

# The Journal of Neuroscience

October 29, 2008 • Volume 28 Number 44 www.jneurosci.org



**Cover legend:** An autostereogram that depicts two 3D views of the human brain (one lateral, the other medial). Diverging the eyes to view the image reveals two large brains in the center of the page—one protruding and the other indented. The columns of small colored brains provide the stereogram's texture and depict a dorsal-to-posterior succession of views. The orange activity "blobs" on these brains show results from a "searchlight" classification method that reveals strong selectivity for crossed (near) versus uncrossed (far) binocular disparities in dorsal visual areas. For more information, see the article by Preston et al. in this issue (pages 11315–11327).

## i This Week in The Journal

### Commentary

- 11103 **Promise and Pitfalls of Extending Google's PageRank Algorithm to Citation Networks**  
Sergei Maslov and Sidney Redner

### Brief Communications

- 11106 **Parietal Stimulation Decouples Spatial and Feature-Based Attention**  
Bertram Schenkluhn, Christian C. Ruff, Klaartje Heinen, and Christopher D. Chambers
- 11263 **Up-Regulation of P2X<sub>4</sub> Receptors in Spinal Microglia after Peripheral Nerve Injury Mediates BDNF Release and Neuropathic Pain**  
Lauriane Ulmann, Jon P. Hatcher, Jane P. Hughes, Séverine Chaumont, Paula J. Green, François Conquet, Gary N. Buell, Alison J. Reeve, Iain P. Chessell, and François Rassendren
- 11328 **Motion Adaptation Enhances Object-Induced Neural Activity in Three-Dimensional Virtual Environment**  
Pei Liang, Roland Kern, and Martin Egelhaaf
- 11354 **Monoamine Oxidase A Genotype Predicts Human Serotonin 1A Receptor Availability *In Vivo***  
Brian J. Mickey, Francesca Ducci, Colin A. Hodgkinson, Scott A. Langenecker, David Goldman, and Jon-Kar Zubieta

### Articles

#### CELLULAR/MOLECULAR

- 11131 **Opposite Effects of Zinc on Human and Rat P2X<sub>2</sub> Receptors**  
Rachel K. Tittle and Richard I. Hume
- 11186 **Firing-Pattern-Dependent Specificity of Cortical Excitatory Feed-Forward Subnetworks**  
Takeshi Otsuka and Yasuo Kawaguchi
- 11240 **Inhibition of M Current in Sensory Neurons by Exogenous Proteases: A Signaling Pathway Mediating Inflammatory Nociception**  
John E. Linley, Kirstin Rose, Mayur Patil, Brian Robertson, Armen N. Akopian, and Nikita Gamper
- 11269 **MAGI-1, A Candidate Stereociliary Scaffolding Protein, Associates with the Tip-Link Component Cadherin 23**  
Zhigang Xu, Anthony W. Peng, Kazuo Oshima, and Stefan Heller
- 11333 **The Role of MAP1A Light Chain 2 in Synaptic Surface Retention of Ca<sub>v</sub>2.2 Channels in Hippocampal Neurons**  
A. G. Miriam Leenders, Lin Lin, Li-Dong Huang, Claudia Gerwin, Pei-Hua Lu, and Zu-Hang Sheng

#### DEVELOPMENT/PLASTICITY/REPAIR

- 11111 **Formin-Dependent Synaptic Growth: Evidence That Dlar Signals via Diaphanous to Modulate Synaptic Actin and Dynamic Pioneer Microtubules**  
Catherine Pawson, Benjamin A. Eaton, and Graeme W. Davis
- 11292 **Conditional Deletion of the *Itgb4* Integrin Gene in Schwann Cells Leads to Delayed Peripheral Nerve Regeneration**  
Catharina E. E. M. Van der Zee, Maaïke Kreft, Gaby Beckers, Arthur Kuipers, and Arnoud Sonnenberg
- 11391 **Cell Death after Spinal Cord Injury Is Exacerbated by Rapid TNF $\alpha$ -Induced Trafficking of GluR2-Lacking AMPARs to the Plasma Membrane**  
Adam R. Ferguson, Randolph N. Christensen, John C. Gensel, Brandon, A. Miller, Fang Sun, Eric C. Beattie, Jacqueline C. Bresnahan, and Michael S. Beattie
- 11409 **Requirement of 3-Phosphoinositide-Dependent Protein Kinase-1 for BDNF-Mediated Neuronal Survival**  
Giorgi Kharebava, Denys Makonchuk, Katarzyna B. Kalita, Jing-Juan Zheng, and Michal Hetman

#### BEHAVIORAL/SYSTEMS/COGNITIVE

- 11124 **Double Dissociation of the Effects of Medial and Orbital Prefrontal Cortical Lesions on Attentional and Affective Shifts in Mice**  
Gregory B. Bissonette, Gabriela J. Martins, Theresa M. Franz, Elizabeth S. Harper, Geoffrey Schoenbaum, and Elizabeth M. Powell
- 11153 **Rapid Changes in Thalamic Firing Synchrony during Repetitive Whisker Stimulation**  
Simona Temereanca, Emery N. Brown, and Daniel J. Simons
- 11165 **CNS Learns Stable, Accurate, and Efficient Movements Using a Simple Algorithm**  
David W. Franklin, Etienne Burdet, Keng Peng Tee, Rieko Osu, Chee-Meng Chew, Theodore E. Milner, and Mitsuo Kawato
- 11174 **Excitatory Local Connections of Superficial Neurons in Rat Auditory Cortex**  
Dennis L. Barbour and Edward M. Callaway
- 11196 **Neural Substrates for Reversing Stimulus–Outcome and Stimulus–Response Associations**  
Gui Xue, Dara G. Ghahremani, and Russell A. Poldrack
- 11205 **Vibrissa Sensation in Superior Colliculus: Wide-Field Sensitivity and State-Dependent Cortical Feedback**  
Jeremy D. Cohen, Akio Hirata, and Manuel A. Castro-Alamancos
- 11221 **A Dopaminergic Axon Lattice in the Striatum and Its Relationship with Cortical and Thalamic Terminals**  
Jonathan Moss and J. Paul Bolam
- 11231 **Executed and Observed Movements Have Different Distributed Representations in Human aIPS**  
Ilan Dinstein, Justin L. Gardner, Mehrdad Jazayeri, and David J. Heeger
- 11250 **Unmasking the CA1 Ensemble Place Code by Exposures to Small and Large Environments: More Place Cells and Multiple, Irregularly Arranged, and Expanded Place Fields in the Larger Space**  
André A. Fenton, Hsin-Yi Kao, Samuel A. Neymotin, Andrey Olypher, Yevgeniy Vayntrub, William W. Lytton, and Nandor Ludvig
- 11277 **Y-Cell Receptive Field and Collicular Projection of Parasol Ganglion Cells in Macaque Monkey Retina**  
Joanna D. Crook, Beth B. Peterson, Orin S. Packer, Farrel R. Robinson, John B. Troy, and Dennis M. Dacey
- 11304 **Mechanisms Underlying the Transformation of Disparity Signals from V1 to V2 in the Macaque**  
Seiji Tanabe and Bruce G. Cumming

- 11315 **Multivoxel Pattern Selectivity for Perceptually Relevant Binocular Disparities in the Human Brain**  
Tim J. Preston, Sheng Li, Zoe Kourtzi, and Andrew E. Welchman
- 11347 **Concepts Are More than Percepts: The Case of Action Verbs**  
Marina Bedny, Alfonso Caramazza, Emily Grossman, Alvaro Pascual-Leone, and Rebecca Saxe
- 11360 **On-Line Processing of Uncertain Information in Visuomotor Control**  
Jun Izawa and Reza Shadmehr
- 11369 **Cholinergic Augmentation Modulates Visual Task Performance in Sleep-Deprived Young Adults**  
Lisa Y. M. Chuah and Michael W. L. Chee
- 11378 **Online Contributions of Auditory Feedback to Neural Activity in Avian Song Control Circuitry**  
Jon T. Sakata and Michael S. Brainard
- 11401 **A cAMP Pathway Underlying Reward Prediction in Associative Learning**  
Mazen A. Kheirbek, Jeff A. Beeler, Yoshihiro Ishikawa, and Xiaoxi Zhuang

#### NEUROBIOLOGY OF DISEASE

- 11411 **A Decrease in Anandamide Signaling Contributes to the Maintenance of Cutaneous Mechanical Hyperalgesia in a Model of Bone Cancer Pain**  
Iryna A. Khasabova, Sergey G. Khasabov, Catherine Harding-Rose, Lia G. Coicou, Bryan A. Seybold, Amy E. Lindberg, Christopher D. Steevens, Donald A. Simone, and Virginia S. Seybold
- 11421 **Genetic Dissection of  $\gamma$ -Secretase-Dependent and -Independent Functions of Presenilin in Regulating Neuronal Cell Cycle and Cell Death**  
Verena Kallhoff-Munoz, Lingyun Hu, Xiaoli Chen, Robia G. Pautler, and Hui Zheng

**Corrections:** In the article “*Foxg1* Is Required for Development of the Vertebrate Olfactory System” by Cynthia D. Duggan, Shannon DeMaria, Ariane Baudhuin, David Stafford, and John Ngai, which appeared on pages 5229–5239 of the May 14, 2008 issue, the sequences of some of the *in situ* hybridization probes were incorrectly reported. The correct sequence coordinates from the following genes are: mouse *Foxg1* (bp 1590-1940 and 2100-2710 of NM\_008241), *Sox2* (bp 1505-1882 of X94127), *Sox10* (bp 919–1253 of AF047043); zebrafish *Foxg1* (bp 150-502 of NM\_131067), *OMP* (bp 272-582 of NM\_173281).

In the article “The Statistics of Repeating Patterns of Cortical Activity Can Be Reproduced by a Model Network of Stochastic Binary Neurons” by Alex Roxin, Vincent Hakim, and Nicolas Brunel, which appeared on pages 10734–10745 of the October 15, 2008 issue, there was an error in the denominator of Equation 5. The correct equation is as follows:

$$\hat{p}_i = \frac{v_i - (1 - v_i\tau_r) \sum_j v_j p_{ij}}{1 - v_i\tau_r}. \quad (5)$$

Persons interested in becoming members of the Society for Neuroscience should contact the Membership Department, Society for Neuroscience, 1121 14th St., NW, Suite 1010, Washington, DC 20005, phone 202-962-4000.

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.jneurosci.org/misc/ifa\\_bc.shtml](http://www.jneurosci.org/misc/ifa_bc.shtml)).

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, 202-962-4000; fax, 202-962-4945; e-mail, [jn@sfn.org](mailto:jn@sfn.org).