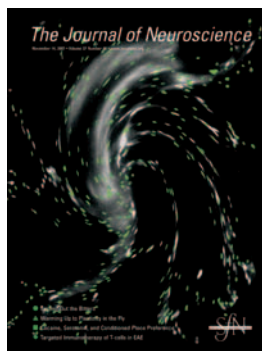


# The Journal of Neuroscience

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**Cover legend:** Surface neurotransmitter receptors, such as AMPA and NMDA receptors, transmit fast information between neurons. One way to investigate receptor surface trafficking is to use the single-molecule/particle detection method. The principle is based on the detection of single nanometer-sized molecules (e.g., organic dyes) or particles (e.g., Dots) that are coupled to surface receptor through a specific antibody. The cover image represents a hippocampal cultured neuron (with artistic distortion) that has been labeled with the synaptic marker Mitotracker (white spots) and an anti-GluR2 antibody (subunit of the AMPA receptor) coupled to QDots (green spots). Each of the green spots represent a single Dot at a given time point. Labeling must be performed at low tag densities in order to be optically resolved. QDot–GluR2 complexes are detected both outside and in synapses. Thanks to François Georges for artistic design of the image. For more information, see the Toolbox article by Groc et al. in this issue (pages 12433–12437).

## i This Week in The Journal

### Toolbox

- 12433 Surface Trafficking of Neurotransmitter Receptor: Comparison between Single-Molecule/Quantum Dot Strategies**  
Laurent Groc, Mathieu Lafourcade, Martin Heine, Marianne Renner, Victor Racine, Jean-Baptiste Sibarita, Brahim Lounis, Daniel Choquet, and Laurent Cognet

### Journal Club

- 12438 Reinforcing the Weight Attributed to Auditory Space across Saccades**  
Olivier Collignon

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- 12484 Cocaine-Conditioned Place Preference by Dopamine-Deficient Mice Is Mediated by Serotonin**  
Thomas S. Hnasko, Bethany N. Sotak, and Richard D. Palmiter
- 12540 Fundamental Failures of Shape Constancy Resulting from Cortical Anisotropy**  
Elias H. Cohen and Qasim Zaidi
- 12651 On-Line Control of Grasping Actions: Object-Specific Motor Facilitation Requires Sustained Visual Input**  
Gita Prabhu, Roger Lemon, and Patrick Haggard

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- 12452 Enhancement of GABA Release through Endogenous Activation of Axonal GABA<sub>A</sub> Receptors in Juvenile Cerebellum**  
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- 12464 Somatodendritic Release of Glutamate Regulates Synaptic Inhibition in Cerebellar Purkinje Cells via Autocrine mGluR1 Activation**  
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- 12489 Intracellular Ca<sup>2+</sup> Regulates Free-Running Circadian Clock Oscillation *In Vivo***  
Marie C. Harrisingh, Ying Wu, Gregory A. Lnenicka, and Michael N. Nitabach
- 12516 SynCAMs Organize Synapses through Heterophilic Adhesion**  
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- 12565 **Toll-Like Receptor Signaling Is Critical for Wallerian Degeneration and Functional Recovery after Peripheral Nerve Injury**  
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- 12577 **Molecular Mechanisms of Subtype-Specific Inhibition of Neuronal T-Type Calcium Channels by Ascorbate**  
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- 12590 **Adenomatous Polyposis Coli Is Differentially Distributed in Growth Cones and Modulates Their Steering**  
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- 12630 **Gustatory Expression Pattern of the Human TAS2R Bitter Receptor Gene Family Reveals a Heterogenous Population of Bitter Responsive Taste Receptor Cells**  
Maik Behrens, Susann Foerster, Frauke Staehler, Jan-Dirk Raguse, and Wolfgang Meyerhof
- 12690 **Increased Expression of Golgi Myelin Basic Proteins Enhances Calcium Influx into Oligodendroglial Cells**  
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- 12732 **The Nuclear Kinase Mitogen- and Stress-Activated Protein Kinase 1 Regulates Hippocampal Chromatin Remodeling in Memory Formation**  
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- 12743 **Phosphorylation of the Ca<sup>2+</sup>-Binding Protein CaBP4 by Protein Kinase C  $\zeta$  in Photoreceptors**  
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- 12546 **Regulation of Spine Development by Semaphorin3A through Cyclin-Dependent Kinase 5 Phosphorylation of Collapsin Response Mediator Protein 1**  
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- 12555 **E2F1 Works as a Cell Cycle Suppressor in Mature Neurons**  
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- 12611 **Temperature-Dependent Developmental Plasticity of *Drosophila* Neurons: Cell-Autonomous Roles of Membrane Excitability, Ca<sup>2+</sup> Influx, and cAMP Signaling**  
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- 12707 **Islet-1 Controls the Differentiation of Retinal Bipolar and Cholinergic Amacrine Cells**  
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- 12584 **A Novel Role for Extracellular Signal-Regulated Kinase in Maintaining Long-Term Memory-Relevant Excitability Changes**  
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- 12675 **Mental Simulation of Action in the Service of Action Perception**  
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- 12700 **Profound Decreases in Dopamine Release in Striatum in Detoxified Alcoholics: Possible Orbitofrontal Involvement**  
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#### NEUROBIOLOGY OF DISEASE

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- 12641 **Diminished Neurosteroid Sensitivity of Synaptic Inhibition and Altered Location of the  $\alpha 4$  Subunit of GABA<sub>A</sub> Receptors in an Animal Model of Epilepsy**  
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- 12721 **Alzheimer's Disease Peptide Epitope Vaccine Reduces Insoluble But Not Soluble/Oligomeric A $\beta$  Species in Amyloid Precursor Protein Transgenic Mice**  
Irina Petrushina, Anahit Ghochikyan, Mikayel Mktrichyan, Gregory Mamikonyan, Nina Movsesyan, Hayk Davtyan, Archita Patel, Elizabeth Head, David H. Cribbs, and Michael G. Agadjanyan

12755 **Erratum:** In the article “Tomosyn Negatively Regulates CAPS-Dependent Peptide Release at *Caenorhabditis elegans* Synapses” by Elena O. Gracheva, Anna O. Burdina, Denis Touroutine, Martine Berthelot-Grosjean, Hetal Parekh, and Janet E. Richmond, which appeared on pages 10176–10184 of the September 19, 2007 issue, the original graphs in Figure 4B were incorrect. The correct Figure 4 is printed in this issue.

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