RESEARCH ARTICLES

1068 The Innate Growth Bistability and Fitness Landscapes of Antibiotic-Resistant Bacteria
J. B. Deris et al.
Identical bacteria can have low-level resistance to low concentrations of drugs that can flip subpopulations into dormancy. Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1237435

1069 Chelyabinsk Airburst, Damage Assessment, Meteorite Recovery, and Characterization
O. P. Popova et al.
A detailed study of a recent asteroid impact provides an opportunity to calibrate the damage caused by these rare events. >> Perspective p. 1051

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1073 Nanoscale Fe₃O₄-Based Catalysts for Selective Hydrogenation of Nitroarenes to Anilines
R. V. Jagadeesh et al.
An iron oxide catalyst selects nitro groups for reduction in the presence of many other sensitive chemical substituents.

1076 Cobalt Precursors for High-Throughput Discovery of Base Metal Asymmetric Alkene Hydrogenation Catalysts
M. R. Friedfeld et al.
High-throughput screening furnishes surprisingly effective cobalt catalysts from versatile precursors.

1080 Amine(imine)diphosphine Iron Catalysts for Asymmetric Transfer Hydrogenation of Ketones and Imines
W. Zuo et al.
Ligand design based on mechanistic insight enables highly efficient iron catalysis. >> Perspective p. 1054

1084 Imaging the Absolute Configuration of a Chiral Epoxide in the Gas Phase
P. Herwig et al.
Ultrafast electron stripping by a carbon foil enables precise elucidation of molecular geometries as the nuclei fly apart.

1086 Regular Patterns in Frictional Resistance of Ice-Stream Beds Seen by Surface Data Inversion
O. V. Sergienko and R. C. A. Hindmarsh
Sheer stress between the ice and the underlying bedrock of Pine Island and Thwaites Glaciers is concentrated into bands.

1090 Hepatitis C Virus E2 Envelope Glycoprotein Core Structure
L. Kong et al.
The structure of a key viral surface protein provides insight for drug and vaccine development.

1094 27-Hydroxycholesterol Links Hypercholesterolemia and Breast Cancer Pathophysiology
E. R. Nelson et al.
The activity of a specific metabolite of cholesterol may help explain why obesity is a risk factor for breast cancer. >> News story p. 1028

1098 Nonenzymatic Template-Directed RNA Synthesis Inside Model Protocells
K. Adamala and J. W. Szostak
Citrate can act as a partial magnesium chelator to facilitate the synthesis of RNA within a protocell-like vesicle. >> News story p. 1032

1100 Primate Transcript and Protein Expression Levels Evolve Under Compensatory Selection Pressures
Z. Khan et al.
In humans, chimpanzees, and macaques, protein expression levels evolve under stronger evolutionary constraint than messenger RNA levels. >> Perspective p. 1052

1104 Phycobilisomes Supply Excitations to Both Photosystems in a Megacomplex in Cyanobacteria
H. Liu et al.
The organization of several protein complexes involved in photosynthesis elucidates their energy transfer mechanisms.

1107 Long-Distance Integration of Nuclear ERK Signaling Triggered by Activation of a Few Dendritic Spines
S. Zhai et al.
Induction of long-term potentiation in a few dendritic spines signals to the nucleus to activate transcription factors.

1111 Neural Activity in Human Hippocampal Formation Reveals the Spatial Context of Retrieved Memories
J. F. Miller et al.
Place cells in the human brain that fired at an object’s location are reactivated during spontaneous recall.

1114 BTBD3 Controls Dendrite Orientation Toward Active Axons in Mammalian Neocortex
A. Matsui et al.
High-acuity sensory function may be achieved by the tuning of subcellular polarity to sources of high sensory activity.

1119 Though They May Be Unaware, Newlyweds Implicitly Know Whether Their Marriage Will Be Satisfying
J. K. McNulty et al.
Relationship satisfaction is captured by implicit measures of spousal attitudes. >> Science Podcast