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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

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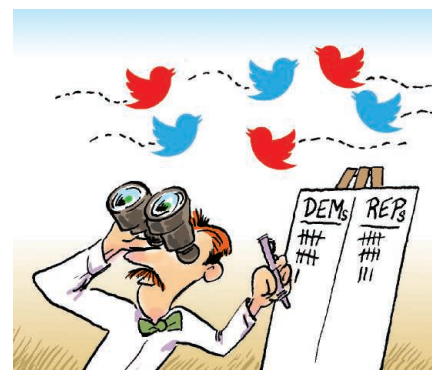
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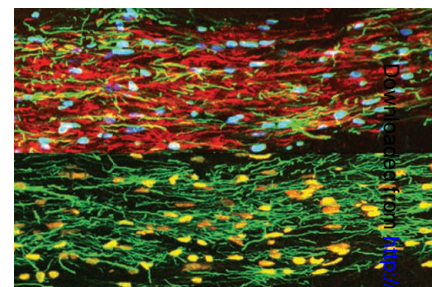
- 500 Biotinylated Rh(III) Complexes in Engineered Streptavidin for Accelerated Asymmetric C–H Activation
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- 514 *Australopithecus afarensis* Scapular Ontogeny, Function, and the Role of Climbing in Human Evolution
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Publication 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

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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

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

PERSPECTIVE: PKR-Dependent Inflammatory Signals

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

PRESENTATION: The Effect of Acute and Chronic Stress on Growth

L. Säwendahl

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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

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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

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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

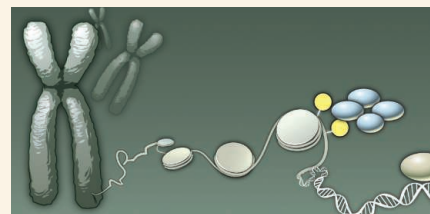
Y. Yuan et al.

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

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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.

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R. Müller

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