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COVER
Immunostained fluorescence microscopy image of memory engram-bearing cells (red) in the dentate gyrus of a mouse hippocampus (image width: 1.5 millimeters). These cells were genetically tricked to express the protein channelrhodopsin-2 during memory formation, thus becoming responsive to light stimulation. When the cells were activated by light, the mice simultaneously associated a genuine memory with an undesirable event (a foot shock) to create a new but false memory. See page 387.
Image: Xu Liu and Steve Ramirez

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Inhibition of a protein kinase differentially affects its targets, depending on phosphorylation site characteristics. Research Article Summary; for full text: [http://dx.doi.org/10.1126/science.1236566](http://dx.doi.org/10.1126/science.1236566)

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Holographic Vortex Liquids and Superfluid Turbulence
P. M. Chesler et al.
A gravitational theory is used to elucidate the flow of energy in a turbulent superfluid.

Element-Resolved Corrosion Analysis of Stainless-Type Glass-Forming Steels
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Geometric Frustration of Icosahedron in Metallic Glasses
A. Hirata et al.
Small-volume regions in a bulk metallic glass show icosahedral ordering distorted by partial face-centered cubic symmetry.

A General Strategy for the Chemoenzymatic Synthesis of Asymmetrically Branched N-Glycans
Z. Wang et al.
Oligosaccharides synthesized from a versatile common precursor can be used to probe protein-carbohydrate interactions.

Identification of a Colonial Chordate Histocompatibility Gene
A. Voskoboynik et al.
A single gene predicts transplantation compatibility reactions in the star ascidian, Botryllus schlosseri.

Creating a False Memory in the Hippocampus
S. Ramirez et al.
Associations can be artificially created through reactivation of memory engrams in mouse dentate gyrus granule cells.

FtsZ Protofilaments Use a Hinge-Opening Mechanism for Constrictive Force Generation
Y. Li et al.
The curved structure of a protein involved in cell division reveals the mechanism for Z-ring constriction during cytokinesis.

Nuclear PTEN Controls DNA Repair and Sensitivity to Genotoxic Stress
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The phosphatase PTEN works as a lipid phosphatase in the cytoplasm and a protein phosphatase in the nucleus.

A Secreted PTEN Phosphatase That Enters Cells to Alter Signaling and Survival
B. D. Hopkins et al.
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H7N9 Influenza Viruses Are Transmissible in Ferrets by Respiratory Droplet
Q. Zhang et al.
A large survey of H7N9 influenza viruses in China reveals a spectrum of mutation and virulence.
Science 341 (6144), 316-415.

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