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Cover picture: The spatiotemporal evolution of perfusion-related functional imaging signals demonstrates etiology-dependent differences.
Cerebral blood volume (CBV) signals (top four images) center on activated pial arterioles and evolve with spatial similarity across time and graded stimulation.
Oxygenation responses (bottom four images) originate in the capillary bed and metamorphose into large draining veins. Understanding the differences between these responses, in terms of both spatiotemporal profile and their relationship to underlying neuronal activity, will influence the development and interpretation of functional brainmapping strategies. For details, see the article by Nemoto et al. in this issue (pages 3850 –3861).

i This Week in The Journal

#### **Brief Communications**

3721 Critical Role for DP5/Harakiri, a Bcl-2 Homology Domain 3-Only Bcl-2 Family Member, in Axotomy-Induced Neuronal Cell Death
Kazunori Imaizumi, Adalberto Benito, Sumiko Kiryu-Seo, Victor Gonzalez,
Naohiro Inohara, Andrew P. Leiberman, Hiroshi Kiyama, and Gabriel Nuñez

## **Articles**

#### CELLULAR/MOLECULAR

- 3746 Alcohol Enhances GABAergic Transmission to Cerebellar Granule Cells via an Increase in Golgi Cell Excitability
  Mario Carta, Manuel Mameli, and C. Fernando Valenzuela
- 3770 Endoplasmic Reticulum Export Site Formation and Function in Dendrites Meir Aridor, Amy K. Guzik, Anna Bielli, and Kenneth N. Fish

Alex MacKenzie, Marcel Ferrer-Alcon, and Ann C. Kato

- Motoneuron Resistance to Apoptotic Cell Death In Vivo Correlates with the Ratio between
   X-Linked Inhibitor of Apoptosis Proteins (XIAPs) and Its Inhibitor, XIAP-Associated
   Factor 1
   Daniel Perrelet, Florence E. Perrin, Peter Liston, Robert G. Korneluk,
- 3786 Regulation of Axonal Extension and Growth Cone Motility by Calmodulin-Dependent Protein Kinase I

Gary A. Wayman, Stefanie Kaech, Wilmon F. Grant, Monika Davare, Soren Impey, Hiroshi Tokumitsu, Naohito Nozaki, Gary Banker, and Thomas R. Soderling

3879 Defining a Molecular Atlas of the Hippocampus Using DNA Microarrays and High-Throughput *In Situ* Hybridization Ed S. Lein, Xinyu Zhao, and Fred H. Gage

### DEVELOPMENT/PLASTICITY/REPAIR

3762 The Role of the Theta Isoform of Protein Kinase C (PKC) in Activity-Dependent Synapse Elimination: Evidence from the PKC Theta Knock-Out Mouse *In Vivo* and *In Vitro* 

Min-Xu Li, Min Jia, Li-Xia Yang, Hao Jiang, Maria A. Lanuza, Carmen M. Gonzalez, and Phillip G. Nelson

3816 Lipid Rafts and Integrin Activation Regulate Oligodendrocyte Survival Laurence Decker and Charles ffrench-Constant

3862 The Repulsive Guidance Molecule RGMa Is Involved in the Formation of Afferent Connections in the Dentate Gyrus

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3890 Dysmyelinated Lower Motor Neurons Retract and Regenerate Dysfunctional **Synaptic Terminals** 

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#### BEHAVIORAL/SYSTEMS/COGNITIVE

- Information Tuning of Populations of Neurons in Primary Visual Cortex Kukjin Kang, Robert M. Shapley, and Haim Sompolinsky
- 3736 The Classical Receptive Field Surround of Primate Parasol Ganglion Cells Is Mediated Primarily by a Non-GABAergic Pathway Matthew J. McMahon, Orin S. Packer, and Dennis M. Dacey
- 3795 Convergence of Depth from Texture and Depth from Disparity in Macaque Inferior **Temporal Cortex**

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3810 Role of the Basolateral Amygdala in the Storage of Fear Memories across the Adult Lifetime of Rats

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- 3826 Corticohippocampal Contributions to Spatial and Contextual Learning Rebecca D. Burwell, Michael P. Saddoris, David J. Bucci, and Kjesten A. Wiig
- 3850 Functional Signal- and Paradigm-Dependent Linear Relationships between Synaptic Activity and Hemodynamic Responses in Rat Somatosensory Cortex Masahito Nemoto, Sameer Sheth, Michael Guiou, Nader Pouratian, James W. Y. Chen, and Arthur W. Toga
- Cognitive Aging and the Hippocampus: How Old Rats Represent New Environments Iain A. Wilson, Sami Ikonen, Irina Gureviciene, Robert W. McMahan, Michela Gallagher, Howard Eichenbaum, and Heikki Tanila

#### NEUROBIOLOGY OF DISEASE

- Passive or Active Immunization with Myelin Basic Protein Impairs Neurological Function and Exacerbates Neuropathology after Spinal Cord Injury in Rats T. Bucky Jones, Daniel P. Ankeny, Zhen Guan, Violeta McGaughy, Lesley C. Fisher, D. Michele Basso, and Phillip G. Popovich
- Dimeric Amyloid  $\beta$  Protein Rapidly Accumulates in Lipid Rafts followed by 3801 Apolipoprotein E and Phosphorylated Tau Accumulation in the Tg2576 Mouse Model of Alzheimer's Disease

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3837 Sequential Release of GABA by Exocytosis and Reversed Uptake Leads to Neuronal Swelling in Simulated Ischemia of Hippocampal Slices Nicola J. Allen, David J. Rossi, and David Attwell

*Erratum:* In the article "Linkage of the Actin Cytoskeleton to the Postsynaptic Density via Direct Interactions of Abp1 with the ProSAP/Shank Family," by Britta Qualmann, Tobias M. Boeckers, Monika Jeromin, Eckart D. Gundelfinger, and Michael M. Kessels, which appeared on pages 2481–2495 of the March 10, 2004 issue, the second sentence in the acknowledgments footnote was erroneously changed by the printer. This funding statement should read "E.D.G. was supported by grants from the Fonds der Chemischen Industrie and European Commission Grant QLG3-CT-2001-01181."

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