Africa is the source of all modern humans. A genetic study of 121 populations from across the continent traces them back to 14 ancestral groups and documents the extent of diversity within and among African populations. See page 1035.

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## REVIEW

1029  Understanding the Warbug Effect: The Metabolic Requirements of Cell Proliferation  
M. G. Vander Heiden et al.

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1034  The SOS Response Controls Integron Recombination  
É. Guerin et al.  
Bacteria can mobilize antibiotic resistance under stressful conditions.

## RESEARCH ARTICLE

1035  The Genetic Structure and History of Africans and African Americans  
S. A. Tishkoff et al.  
A genetic study illuminates population history, as well as the relationships among and the origin of major language families.

## REPORTS

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I. V. Kukushkin et al.  
The dispersion of excitations in a buried two-dimensional electron system can now be probed.  
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1048  Real-Time Infrared Detection of Cyanide Flip on Silver-Alumina NO\textsubscript{x} Removal Catalyst  
F. Thibault-Starzyk et al.  
Rapid initiation of a catalytic reaction through laser heating enables the spectroscopic detection of a key intermediate.

1051  Fabricating Genetically Engineered High-Power Lithium-Ion Batteries Using Multiple Virus Genes  
Y. J. Lee et al.  
A genetically modified virus is used to form an efficient cathodic battery material.

1055  Greater Transportation Energy and GHG Offsets from Bioelectricity Than Ethanol  
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Electric vehicles powered by electricity made from biofuels are more efficient than vehicles fueled by bioethanol.  
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1058  Exploration of Victoria Crater by the Mars Rover Opportunity  
S. W. Squyres et al.  
Water-induced alteration processes once acted on sedimentary rocks across a plain near the equator of Mars.

1061  Bone Assemblages Track Animal Community Structure over 40 Years in an African Savanna Ecosystem  
D. Western and A. K. Behrensmeier  
Species abundances in African mammal bone assemblages show promise for reconstructing modern and ancient community structures.

1064  Regulators of PP2C Phosphatase Activity Function as Abscisic Acid Sensors  
Y. Ma et al.  
Abscisic acid inhibits type 2C protein phosphatases via the PYR/PYL family of START proteins.

1068  Abscisic Acid Inhibits Type 2C Protein Phosphatases via the PYR/PYL Family of START Proteins  
S.-Y. Park et al.  
Links between two ancient multimember protein families signal responses to the plant hormone abscisic acid.  
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Current mobile phone usage prevents major mobile virus outbreaks, but conditions could arise leading to a phone epidemic.  
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High-frequency pulses in deep brain cells release dopamine and cause reward-related behavior in mice.

1084  The Human K-Complex Represents an Isolated Cortical Down-State  
S. S. Cash et al.  
A characteristic electroencephalogram pattern seen during sleep is accompanied by a steep decline in neural activity.

1087  Crystal Structure of the Nuclear Export Receptor CRM1 in Complex with Snurportin1 and RanGTP  
T. Monecke et al.  
The structure of an exportin complex shows how nuclear transport complexes differentially recognize cargo.
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Mockingbirds can pick a threatening person out of a crowd.

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R. C. Hseuh et al.
Despite exposure to multiple ligands, a macrophage cell line exhibits a surprisingly limited number of responses.

RESEARCH ARTICLE: TRPM2 Functions as a Lysosomal Ca\(^{2+}\)-Release Channel in β Cells
I. Lange et al.
TRPM2-mediated Ca\(^{2+}\) release from lysosomal stores contributes to pancreatic β cell death in response to oxidative stress.

PERSPECTIVE: Limb Development Takes a Measured Step Toward Systems Analysis
S. Mackem and M. Lewandoski
Gremlin links slow and fast signaling feedback loops, which contribute to robust regulation of mouse limb patterning.

PODCAST
E. Oancea and A. M. VanHook
TRPM1 is a cation channel found on vesicular membranes and associated with melanin content in melanocytes.

FORUM: Poster Award Winners from "Visualizing Immune System Complexity"
N. R. Gaugh
Three students are recognized for their work at an EMBO workshop held at the Centre d’Immuno logie de Marseille-Luminy in France in January 2009.

E-LETTER: ACC Award
Science Signaling Editors
Naoki Sawada wins a Young Investigator Award from the American Academy of Cardiology for his Science Signaling Research Article.

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Editor's Summary

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