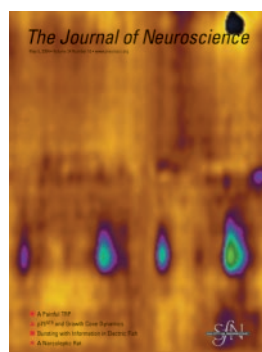


The Journal of Neuroscience

May 5, 2004 • Volume 24 Number 18 www.jneurosci.org



Cover picture: Color plot of dopamine release oscillations on a millisecond timescale from the nucleus accumbens of a freely moving rat, obtained after injection of a cannabinoid agonist administered at a dose that promotes burst firing of dopaminergic neurons. The pseudocolor scale indicates oxidation (green) and reduction (black) currents at potentials (y-axis) specific to dopamine at the surface of a carbon-fiber microelectrode plotted against time (x-axis). Subsecond time resolution of release events was achieved using fast-scan cyclic voltammetry. For details, see the article by Cheer et al. in this issue (pages 4393–4400).

i This Week in The Journal

Articles

CELLULAR/MOLECULAR

- 4293 Proteinase-Activated Receptor 2-Mediated Potentiation of Transient Receptor Potential Vanilloid Subfamily 1 Activity Reveals a Mechanism for Proteinase-Induced Inflammatory Pain**
Yi Dai, Tomoko Moriyama, Tomohiro Higashi, Kazuya Togashi, Kimiko Kobayashi, Hiroki Yamanaka, Makoto Tominaga, and Koichi Noguchi
- 4300 Protease-Activated Receptor 2 Sensitizes the Capsaicin Receptor Transient Receptor Potential Vanilloid Receptor 1 to Induce Hyperalgesia**
Silvia Amadesi, Jingjiang Nie, Nathalie Vergnolle, Graeme S. Cottrell, Eileen F. Grady, Marcello Trevisani, Chiara Manni, Pierangelo Geppetti, James A. McRoberts, Helena Ennes, John B. Davis, Emeran A. Mayer, and Nigel W. Bunnett
- 4313 Four Classes of Intercellular Channels between Glial Cells in the CNS**
Bruce M. Altevogt and David L. Paul
- 4324 Mitogen- and Stress-Activated Protein Kinase 1 Mediates cAMP Response Element-Binding Protein Phosphorylation and Activation by Neurotrophins**
J. Simon C. Arthur, Amy L. Fong, Jami M. Dwyer, Monika Davare, Ed Reese, Karl Obrietan, and Soren Impey
- 4340 Brain-Derived Neurotrophic Factor and trkB Signaling in Parasympathetic Neurons: Relevance to Regulating $\alpha 7$ -Containing Nicotinic Receptors and Synaptic Function**
Xiangdong Zhou, Qiang Nai, Min Chen, Jason D. Dittus, Marthe J. Howard, and Joseph F. Margiotta
- 4382 Interplay between Local GABAergic Interneurons and Relay Neurons Generates γ Oscillations in the Rat Olfactory Bulb**
Samuel Lagier, Alan Carleton, and Pierre-Marie Lledo
- 4401 Variant Brain-Derived Neurotrophic Factor (BDNF) (Met66) Alters the Intracellular Trafficking and Activity-Dependent Secretion of Wild-Type BDNF in Neurosecretory Cells and Cortical Neurons**
Zhe-Yu Chen, Paresh D. Patel, Gayatree Sant, Chui-Xiang Meng, Kenneth K. Teng, Barbara L. Hempstead, and Francis S. Lee
- 4421 p35/Cyclin-Dependent Kinase 5 Phosphorylation of Ras Guanine Nucleotide Releasing Factor 2 (RasGRF2) Mediates Rac-Dependent Extracellular Signal-Regulated Kinase 1/2 Activity, Altering RasGRF2 and Microtubule-Associated Protein 1b Distribution in Neurons**
Sashi Kesavapany, Niranjana Amin, Ya-Li Zheng, Ruchika Nijhara, Howard Jaffe, Ram Sihag, J. Silvio Gutkind, Satoru Takahashi, Ashok Kulkarni, Philip Grant, and Harish C. Pant

- 4444 **Transient Receptor Potential Vanilloid 4 Is Essential in Chemotherapy-Induced Neuropathic Pain in the Rat**
Nicole Alessandri-Haber, Olayinka A. Dina, Jenny J. Yeh, Carlos A. Parada, David B. Reichling, and Jon D. Levine

DEVELOPMENT/PLASTICITY/REPAIR

- 4333 **CD4-Positive T Cell-Mediated Neuroprotection Requires Dual Compartment Antigen Presentation**
Susanna C. Byram, Monica J. Carson, Cynthia A. DeBoy, Craig J. Serpe, Virginia M. Sanders, and Kathryn J. Jones
- 4363 **p75 Neurotrophin Receptor Signaling Regulates Growth Cone Filopodial Dynamics through Modulating RhoA Activity**
Scott Gehler, Gianluca Gallo, Eric Veien, and Paul C. Letourneau
- 4412 **Glutamate Receptor-Mediated Oligodendrocyte Toxicity in Periventricular Leukomalacia: A Protective Role for Topiramate**
Pamela L. Follett, Wenbin Deng, Weimin Dai, Delia M. Talos, Leon J. Massillon, Paul A. Rosenberg, Joseph J. Volpe, and Frances E. Jensen
- 4432 **Conditioning Injury-Induced Spinal Axon Regeneration Fails in Interleukin-6 Knock-Out Mice**
William B. J. Cafferty, Natalie J. Gardiner, Partha Das, Jin Qiu, Stephen B. McMahon, and Stephen W. N. Thompson

BEHAVIORAL/SYSTEMS/COGNITIVE

- 4351 **Parallel Processing of Sensory Input by Bursts and Isolated Spikes**
Anne-Marie M. Oswald, Maurice J. Chacron, Brent Doiron, Joseph Bastian, and Leonard Maler
- 4373 **Memory Impairment in Aged Primates Is Associated with Focal Death of Cortical Neurons and Atrophy of Subcortical Neurons**
David E. Smith, Peter R. Rapp, Heather M. McKay, Jeffrey A. Roberts, and Mark H. Tuszynski
- 4393 **Cannabinoids Enhance Subsecond Dopamine Release in the Nucleus Accumbens of Awake Rats**
Joseph F. Cheer, Kate M. Wassum, Michael L. A. V. Heien, Paul E. M. Phillips, and R. Mark Wightman
- 4453 **Behavioral Context and Coherent Oscillations in the Supplementary Motor Area**
Daeyeol Lee
- 4460 **Learning at Different Satiation Levels Reveals Parallel Functions for the cAMP-Protein Kinase A Cascade in Formation of Long-Term Memory**
Anke Friedrich, Ulf Thomas, and Uli Müller

NEUROBIOLOGY OF DISEASE

- 4469 **Expression of a Poly-Glutamine-Ataxin-3 Transgene in Orexin Neurons Induces Narcolepsy-Cataplexy in the Rat**
Carsten T. Beuckmann, Christopher M. Sinton, S. Clay Williams, James A. Richardson, Robert E. Hammer, Takeshi Sakurai, and Masashi Yanagisawa
- 4478 **Changes in Intracellular Chloride after Oxygen-Glucose Deprivation of the Adult Hippocampal Slice: Effect of Diazepam**
Francesca Galeffi, Renu Sah, Brooks B. Pond, Amanda George, and Rochelle D. Schwartz-Bloom

4489 *Erratum:* In the article “Arthropod 5-HT₂ Receptors: A Neurohormonal Receptor in Decapod Crustaceans That Displays Agonist Independent Activity Resulting from an Evolutionary Alteration to the DRY Motif,” by Merry C. Clark, Timothy E. Dever, John J. Dever, Ping Xu, Vincent Rehder, Maria A. Sosa, and Deborah J. Baro, which appeared on pages 3421–3435 of the March 31, 2004 issue, errors in Tables 1 and 2 were introduced by the printer. The correct version of each table is printed in this issue.

Correction: In the article “Critical Role for DP5/Harakiri, a Bcl-2 Homology Domain 3-Only Bcl-2 Family Member, in Axotomy-Induced Neuronal Cell Death,” which appeared on pages 3721–3725 of the April 14, 2004 issue, the name of an author was spelled incorrectly. The sixth author’s name should have read Andrew P. Lieberman.

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.