

The Journal of Neuroscience

December 1, 2004 • Volume 24 Number 48 www.jneurosci.org



Cover picture: 5-Hydroxytryptamine (5-HT; red) and tyrosine hydroxylase (TH; green) expression in the rat cervical spinal cord 4 weeks after transection of the left dorsal roots. 5-HT and TH expression is elevated on the rhizotomized side, indicative of deafferentation-induced sprouting. An inhibitor of Rho-kinase (Y-27632) accelerates the sprouting response as well as recovery from cold hyperalgesia that develops after selective rhizotomy of the C7 and C8 roots. For details, see the article by Ramer et al. in this issue (pages 10796–10805).

i This Week in The Journal

Brief Communications

- 10918 **N-Cadherin Juxtamembrane Domain Modulates Voltage-Gated Ca^{2+} Current via RhoA GTPase and Rho-Associated Kinase**
Giuseppe Piccoli, Urs Rutishauser, and Juan L. Brusés
- 10993 **Chronic Exposure to Rotenone Models Sporadic Parkinson's Disease in *Drosophila melanogaster***
Hélène Coulom and Serge Birman

Articles

CELLULAR/MOLECULAR

- 10826 **Mapping Netrin Receptor Binding Reveals Domains of Unc5 Regulating Its Tyrosine Phosphorylation**
Robert P. Kruger, Jeeyong Lee, Wei-quan Li, and Kun-Liang Guan
- 10835 **Direct Excitation of Inhibitory Interneurons by Extracellular ATP Mediated by P2Y_1 Receptors in the Hippocampal Slice**
Masahito Kawamura, Christian Gachet, Kazuhide Inoue, and Fusao Kato
- 10858 **Nuclear Calcium/Calmodulin Regulates Memory Consolidation**
Klara Limbäck-Stokin, Edward Korzus, Rie Nagaoka-Yasuda, and Mark Mayford
- 10878 **Strong Calcium Entry Activates Mitochondrial Superoxide Generation, Upregulating Kinase Signaling in Hippocampal Neurons**
Jarin Hongpaisan, Christine A. Winters, and S. Brian Andrews
- 10900 **Enhanced Inhibitory Synaptic Transmission in the Cerebellar Molecular Layer of the $\text{GluR}\delta 2$ Knock-Out Mouse**
Gen Ohtsuki, Shin-ya Kawaguchi, Masayoshi Mishina, and Tomoo Hirano
- 10924 **Single-Channel Behavior of Heteromeric $\alpha 1\beta$ Glycine Receptors: An Attempt to Detect a Conformational Change before the Channel Opens**
Valeria Burzomato, Marco Beato, Paul J. Groot-Kormelink, David Colquhoun, and Lucia G. Sivilotti
- 10950 **Frequency-Dependent Modulation of Retinogeniculate Transmission by Serotonin**
Daniel P. Seeburg, Xiaojin Liu, and Chnfei Chen

- 10980 **Phosphatidylinositol 4,5-Bisphosphate Signals Underlie Receptor-Specific $G_{q/11}$ -Mediated Modulation of N-Type Ca^{2+} Channels**
Nikita Gamper, Vitaliy Reznikov, Yoichi Yamada, Jian Yang, and Mark S. Shapiro

DEVELOPMENT/PLASTICITY/REPAIR

- 10786 **The Generation of Dopaminergic Neurons by Human Neural Stem Cells Is Enhanced by Bcl-X_L, Both *In Vitro* and *In Vivo***
Isabel Liste, Elisa García-García, and Alberto Martínez-Serrano
- 10806 **Cellular Mechanisms Associated with Spontaneous and Ciliary Neurotrophic Factor-cAMP-Induced Survival and Axonal Regeneration of Adult Retinal Ganglion Cells**
Kevin Park, Jian-Min Luo, Susan Hisheh, Alan R. Harvey, and Qi Cui
- 10816 **The Mental Retardation Protein PAK3 Contributes to Synapse Formation and Plasticity in Hippocampus**
Bernadett Boda, Stefano Alberi, Irina Nikonenko, Roxanne Node-Langlois, Pascal Jourdain, Marlyse Moosmayer, Lorena Parisi-Jourdain, and Dominique Muller
- 10888 **Isolation of a Novel Platelet-Derived Growth Factor-Responsive Precursor from the Embryonic Ventral Forebrain**
Andrew Chojnacki and Samuel Weiss

BEHAVIORAL/SYSTEMS/COGNITIVE

- 10773 **The Effects of Tonic Locus Ceruleus Output on Sensory-Evoked Responses of Ventral Posterior Medial Thalamic and Barrel Field Cortical Neurons in the Awake Rat**
David M. Devilbiss and Barry D. Waterhouse
- 10796 **Rho-Kinase Inhibition Enhances Axonal Plasticity and Attenuates Cold Hyperalgesia after Dorsal Rhizotomy**
Leanne M. Ramer, Jaimie F. Borisoff, and Matt S. Ramer
- 10846 **A Novel Ca^{2+} -Independent Signaling Pathway to Extracellular Signal-Regulated Protein Kinase by Coactivation of NMDA Receptors and Metabotropic Glutamate Receptor 5 in Neurons**
Lu Yang, Limin Mao, Qingsong Tang, Shazia Samdani, Zhenguo Liu, and John Q. Wang
- 10868 **Medial Hypothalamic 5-Hydroxytryptamine (5-HT)_{1A} Receptors Regulate Neuroendocrine Responses to Stress and Exploratory Locomotor Activity: Application of Recombinant Adenovirus Containing 5-HT_{1A} Sequences**
Qian Li, Andrew Holmes, Li Ma, Louis D. Van de Kar, Francisca Garcia, and Dennis L. Murphy
- 10941 **The Neural Mechanisms for Minimizing Cross-Modal Distraction**
D. H. Weissman, L. M. Warner, and M. G. Woldorff
- 10974 **Acid-Induced Pain and Its Modulation in Humans**
Nicholas G. Jones, Rebecca Slater, Herve Cadiou, Peter McNaughton, and Stephen B. McMahon

NEUROBIOLOGY OF DISEASE

- 10908 **Peroxisome Proliferator-Activated Receptor γ Induces a Clearance Mechanism for the Amyloid- β Peptide**
Ira Espuny Camacho, Lutgarde Serneels, Kurt Spittaels, Pascal Merchiers, Diana Dominguez, and Bart De Strooper

10963 **Apoptosis-Inducing Factor Substitutes for Caspase Executioners in NMDA-Triggered Excitotoxic Neuronal Death**

Hongmin Wang, Seong-Woon Yu, David W. Koh, Jasmine Lew, Carmen Coombs, William Bowers, Howard J. Federoff, Guy G. Poirier, Ted M. Dawson, and Valina L. Dawson

Correction: In the article “Postnatal Neurogenesis and Gliogenesis in the Olfactory Bulb from NG2-Expressing Progenitors of the Subventricular Zone,” by Adan Aguirre and Vittorio Gallo, which appeared on pages 10530–10541 of the November 17, 2004 issue, the authors have been informed that a series of tests performed by The Jackson Laboratory (Bar Harbor, ME) have shown that the fluorescent protein in mouse strain Tg(ActbEYFP)1nagyl/J (stock #003772) is not yellow fluorescent protein (YFP), as originally reported, but rather green fluorescent protein (GFP). Therefore, EYFP should read EGFP throughout the article. The authors want to emphasize that this change in the reporter gene does not affect the interpretation and conclusions of their experiment.

Persons interested in becoming members of the Society for Neuroscience should contact the Membership Department, Society for Neuroscience, 11 Dupont Circle, NW, Suite 500, Washington, DC 20036, phone 202-462-6688.

Instructions for Authors are available at <http://www.jneurosci.org/misc/itoa.shtml>. Authors should refer to these Instructions online for recent changes that are made periodically.

Brief Communications Instructions for Authors are available via Internet (<http://www.sfn.org/content/Publications/TheJournalofNeuroscience/BriefComm/ifa.html>).

Submissions should be submitted online using the following url: <http://sfn.manuscriptcentral.com>. Please contact the Central Office, via phone, fax, or e-mail with any questions. Our contact information is as follows: phone, 202-462-6688; fax, 202-462-1547; e-mail, jn@sfn.org.