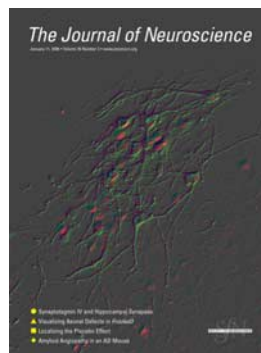


# The Journal of Neuroscience

January 11, 2006 • Volume 26 Number 2 www.jneurosci.org



**Cover picture:** Sodium deprivation increases salt intake and activates a group of aldosterone-sensitive neurons in the brainstem, shown by increased nuclear c-Fos (red). These neurons may represent a central convergence point at which hormonal and neural signals are integrated to drive sodium appetite. For details, see the article by Geerling et al. in this issue (pages 411–417).

## i This Week in The Journal

### Brief Communications

- 406 **Tonic Facilitation of Glutamate Release by Presynaptic NR2B-Containing NMDA Receptors Is Increased in the Entorhinal Cortex of Chronically Epileptic Rats**  
Jian Yang, Gavin L. Woodhall, and Roland S. G. Jones
- 435 **Parietal Cortex Mediates Voluntary Control of Spatial and Nonspatial Auditory Attention**  
Sarah Shomstein and Steven Yantis
- 530 **Late Developmental Stage-Specific Role of Tryptophan Hydroxylase 1 in Brain Serotonin Levels**  
Kazuhiro Nakamura, Yuko Sugawara, Keiko Sawabe, Akiko Ohashi, Hiromichi Tsurui, Yan Xiu, Mareki Ohtsuji, Qing Shun Lin, Hiroyuki Nishimura, Hiroyuki Hasegawa, and Sachiko Hirose
- 559 **Placebo-Induced Changes in Spinal Cord Pain Processing**  
Dagfinn Matre, Kenneth L. Casey, and Stein Knardahl

### Articles

#### CELLULAR/MOLECULAR

- 372 **Synaptotagmin IV Does Not Alter Excitatory Fast Synaptic Transmission or Fusion Pore Kinetics in Mammalian CNS Neurons**  
Jonathan T. Ting, Brooke G. Kelley, and Jane M. Sullivan
- 389 **Late-Onset Leanness in Mice with Targeted Ablation of Melanin Concentrating Hormone Neurons**  
Tamar Alon and Jeffrey M. Friedman
- 479 **Electrical Hyperexcitation of Lateral Ventral Pacemaker Neurons Desynchronizes Downstream Circadian Oscillators in the Fly Circadian Circuit and Induces Multiple Behavioral Periods**  
Michael N. Nitabach, Ying Wu, Vasu Sheeba, William C. Lemon, John Strumbos, Paul K. Zelensky, Benjamin H. White, and Todd C. Holmes
- 518 **Peptidomics of a Single Identified Neuron Reveals Diversity of Multiple Neuropeptides with Convergent Actions on Cellular Excitability**  
Connie R. Jiménez, Sabine Spijker, Simone de Schipper, Johannes C. Lodder, Cornelis Kees Janse, Wijnand P. M. Geraerts, Jan van Minnen, Naweed I. Syed, Alma L. Burlingame, August B. Smit, and KaWan Li

- 573 **Functional Dissection of a Neuronal Network Required for Cuticle Tanning and Wing Expansion in *Drosophila***  
Haojiang Luan, William C. Lemon, Nathan C. Peabody, Jascha B. Pohl, Paul K. Zelensky, Ding Wang, Michael N. Nitabach, Todd C. Holmes, and Benjamin H. White
- 585 **Single Transmembrane Domain Insulin-Like Growth Factor-II/Mannose-6-Phosphate Receptor Regulates Central Cholinergic Function by Activating a G-Protein-Sensitive, Protein Kinase C-Dependent Pathway**  
Cheryl Hawkes, Jack H. Jhamandas, Kim H. Harris, Wen Fu, Richard G. MacDonald, and Satyabrata Kar
- 632 **Different Effects on Fast Exocytosis Induced by Synaptotagmin 1 and 2 Isoforms and Abundance But Not by Phosphorylation**  
Gábor Nagy, Jun Hee Kim, Zhiping P. Pang, Ulf Matti, Jens Rettig, Thomas C. Südhof, and Jakob B. Sørensen
- 655 **Neuromuscular Synapse Formation in Mice Lacking Motor Neuron- and Skeletal Muscle-Derived Neuregulin-1**  
Alexander Jaworski and Steven J. Burden
- 671 **Sodium Currents Activate without a Hodgkin and Huxley-Type Delay in Central Mammalian Neurons**  
Gytis Baranauskas and Marco Martina
- 685 **The Kv2.1 C Terminus Can Autonomously Transfer Kv2.1-Like Phosphorylation-Dependent Localization, Voltage-Dependent Gating, and Muscarinic Modulation to Diverse Kv Channels**  
Durga P. Mohapatra and James S. Trimmer
- 696 **Modulation by Brain Natriuretic Peptide of GABA Receptors on Rat Retinal ON-Type Bipolar Cells**  
Yong-Chun Yu, Li-Hui Cao, and Xiong-Li Yang
- 708 **NMDA Receptors in Layer 4 Spiny Stellate Cells of the Mouse Barrel Cortex Contain the NR2C Subunit**  
Alexander M. Binshtok, Ilya A. Fleidervish, Rolf Sprengel, and Michael J. Gutnick

#### DEVELOPMENT/PLASTICITY/REPAIR

- 355 **Axonal Growth and Guidance Defects in *Frizzled3* Knock-Out Mice: A Comparison of Diffusion Tensor Magnetic Resonance Imaging, Neurofilament Staining, and Genetically Directed Cell Labeling**  
Yanshu Wang, Jiangyang Zhang, Susumu Mori, and Jeremy Nathans
- 508 **Glypican-1 and  $\alpha 4(V)$  Collagen Are Required for Schwann Cell Myelination**  
Michael A. Chernousov, Katrina Rothblum, Richard C. Stahl, Ann Evans, Lisa Prentiss, and David J. Carey
- 542 **Alix, Making a Link between Apoptosis-Linked Gene-2, the Endosomal Sorting Complexes Required for Transport, and Neuronal Death *In Vivo***  
Anne-Laure Mahul-Mellier, Fiona J. Hemming, Béatrice Blot, Sandrine Fraboulet, and Rémy Sadoul
- 550 **Inhibitors of Differentiation and DNA Binding (Ids) Regulate Math1 and Hair Cell Formation during the Development of the Organ of Corti**  
Jennifer M. Jones, Mireille Montcouquiol, Alain Dabdoub, Chad Woods, and Matthew W. Kelley
- 597 **GABAergic Signaling at Mossy Fiber Synapses in Neonatal Rat Hippocampus**  
Victoria F. Safiulina, Giorgia Fattorini, Fiorenzo Conti, and Enrico Cherubini
- 609 **Neurogenesis in the Caudate Nucleus of the Adult Rabbit**  
Federico Luzzati, Silvia De Marchis, Aldo Fasolo, and Paolo Peretto

## BEHAVIORAL/SYSTEMS/COGNITIVE

- 381 **Brain Activity Associated with Expectancy-Enhanced Placebo Analgesia as Measured by Functional Magnetic Resonance Imaging**  
Jian Kong, Randy L. Gollub, Ilana S. Rosman, J. Megan Webb, Mark G. Vangel, Irving Kirsch, and Ted J. Kaptchuk
- 398 **Direct Involvement of Orexinergic Systems in the Activation of the Mesolimbic Dopamine Pathway and Related Behaviors Induced by Morphine**  
Minoru Narita, Yasuyuki Nagumo, Seiko Hashimoto, Michiko Narita, Junaidi Khotib, Mayumi Miyatake, Takeshi Sakurai, Masashi Yanagisawa, Tomoya Nakamachi, Seiji Shioda, and Tsutomu Suzuki
- 411 **Aldosterone Target Neurons in the Nucleus Tractus Solitarius Drive Sodium Appetite**  
Joel C. Geerling, William C. Engeland, Mitsuhiro Kawata, and Arthur D. Loewy
- 448 **Balanced Excitation and Inhibition Determine Spike Timing during Frequency Adaptation**  
Michael J. Higley and Diego Contreras
- 458 **Transcranial Magnetic Stimulation of Frontal Oculomotor Regions during Smooth Pursuit**  
Danny Gagnon, Tomáš Paus, Marie-Hélène Grosbras, G. Bruce Pike, and Gillian A. O'Driscoll
- 490 **Tactile Spatial Attention Enhances Gamma-Band Activity in Somatosensory Cortex and Reduces Low-Frequency Activity in Parieto-Occipital Areas**  
Markus Bauer, Robert Oostenveld, Maarten Peeters, and Pascal Fries
- 502 **The Continuous Wagon Wheel Illusion Is Associated with Changes in Electroencephalogram Power at ~13 Hz**  
Rufin VanRullen, Leila Reddy, and Christof Koch
- 564 **Foveal Visual Strategy during Self-Motion Is Independent of Spatial Attention**  
Min Wei and Dora E. Angelaki
- 622 **Head Direction Cell Representations Maintain Internal Coherence during Conflicting Proximal and Distal Cue Rotations: Comparison with Hippocampal Place Cells**  
D. Yoganasimha, Xintian Yu, and James J. Knierim

## NEUROBIOLOGY OF DISEASE

- 365 **Kinetics of Cerebral Amyloid Angiopathy Progression in a Transgenic Mouse Model of Alzheimer Disease**  
Elissa M. Robbins, Rebecca A. Betensky, Sarah B. Domnitz, Susan M. Purcell, Monica Garcia-Alloza, Charles Greenberg, G. William Rebeck, Bradley T. Hyman, Steven M. Greenberg, Matthew P. Frosch, and Brian J. Bacskai
- 418 **Interaction of the Cytosolic Domains of sorLA/LR11 with the Amyloid Precursor Protein (APP) and  $\beta$ -Secretase  $\beta$ -Site APP-Cleaving Enzyme**  
Robert Spoelgen, Christine A. F. von Arnim, Anne V. Thomas, Ithan D. Peltan, Mirjam Koker, Amy Deng, Michael C. Irizarry, Olav M. Andersen, Thomas E. Willnow, and Bradley T. Hyman
- 429 **Expression of a Familial Alzheimer's Disease-Linked Presenilin-1 Variant Enhances Perforant Pathway Lesion-Induced Neuronal Loss in the Entorhinal Cortex**  
Orly Lazarov, Letia D. Peterson, Daniel A. Peterson, and Sangram S. Sisodia
- 440 **Calpain-Regulated p35/cdk5 Plays a Central Role in Dopaminergic Neuron Death through Modulation of the Transcription Factor Myocyte Enhancer Factor 2**  
Patrice D. Smith, Matthew P. Mount, Raj Shree, Steve Callaghan, Ruth S. Slack, Hymie Anisman, Inez Vincent, Xuemin Wang, Zixu Mao, and David S. Park

- 467 **Compensatory Changes in the Noradrenergic Nervous System in the Locus Ceruleus and Hippocampus of Postmortem Subjects with Alzheimer's Disease and Dementia with Lewy Bodies**  
Patricia Szot, Sylvia S. White, J. Lynne Greenup, James B. Leverenz, Elaine R. Peskind, and Murray A. Raskind
- 535 **Estrogen Prevents Neuroprotection by Caffeine in the Mouse 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine Model of Parkinson's Disease**  
Kui Xu, Yuehang Xu, Deborah Brown-Jermyn, Jiang-Fan Chen, Alberto Ascherio, Dean E. Dluzen, and Michael A. Schwarzschild
- 644 **Impaired Glutamate Transport in a Mouse Model of Tau Pathology in Astrocytes**  
Deepa V. Dabir, Michael B. Robinson, Eric Swanson, Bin Zhang, John Q. Trojanowski, Virginia M.-Y. Lee, and Mark S. Forman
- 662 **Glia as a Therapeutic Target: Selective Suppression of Human Amyloid- $\beta$ -Induced Upregulation of Brain Proinflammatory Cytokine Production Attenuates Neurodegeneration**  
Hantamalala Ralay Ranaivo, Jeffrey M. Craft, Wenhui Hu, Ling Guo, Laura K. Wing, Linda J. Van Eldik, and D. Martin Watterson
- 716 **Enhanced Long-Term Potentiation-Like Plasticity of the Trigeminal Blink Reflex Circuit in Blepharospasm**  
Angelo Quartarone, Antonino Sant'Angelo, Fortunato Battaglia, Sergio Bagnato, Vincenzo Rizzo, Francesca Morgante, John C. Rothwell, Hartwig R. Siebner, and Paolo Girlanda
- 722 **Erratum:** In the article "Organization of the Human Trichromatic Cone Mosaic," by Heidi Hofer, Joseph Carroll, Jay Neitz, Maureen Neitz, and David R. Williams, which appeared on pages 9669–9679 of the October 19, 2005 issue, Figure 6 was a duplicate of Figure 9. The correct versions of both figures are printed in this issue.

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](mailto:jn@sfn.org).