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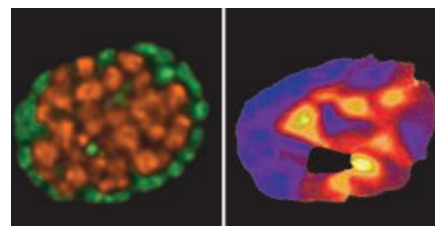
A frontal view of the fly brain (blue) showing two groups of dopamine-producing neurons pseudocolored green and magenta. The magenta neurons are engineered to express a light-sensitive protein. Optical signals (symbolized by a magenta beam of light) can selectively report and control the activity of 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

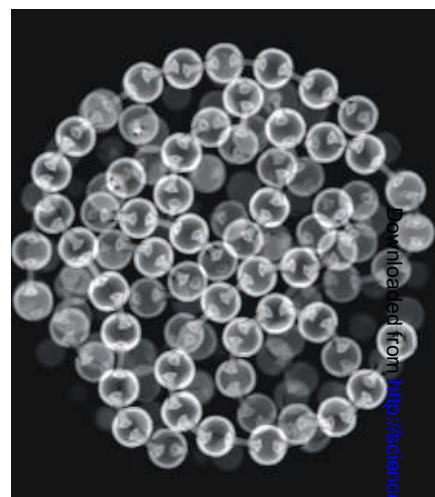
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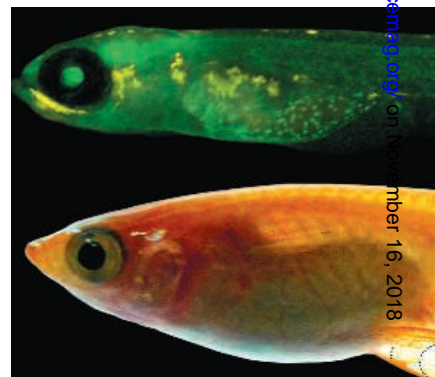
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How We Lost Our Diversity

Human ancestors survived two genetic bottlenecks as they spread out of Africa.

Monkey Moms Have Madonna Moments

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RESEARCH ARTICLE: MicroRNAs Differentially Regulated by Akt Isoforms Control EMT and Stem Cell Renewal in Cancer Cells

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RESEARCH ARTICLE: Chemical Genetics Identifies c-Src as an Activator of Primitive Ectoderm Formation in Murine Embryonic Stem Cells

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Kinases engineered for inhibitor resistance reveal a unique role for c-Src in embryonic stem cell differentiation.

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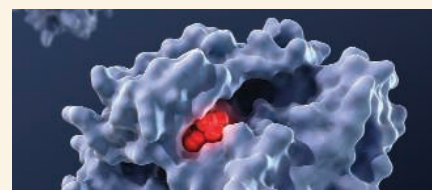
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PERSPECTIVE: Arvid Carlsson, An Early Pioneer in Translational Medicine

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Carlsson discovered the L-dopa treatment for Parkinson's.

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