

Science

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Programa de
Biotecnología
004

Advances in **Neuroscience Methods**

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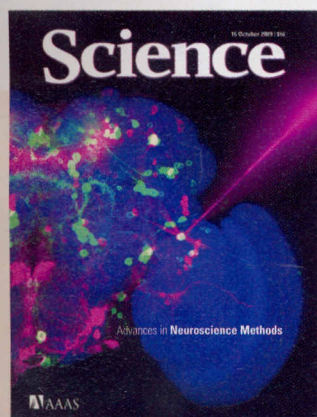
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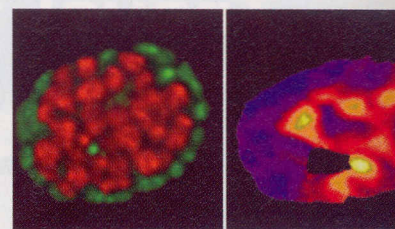
A frontal view of the fly brain (blue) showing two groups of dopamine-producing neurons pseudocolored green and magenta. The magenta neurons are engineered to express a light-sensitive protein. Optical signals (symbolized by a magenta beam of light) can selectively report and control the activity of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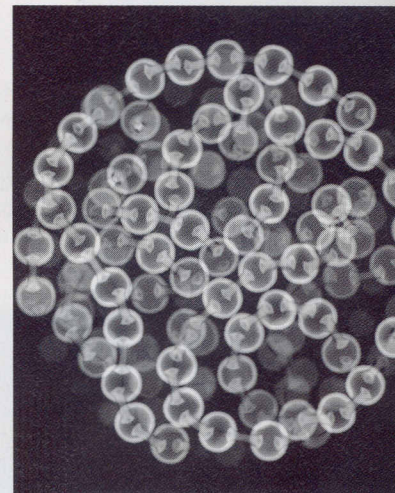
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Physics? It's All the Same to Birds and Babies

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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

Rhesus macaques oogle their babies just like human mothers do.

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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: Act1, a U-box E3 Ubiquitin Ligase for IL-17 Signaling

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

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Perspective: Three Crucial Questions When Applying to M.D.-Ph.D. Programs

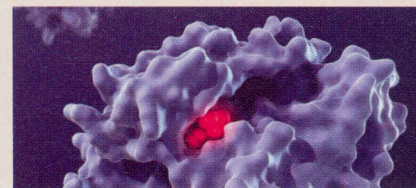
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Tooling Up: Focus Your Industry CV

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RESEARCH: Dopamine Gene Therapy for Parkinson's Disease in a Nonhuman Primate Without Associated Dyskinesia

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PERSPECTIVE: Gene Therapy for Dopamine Replacement in Parkinson's Disease

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Delivery of the synthetic enzymes for dopamine to Parkinsonian monkeys in a single vector ameliorates disease symptoms.

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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