**EDITORIAL**

249 Prioritizing Science Education
Bruce Alberts

> Grand Challenges in Science Education section p. 290

**NEWS OF THE WEEK**

254 A roundup of the week’s top stories

**NEWS & ANALYSIS**

257 Request Would Let Science Rebound From Sequester
258 Wild Cards Remain After Proposed Reshuffle of STEM Education

**NEWS FOCUS**

266 Chasing Ants—and Robots—to Understand How Societies Evolve
The Private Lives of Ants
> Science Express Report by D. P. Mersch et al.

269

**PERSPECTIVES**

279 3D Mapping in the Brain
C. Barry and C. F. Doeller
> Reports pp. 363 and 367

280 Climate’s Dark Forcings
O. Andreade and V. Ramathan

**ON THE WEB THIS WEEK**

> Special Issue Video
Watch a video about improving education in the developing world at www.sciencemag.org/special/education2013

**LETTERS**

272 Drought and China’s Cave Species
S.-S. Shu et al.

Little Emperors Pose Behavioral Challenges
L. Cameron et al.

Preventing Prejudice in Genome Profiling
M. Maruthappu and A. E. Finlayson

**CORRECTIONS AND CLARIFICATIONS**

273

**TECHNICAL COMMENT ABSTRACTS**

**BOOKS ET AL.**

274 The Earthquake Observers
D. R. Coen, reviewed by G. C. Beroza

275 Edinburgh International Science Festival
reviewed by D. Dixon and E. Straughan

> Science Podcast

**EDUCATION FORUMS**

276 Opportunities and Challenges in Next Generation Standards
E. K. Stage et al.

278 Driven by Diversity
J. Ferrini-Mundy
> Grand Challenges in Science Education section p. 290

**PERSPECTIVES**

284 Teacherpreneurs: A Bold Brand of Teacher Leadership for 21st-Century Teaching and Learning
B. Berry

**CONTENTS continued >>**

The 21st-century scientific workforce needs new skills and knowledge to keep pace with ever-changing technology. Larger, more diverse student populations clamor for access to knowledge. All global citizens, whether in a doctor’s office or polling booth, must be better informed. All of these needs call for expanded, improved science education. In this special issue, we have invited experts to discuss the most important challenges facing science education. See the special section beginning on page 290.

Images: Thinkstock
Heterochronic Genes Turn Back the Clock in Old Neurons  
P. Nix and M. Bastiani  
>> Report p. 372

Polarization Traffic Control for Surface Plasmons  
A. E. Mirotshnichenko and Y. S. Kivshar  
>> Reports pp. 328 and 331

Great Apes and Zoonoses  
P. M. Sharp et al.

Pursuing Near-Zero Response  
N. Engheta

Fire in the Ocean  
C. A. Mastello and P. Louchouarn  
>> Report p. 345

Pervasive Externalities at the Population, Consumption, and Environment Nexus  
P. S. Dasgupta and P. R. Ehrlich  
Challenges posed by the economic consequences of population growth and consumption require collective action.

Near-Field Interference for the Unidirectional Excitation of Electromagnetic Guided Modes  
F. J. Rodríguez-Fortuño et al.

Polarization-Controlled Tunable Directional Coupling of Surface Plasmon Polaritons  
J. Lin et al.

External Quantum Efficiency Above 100% in a Singlet-Exciton-Fission-Based Organic Photovoltaic Cell  
D. N. Congreve et al.

Multicompartment Mesoporous Silica Nanoparticles with Branched Shapes: An Epitaxial Growth Mechanism  
T. Suteewong et al.

Reorganization of Southern Ocean Plankton Ecosystem at the Onset of Antarctic Glaciation  
A. J. P. Houben et al.

Global Charcoal Mobilization from Soils via Dissolution and Riverine Transport to the Oceans  
R. Jaffé et al.

A larger-than-assumed fraction of charcoal produced by wildfires leaches out of soils and is transported to the oceans.

>> Perspective p. 287

Resilience and Recovery of Overexploited Marine Populations  
P. Neubauer et al.

Current fish harvests and low fish levels make fishery recovery improbable for most of the world’s depleted stocks.

A KRAB/KAP1-miRNA Cascade Regulates Erythropoiesis Through Stage-Specific Control of Mitophagy  
I. Barde et al.

Protein- and RNA-based transcriptional regulation governs the removal of mitochondria during red blood cell differentiation.

The Helicase-Like Domains of Type III Restriction Enzymes Trigger Long-Range Diffusion Along DNA  
F. W. Schwarz et al.

A bacterial enzyme that cuts DNA uses a few adenosine triphosphates to allow it to scan across thousands of base pairs.

Structural Basis for Kinesin-1:Cargo Recognition  
S. Perino et al.

The structure of a portion of a molecular motor complexed to a cargo peptide provides a close-up view of the interaction.

Actin-Propelled Invasive Membrane Protrusions Promote Fusogenic Protein Engagement During Cell-Cell Fusion  
K. Shilagardi et al.

An inducible Drosophila cell-fusion system reveals the interplay between cellular fusion proteins and actin-driven membrane remodeling.

Bat and Rat Neurons Differ in Theta-Frequency Resonance Despite Similar Coding of Space  
J. G. Heys et al.

Stellate cells in the entorhinal cortex of bats and rats show significant differences in their electrophysiological properties.

Representation of Three-Dimensional Space in the Hippocampus of Flying Bats  
M. M. Yartsev and N. Ulanovsky  
The spatial firing properties of neurons were recorded in bats during flight using a wireless neural-telemetry system.

Developmental Decline in Neuronal Regeneration by the Progressive Change of Two Intrinsic Timers  
Y. Zou et al.

Reciprocal signals promote axon regeneration in young worms and repress axon regeneration in older worms.

A Neural Marker of Perceptual Consciousness in Infants  
S. Rouder et al.

The brain mechanisms underlying conscious perception are already present in infancy and improve with age.