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NEUROSCIENCE
The Spread of Ras Activity Triggered by Activation of a Single Dendritic Spine
C. D. Harvey, R. Yasuda, H. Zhong, K. Svoboda
When strengthened, individual synapses on dendritic spines contain an activated small regulatory protein that spreads to nearby spines, possibly altering their sensitivity.

10.1126/science.1159675

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V. Boyer, A. M. Marino, R. C. Pooser, P. D. Lett
Passing light through a warm cloud of rubidium atoms creates quantum mechanically entangled twin images.

10.1126/science.1158275

BIOCHEMISTRY
Micelles Protect Membrane Complexes from Solution to Vacuum
N. P. Barrera, N. Di Bartolo, P. J. Booth, C. V. Robinson
Gas-phase lipid micelles protect a large complex of membrane proteins, allowing its subunit composition and ligand binding to be assessed by mass spectrometry.

10.1126/science.1159292

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K. Schawinski et al.
A burst of ultraviolet light reveals the initial expansion of a star leading to a supernova and identifies the star as a red supergiant.

10.1126/science.1160456

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S. Sallon et al.
A 2000-year-old date seed—recovered from archaeological excavations near the Dead Sea in Israel—successfully germinated and grew. >> Science Podcast

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An in Vivo Map of the Yeast Protein Interactome
K. Tarassov et al.
A method that identifies pairs of proteins that are 8 nanometers apart produces a map of interacting proteins in living yeast, finding known and previously unknown networks.

BIOCHEMISTRY
Recognition Dynamics Up to Microseconds Revealed from an RDC-Derived Ubiquitin Ensemble in Solution
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In solution, ubiquitin assumes all conformations seen in crystal structures of its complexes, indicating that it binds by conformational selection rather than induced fit. >> Perspective p. 1429

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The Rag GTPases Bind Raptor and Mediate Amino Acid Signaling to mTORC1
Y. Sancak et al.
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ECOLOGY
Animal Versus Wind Dispersal and the Robustness of Tree Species to Deforestation
D. Montoya, M. A. Zavala, M. A. Rodriguez, D. W. Purves
In Spanish forests, tree species with seeds that are dispersed by animals are more resilient in a fragmented forest than those with wind-dispersed seeds.

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VelB/VeA/LaeA Complex Coordinates Light Signal with Fungal Development and Secondary Metabolism
Ö. Bayram et al.
The multiprotein velvet complex in the fungus *Aspergillus nidulans* coordinates light-responsive development and the generation of secondary metabolites such as antibiotics and toxins.

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E. Soutoglou and T. Misteli
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Transfer of Learning After Updating Training Mediated by the Striatum
E. Dahlin, A. S. Neely, A. Larsson, L. Bäckman, L. Nyberg
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