

L. Säwendahl

The glucocorticoids and inflammatory cytokines induced by stress can impair bone growth.

PRESENTATION: The Effects of Acute and Chronic Stress on Diabetes Control

M. L. Marcovecchio and F. Chiarelli

Stress-induced hormonal changes alter glucose homeostasis in both diabetic and healthy patients.

PRESENTATION: P450 Oxidoreductase Deficiency—A Disorder of Steroidogenesis with Multiple Clinical Manifestations

W. L. Miller et al.

Mutations in a steroid biosynthetic enzyme cause a range of clinical symptoms.

SCIENCE TRANSLATIONAL MEDICINE

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Integrating Medicine and Science

24 October issue: <http://scim.ag/ss102412>

RESEARCH ARTICLE: NADPH Oxidase Inhibits the Pathogenesis of Systemic Lupus Erythematosus

A. M. Campbell et al.

Neutrophil NETs are not required for SLE development in a mouse model.

RESEARCH ARTICLE: Targeting Cancer with a Lupus Autoantibody

J. E. Hansen et al.

FOCUS: Lupus Antibody Tops Cancer Cells

J. M. Ford

A cell-penetrating lupus anti-DNA antibody inhibits DNA repair and is toxic to cancer cells.

RESEARCH ARTICLE: Quantitative Image Analysis of Cellular Heterogeneity in Breast Tumors Complements Genomic Profiling

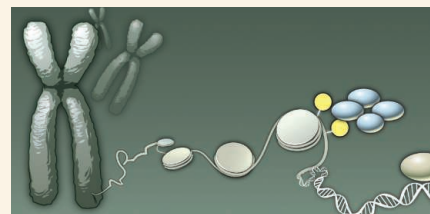
Y. Yuan et al.

Quantitative image analysis of breast tumors contributes to a predictor of survival.

FOCUS: Building a Life Sciences Innovation Ecosystem

K. D. Harrison et al.

Universities should support research with commercial potential.



SCIENCE SIGNALING

Silencing a transcriptional silencer.

SCIENCE CAREERS

www.sciencecareers.org/career_magazine

Free Career Resources for Scientists

<http://scim.ag/SciCareers26October2012>

Experimental Error: A Cure for Listlessness

A. Ruben

Our columnist lists the top N of everything in science careers, where N = fun.

Teaching Postdocs to Be Professors

M. Price

An NIH program readies teaching-focused postdocs—especially minorities—for lab-and-classroom jobs.

Life at the Bottleneck

R. Müller

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