REVIEW

BREVIA
1517 A Natural Deletion of the HoxC Cluster in Elasmobranch Fishes B. L. King et al.
Sequence analysis shows that sharks and batoids lack one of four Hox gene clusters once thought necessary for development.

RESEARCH ARTICLES
1518 Detecting Novel Associations in Large Data Sets D. N. Reshef et al.
A statistical method reveals relationships among variables in complex data sets. >> Perspective p. 1502; Science Podcast

1524 The Structure of the Eukaryotic Ribosome at 3.0 Å Resolution A. Ben-Shem et al.
A close-up view of the ribosome’s 79 proteins and 5500 RNA nucleotides.

REPORTS
1530 Peak External Photocurrent Quantum Efficiency Exceeding 100% via MEG in a Quantum Dot Solar Cell O. E. Semonin et al.
An experimental solar cell productively uses an extra fraction of high-energy light typically lost as heat. >> Report p. 1541

1533 Growth of Uniformly Oriented Silica MFI and BEA Zeolite Films on Substrates T. C. T. Pham et al.
Precise control over synthetic conditions eliminates misalignment of pore channels during the growth of zeolite films.

1538 Revealing Atom-Radical Reactivity at Low Temperature Through the N + OH Reaction J. Daranlot et al.
Rates have been measured for a chemical transformation of interstellar interest in which both reagents are unstable. >> Perspective p. 1506

1541 Observing the Multifecton State in Singlet Fission and Ensuing Ultrafast Multielectron Transfer W.-L. Chan et al.
Photoelectron detection reveals a previously elusive, short-lived paired carrier state of interest in solar light harvesting. >> Report p. 1530

1545 A Coherent Signature of Anthropogenic Nitrogen Deposition to Remote Watersheds of the Northern Hemisphere G. W. Holtgrieve et al.
Deposition of reactive nitrogen from human activities occurred in the preindustrial era. >> Perspective p. 1504

1548 High Relatedness Is Necessary and Sufficient to Maintain Multicellularity in Dicyostelium J. J. Kuzdzal-Fick et al.
Experimental evolution shows that the cooperation of cells in multicellular organisms degrades under low relatedness.

1551 The Tricarboxylic Acid Cycle in Cyanobacteria S. Zhang and D. A. Bryant
Contrary to expectations, many photosynthetic cyanobacteria maintain a metabolic flexibility that works in the dark. >> Perspective p. 1508

1553 Host Proteasomal Degradation Generates Amino Acids Essential for Intracellular Bacterial Growth C. D. Price et al.
The bacterial pathogen Legionella pneumophila ensures amino acid supplies by promoting degradation of target host proteins.

1557 The Molecular Basis of Acid Insensitivity in the African Naked Mole-Rat E. St. John Smith et al.
Life in a high–carbon dioxide environment has eliminated acid-evoked pain in the naked mole-rat. >> Science Podcast

1561 Natural Aryl Hydrocarbon Receptor Ligands Control Organogenesis of Intestinal Lymphoid Follicles E. A. Kiss et al.
Nutrients can shape immune system development function through aryl hydrocarbon receptor signaling.

1565 RIM-Binding Protein, a Central Part of the Active Zone, Is Essential for Neurotransmitter Release K. S. Y. Liu et al.
Transmitter release at the fly neuromuscular junction is abolished in the absence of a scaffold protein.

1569 Inhibitory Plasticity Balances Excitation and Inhibition in Sensory Pathways and Memory Networks T. P. Vogels et al.
Plasticity at inhibitory synapses maintains balanced excitatory and inhibitory synaptic inputs at cortical neurons. >> Perspective p. 1507

1573 Autophagy-Dependent Anticancer Immune Responses Induced by Chemotherapeutic Agents in Mice M. Michaud et al.
The release of adenosine triphosphate through autophagy can promote antitumor immune responses. >> Perspective p. 1501

1578 Uninformed Individuals Promote Democratic Consensus in Animal Groups I. D. Couzin et al.
Uninformed individuals inhibit extremism and enforce fair representation during collective decision-making. >> Perspective p. 1503
Asymmetry and Aging of Mycobacterial Cells Lead to Variable Growth and Antibiotic Susceptibility

B. B. Aldridge et al.

The growing pole of the tuberculosis-causing bacterium is inherited by only one offspring, which can then elongate faster.

10.1126/science.1216166

Asymmetric B Cell Division in the Germinal Center Reaction

B. E. Barnett et al.

Germinal center B cells undergo asymmetric cell division.

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Equilibrative Nucleoside Transporter 3 Deficiency Perturbs Lysosome Function and Macrophage Homeostasis

C.-L. Hsu et al.

Lack of the transporter critical for recycling of nucleosides after phagocytosis results in a fatal expansion of macrophages.

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Fitness Trade-Offs and Environmentally Induced Mutation Buffering in Isogenic C. elegans

M. O. Casanueva et al.

Stochastic variation in a cellular stress response pathway can predict the outcome of mutations in individuals.

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Guiding Limited Use of Chimpanzees in Research

B. M. Altevogt et al.

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>> News story p. 1484

How the ‘Thermal Grill’ Illusion Tricks the Mind

A strange burning sensation may provide clues to how the brain registers pain.

http://scim.ag/Thermal_Grill

‘Vocal Fry’ Creeping Into U.S. Speech

Young women end sentences with a gravelly buzz in what could be a catching trend.

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PERSPECTIVE: Receptor Antibodies as Novel Therapeutics for Diabetes

S. Ussar et al.

RESEARCH ARTICLE: Amelioration of Type 2 Diabetes by Antibody-Mediated Activation of Fibroblast Growth Factor Receptor 1

A.-L. Wu et al.

Designer antibodies that mimic hormone activity provide new approaches to treating diabetes.

RESEARCH ARTICLE: An NKG2D-Mediated Human Lymphoid Stress Surveillance Response with High Interindividual Variation

S. Shoft et al.

The stress surveillance response to cell damage varies among humans, perhaps explaining differences in transplant rejection.

RESEARCH ARTICLE: Pathogenesis of Lethal Cardiac Arrhythmias in MeCP2 Mutant Mice—Implication for Therapy in Rett Syndrome

M. D. McCauley et al.

Lethal ventricular arrhythmias in a mouse model of Rett syndrome can be prevented.

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