Cover legend: Confocal immunofluorescence image of a whole-mount of bullfrog sacculus, depicting the localization of myosin IIIa at the tips of the stereocilia. The image reveals the thimble-like pattern of the protein (yellow), surrounding the actin core (blue).

For more information, see the article by Schneider et al. in the October 4, 2006 issue (pages 10243–10252).

This Week in The Journal

Journal Club

12385 Rat Whisker Psychophysics
   Vivek Khatri and Raddy Ramos

Brief Communications

12466 Disruption of Primary Motor Cortex before Learning Impairs Memory of Movement Dynamics
   Andrew G. Richardson, Simon A. Overduin, Antoni Valero-Cabré, Camillo Padoa-Schioppa, Alvaro Pascual-Leone, Emilio Bizzi, and Daniel Z. Press

Articles

CELLULAR/MOLECULAR

12397 CD47 Promotes Neuronal Development through Src- and FRG/Vav2-Mediated Activation of Rac and Cdc42
   Takaaki Murata, Hiroshi Ohnishi, Hideki Okazawa, Yoji Murata, Shinya Kusakari, Yuriko Hayashi, Motoaki Miyashita, Hiroshi Itoh, Per-Arne Oldenborg, Nobuhiko Furuya, and Takashi Matozaki

12427 p38 Mitogen-Activated Protein Kinase Contributes to Adenosine A1 Receptor-Mediated Synaptic Depression in Area CA1 of the Rat Hippocampus
   Tyson B. Brust, Francisco S. Cayabyab, Ning Zhou, and Brian A. MacVicar

12487 Release Probability-Dependent Scaling of the Postsynaptic Responses at Single Hippocampal GABAergic Synapses
   Agota A. Biro, Noémi B. Holdérith, and Zoltan Nusser

12526 Steady-State Adaptation of Mechanotransduction Modulates the Resting Potential of Auditory Hair Cells, Providing an Assay for Endolymph [Ca2+]i
   Hamilton E. Farris, Gregg B. Wells, and Anthony J. Ricci

12556 A Gain-of-Function Mutation in Synaptotagmin-1 Reveals a Critical Role of Ca2+-Dependent Soluble N-Ethylmaleimide-Sensitive Factor Attachment Protein Receptor Complex Binding in Synaptic Exocytosis

12566 Na1.7 Mutant A863P in Erythromelalgia: Effects of Altered Activation and Steady-State Inactivation on Excitability of Nociceptive Dorsal Root Ganglion Neurons
12602 **Rapid Activation of Inwardly Rectifying Potassium Channels by Immobile G-Protein-Coupled Receptors**
Robert M. Loher, Miguel A. Pereira, and Nevin A. Lambert

DEVELOPMENT/PLASTICITY/REPAIR

12537 **Operant Conditioning of H-Reflex Can Correct a Locomotor Abnormality after Spinal Cord Injury in Rats**

12620 **Cell-Autonomous β-Catenin Signaling Regulates Cortical Precursor Proliferation**
Gregory J. Woodhead, Christopher A. Mutch, Eric C. Olson, and Anjen Chenn

BEHAVIORAL/SYSTEMS/COGNITIVE

12387 **Rethinking the Fear Circuit: The Central Nucleus of the Amygdala Is Required for the Acquisition, Consolidation, and Expression of Pavlovian Fear Conditioning**
Ann E. Wilensky, Glenn E. Saege, Morten P. Kristensen, and Joseph E. LeDoux

12415 **Hippocampal Sharp Waves and Reactivation during Awake States Depend on Repeated Sequential Experience**
Jadin C. Jackson, Adam Johnson, and A. David Redish

12456 **Insufficient Sleep Reversibly Alters Bidirectional Synaptic Plasticity and NMDA Receptor Function**
Caroline Kopp, Fabio Longordo, Janet R. Nicholson, and Anita Lüthi

12471 **Monkey Dorsolateral Prefrontal Cortex Sends Task-Selective Signals Directly to the Superior Colliculus**
Kevin Johnston and Stefan Everling

12479 **Directional Cuing of Target Choice in Human Smooth Pursuit Eye Movements**
Siobhan Garbutt and Stephen G. Lisberger

12512 **Contribution of TPMS8 Channels to Cold Transduction in Primary Sensory Neurons and Peripheral Nerve Terminals**
Rodolfo Madrid, Tansy Donovan-Rodríguez, Victor Meseguer, Mari Carmen Acosta, Carlos Belmonte, and Félix Viana

12587 **Distinct Patterns of Striatal Medium Spiny Neuron Activity during the Natural Sleep–Wake Cycle**
Séverine Mahon, Nicolas Vautrelle, Laurent Pezard, Séan J. Slaght, Jean-Michel Demiau, Guy Chouvet, and Stéphane Chartier

12596 **Neural Coding of Tactile Decisions in the Human Prefrontal Cortex**

NEUROBIOLOGY OF DISEASE

12408 **Accelerated Accumulation of Misfolded Prion Protein and Spongiform Degeneration in a Drosophila Model of Gerstmann–Sträussler–Scheinker Syndrome**
Brendan A. Gavin, Maria J. Dolph, Nathan R. Deleault, James C. Geoghegan, Vikram Khurana, Mel B. Feny, Patrick J. Dolph, and Surachai Suppattapone

12439 **Human Vascular Endothelial Growth Factor Protects Axotomized Retinal Ganglion Cells In Vivo by Activating ERK-1/2 and Akt Pathways**
Utkan Kilic, Ertugrul Kilic, Anne Järve, Zeyun Guo, Annett Spudich, Katja Bieber, Uxue Barzena, Claudio L. Bassetti, Hugo H. Marti, and Dirk M. Hermann
Corrections: The order of the two equations appearing in the article “Sparse Representation in the Human Medial Temporal Lobe” by Stephen Waydo, Alexander Kraskov, Rodrigo Quian Quiroga, Itzhak Fried, and Christof Koch, which appears on pages 10232–10234 of the October 4, 2006 issue, were switched. The first equation should have appeared where the second is, and the second where the first is.