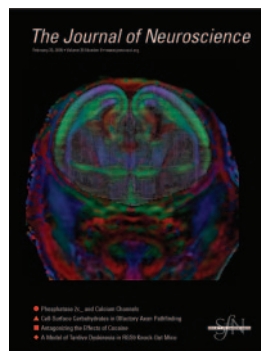


# The Journal of Neuroscience

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**Cover picture:** Magnetic resonance diffusion tensor imaging of an embryonic day 16 mouse brain. Orientation of neuronal tissue is visualized by both line segments and color. For details, see the article by Zhang et al. in this issue (pages 1881–1888).

## i This Week in The Journal

### Brief Communications

- 1889 **Identification of a Dopamine Transporter Ligand That Blocks the Stimulant Effects of Cocaine**  
Rajeev I. Desai, Theresa A. Kopajtic, Mikhail Koffarnus, Amy Hauck Newman, and Jonathan L. Katz
- 1979 **Persistent Phosphorylation by Protein Kinase M $\zeta$  Maintains Late-Phase Long-Term Potentiation**  
Peter Serrano, Yudong Yao, and Todd Charlton Sacktor
- 2102 **Involvement of Sensorimotor, Limbic, and Associative Basal Ganglia Domains in L-3,4-Dihydroxyphenylalanine-Induced Dyskinesia**  
Céline Guigoni, Qin Li, Incarnation Aubert, Sandra Dovero, Bernard H. Bioulac, Bertrand Bloch, Alan R. Crossman, Christian E. Gross, and Erwan Bezard
- 2132 **3,4-Dihydroxyphenylalanine Reverses the Motor Deficits in Pitx3-Deficient *Aphakia* Mice: Behavioral Characterization of a Novel Genetic Model of Parkinson's Disease**  
Dong-Youn Hwang, Sheila M. Fleming, Paul Ardayfio, Taylor Moran-Gates, Hansoo Kim, Frank I. Tarazi, Marie-Francoise Chesselet, and Kwang-Soo Kim

### Articles

#### CELLULAR/MOLECULAR

- 1881 **Magnetic Resonance Diffusion Tensor Microimaging Reveals a Role for *Bcl-x* in Brain Development and Homeostasis**  
Jiangyang Zhang, Ying-bei Chen, J. Marie Hardwick, Michael I. Miller, Celine Plachez, Linda J. Richards, Paul Yarowsky, Peter van Zijl, and Susumu Mori
- 1914 **A Protein Phosphatase 2 $\alpha$ -Ca<sup>2+</sup> Channel Complex for Dephosphorylation of Neuronal Ca<sup>2+</sup> Channels Phosphorylated by Protein Kinase C**  
Dongjun Li, Fushun Wang, Meizan Lai, Yuan Chen, and Ji-fang Zhang
- 1992 **Galantamine Activates Muscle-Type Nicotinic Acetylcholine Receptors without Binding to the Acetylcholine-Binding Site**  
Gustav Akk and Joe Henry Steinbach
- 2024 **NMDA Receptors Increase the Size of GABAergic Terminals and Enhance GABA Release**  
Mónica L. Fiszman, Andrea Barberis, Congyi Lu, Zhanyan Fu, Ferenc Erdélyi, Gábor Szabó, and Stefano Vicini
- 2042 **Calcium-Independent, cGMP-Mediated Light Adaptation in Invertebrate Ciliary Photoreceptors**  
Maria del Pilar Gomez and Enrico Nasi

- 2050 **Role for Runx1 in the Proliferation and Neuronal Differentiation of Selected Progenitor Cells in the Mammalian Nervous System**  
Francesca M. Theriault, Hugh N. Nuthall, Zhifeng Dong, Rita Lo, Fanie Barnabe-Heider, Freda D. Miller, and Stefano Stifani
- 2070 **Acquisition, Consolidation, Reconsolidation, and Extinction of Eyelid Conditioning Responses Require *De Novo* Protein Synthesis**  
Mari Carmen Inda, José María Delgado-García, and Ángel Manuel Carrión
- 2108 **Metabotropic P2Y Purinoceptor-Mediated Presynaptic and Postsynaptic Enhancement of Cerebellar GABAergic Transmission**  
Fumihito Saitow, Takayuki Murakoshi, Hidenori Suzuki, and Shiro Konishi

#### DEVELOPMENT/PLASTICITY/REPAIR

- 1894  **$\beta$ 1,3-N-Acetylglucosaminyltransferase 1 Glycosylation Is Required for Axon Pathfinding by Olfactory Sensory Neurons**  
Timothy R. Henion, Denitza Raitcheva, Robert Grosholz, Franziska Biellmann, William C. Skarnes, Thierry Hennet, and Gerald A. Schwarting
- 2010 **Differential Postnatal Maturation of GABA<sub>A</sub>, Glycine Receptor, and Mixed Synaptic Currents in Renshaw Cells and Ventral Spinal Interneurons**  
David González-Forero and Francisco J. Alvarez
- 2062 **Theta Stimulation Polymerizes Actin in Dendritic Spines of Hippocampus**  
Bin Lin, Enikő A. Kramár, Xiaoning Bi, Fernando A. Brucher, Christine M. Gall, and Gary Lynch
- 2081 **Polysialylated Neural Cell Adhesion Molecule Is Necessary for Selective Targeting of Regenerating Motor Neurons**  
Colin K. Franz, Urs Rutishauser, and Victor F. Rafuse
- 2146 **Control of Synaptic Connection by Glutamate Receptor  $\delta$ 2 in the Adult Cerebellum**  
Tomonori Takeuchi, Taisuke Miyazaki, Masahiko Watanabe, Hisashi Mori, Kenji Sakimura, and Masayoshi Mishina

#### BEHAVIORAL/SYSTEMS/COGNITIVE

- 1924 **Tonotopic Specialization of Auditory Coincidence Detection in Nucleus Laminaris of the Chick**  
Hiroshi Kuba, Rei Yamada, Iwao Fukui, and Harunori Ohmori
- 1935 **Memory Reconsolidation Engages Only a Subset of Immediate-Early Genes Induced during Consolidation**  
Laura S. J. von Herten and K. Peter Giese
- 1952 **The HVC Microcircuit: The Synaptic Basis for Interactions between Song Motor and Vocal Plasticity Pathways**  
Richard Mooney and Jonathan F. Prather
- 1965 **Respiratory Rhythm Entrainment by Somatic Afferent Stimulation**  
Jeffrey T. Potts, Ilya A. Rybak, and Julian F. R. Paton
- 1985 **Locus Ceruleus Activation Suppresses Feedforward Interneurons and Reduces  $\beta$ - $\gamma$  Electroencephalogram Frequencies While It Enhances  $\theta$  Frequencies in Rat Dentate Gyrus**  
Robert A. M. Brown, Susan G. Walling, J. Steve Milway, and Carolyn W. Harley
- 2032 **Medial Septal GABAergic Neurons Express the Somatostatin sst<sub>2A</sub> Receptor: Functional Consequences on Unit Firing and Hippocampal Theta**  
Marie-Hélène Bassant, Axelle Simon, Frédérique Poindessous-Jazat, Zsolt Csaba, Jacques Epelbaum, and Pascal Dournaud

- 2092 **Rhythmic Bursting in the Cortico-Subthalamo-Pallidal Network during Spontaneous Genetically Determined Spike and Wave Discharges**  
Jeanne Tamar Paz, Jean-Michel Deniau, and Stéphane Charpier
- 2117 **Retinotopic Axis Specificity and Selective Clustering of Feedback Projections from V2 to V1 in the Owl Monkey**  
Amir Shmuel, Maria Korman, Anna Sterkin, Michal Harel, Shimon Ullman, Rafael Malach, and Amiram Grinvald
- 2138 **Impaired Synaptic Plasticity and Learning in Mice Lacking  $\beta$ -Adducin, an Actin-Regulating Protein**  
Rebecca L. Rabenstein, Nii A. Addy, Barbara J. Caldarone, Yukiko Asaka, Lore M. Gruenbaum, Luanne L. Peters, Diana M. Gilligan, Reiko M. Fitzsimonds, and Marina R. Picciotto

#### NEUROBIOLOGY OF DISEASE

- 1904 **Prevention of Alzheimer's Disease Pathology by Cannabinoids: Neuroprotection Mediated by Blockade of Microglial Activation**  
Belén G. Ramírez, Cristina Blázquez, Teresa Gómez del Pulgar, Manuel Guzmán, and María L. de Ceballos
- 1943 **Antiepileptic Effects of Botulinum Neurotoxin E**  
Laura Costantin, Yuri Bozzi, Cristina Richichi, Alessandro Viegi, Flavia Antonucci, Marcella Funicello, Marco Gobbi, Tiziana Mennini, Ornella Rossetto, Cesare Montecucco, Lamberto Maffei, Annamaria Vezzani, and Matteo Caleo
- 2002 **Parkin Mediates Nonclassical, Proteasomal-Independent Ubiquitination of Synphilin-1: Implications for Lewy Body Formation**  
Kah Leong Lim, Katherine C. M. Chew, Jeanne M. M. Tan, Cheng Wang, Kenny K. K. Chung, Yi Zhang, Yuji Tanaka, Wanli Smith, Simone Engelender, Christopher A. Ross, Valina L. Dawson, and Ted M. Dawson
- 2157 **D<sub>2</sub> Dopamine Receptors Colocalize Regulator of G-Protein Signaling 9-2 (RGS9-2) via the RGS9 DEP Domain, and RGS9 Knock-Out Mice Develop Dyskinesias Associated with Dopamine Pathways**  
Abraham Kovoov, Petra Seyffarth, Jana Ebert, Sami Barghshoon, Ching-Kang Chen, Sigrid Schwarz, Jeffrey D. Axelrod, Benjamin N. R. Cheyette, Melvin I. Simon, Henry A. Lester, and Johannes Schwarz

**Correction:** In the article "Uncoupling Protein-2 Is Critical for Nigral Dopamine Cell Survival in a Mouse Model of Parkinson's Disease," which appeared on pages 184–191 of the January 5, 2005 issue, the name of an author was spelled incorrectly. The fourth author's name should have read John Elsworth.

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