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A frontal view of the fly brain (blue) showing two groups of dopamine-producing neurons pseudocolored green and magenta. The magenta neurons are engineered to express a light-sensitive protein. Optical signals (symbolized by a magenta beam of light) can selectively report and control the activity of these cells. Miesenböck (page 395) reviews the emerging field of optogenetics in a special section on advances in neuroscience methods starting on page 385.

Confocal images: Adam Claridge-Chang;
photomontage: Robert Roorda and Gero Miesenböck

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D. Iliopoulos et al.
Akt-dependent induction of a metastatic phenotype may depend on the balance of Akt1 and Akt2.

RESEARCH ARTICLE: Act1, a U-box E3 Ubiquitin Ligase for IL-17 Signaling
C. Liu et al.

PERСПЕКТИВА: IL-17 Receptor Signaling—Ubiquitin Gets In on the Act
S. D. Levin
The adaptor protein Act1 functions as a ubiquitin ligase to mediate interleukin-17 receptor–dependent activation of nuclear factor-κB.

RESEARCH ARTICLE: Chemical Genetics Identifies c-Src as an Activator of Primate Ectoderm Formation in Murine Embryonic Stem Cells
M. A. Meyn III and T. E. Smithgall

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M. A. Meyn III and A. M. VanHook
Kinesins engineered for inhibitor resistance reveal a unique role for c-Src in embryonic stem cell differentiation.

Science Careers

Free Career Resources for Scientists

Perspective: Three Crucial Questions When Applying to M.D.-Ph.D. Programs
L. F. Brass
Here are key factors to consider when deciding if an M.D.-Ph.D. is right for you.

Finding Your Way Into Policy Careers in Europe
E. Pain
Getting a policy job in Europe requires choosing a beat and finding your way in.

Tooling Up: Focus Your Industry CV
D. Jensen
Small changes in your CV can yield big rewards.
Editor's Summary

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