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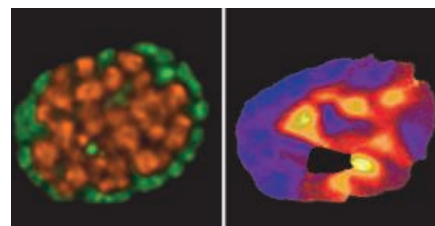
A frontal view of the fly brain (blue) showing two groups of dopamine-producing neurons pseudocolored green and magenta. The magenta neurons are engineered to express a light-sensitive protein. Optical signals (symbolized by a magenta beam of light) can selectively report and control the activity of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

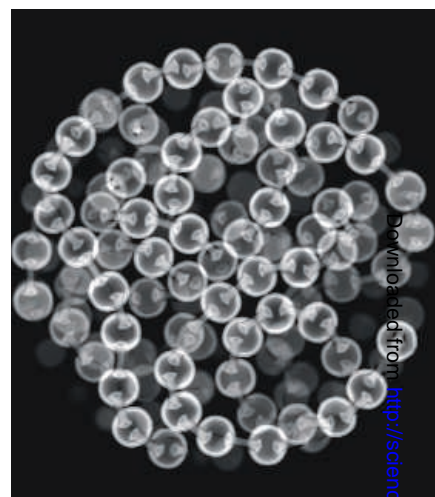
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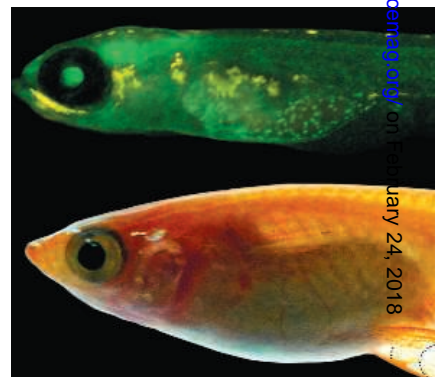
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Intracranial electrodes record activity in a language-associated area of the brain as words are identified and produced.  
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## SCIENCEEXPRESS

[www.sciencexpress.org](http://www.sciencexpress.org)

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*D. J. McComas et al.*  
10.1126/science.1180906  
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### Width and Variation of the ENA Flux Ribbon Observed by the Interstellar Boundary Explorer

*S. A. Fuselier et al.*  
10.1126/science.1180981

### Structures and Spectral Variations of the Outer Heliosphere in IBEX Energetic Neutral Atom Maps

*H. O. Funsten et al.*  
10.1126/science.1180927

### Comparison of Interstellar Boundary Explorer Observations with 3D Global Heliospheric Models

*N. A. Schwadron et al.*  
Observations by the Interstellar Boundary Explorer have revealed surprising features in the interaction between the heliosphere and the interstellar medium.  
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### Direct Observations of Interstellar H, He, and O by the Interstellar Boundary Explorer

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### Imaging the Interaction of the Heliosphere with the Interstellar Medium from Saturn with Cassini

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### The Crystal Structure of the Ribosome Bound to EF-Tu and Aminoacyl-tRNA

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>> [Science Podcast](#)

### The Structure of the Ribosome with Elongation Factor G Trapped in the Posttranslocational State

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### Leaps in Translational Elongation

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## SCIENCENOW

[www.sciencenow.org](http://www.sciencenow.org)

Highlights From Our Daily News Coverage

### Physics? It's All the Same to Birds and Babies

Rooks can grasp a basic physical principle, but how smart does that make them?

### 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.

## SCIENCE SIGNALING

[www.sciencesignaling.org](http://www.sciencesignaling.org)

The Signal Transduction Knowledge Environment

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

*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.*

### PERSPECTIVE: 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- $\kappa$ B.

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

*M. A. Meyn III and T. E. Smithgall*

## PODCAST

*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.

## SCIENCE CAREERS

[www.sciencereers.org/career\\_magazine](http://www.sciencereers.org/career_magazine)

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

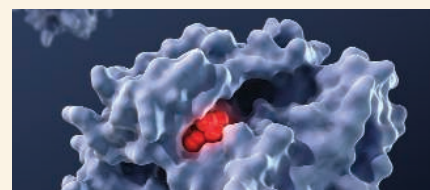
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Getting a policy job in Europe requires choosing a beat and finding your way in.

### Tooling Up: Focus Your Industry CV

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Small changes in your CV can yield big rewards.



## SCIENCE SIGNALING

Engineering inhibitor-resistant kinases.

## SCIENCE TRANSLATIONAL MEDICINE

[www.sciencetranslationalmedicine.org](http://www.sciencetranslationalmedicine.org)

Integrating Medicine and Science

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

*B. Jarraya et al.*

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

*A. Björklund et al.*

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

*J. K. Andersen*

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

## SCIENCE PODCAST

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Download the 16 October *Science* Podcast to hear about the interstellar interaction, KAUST, the taste of carbonation, and more.

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A History of Beginnings

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