The Journal of Neuroscience

April 2, 2014 • Volume 34 Number 14 • www.jneurosci.org



Cover legend: Confocal micrograph taken from the lesion core of a spinal cord injury in the rat showing reparative macrophages (green) associated with a key angiogenic cytokine, vascular endothelial growth factor (red), following extracellular matrix modification by means of chondroitinase gene delivery. Bartus et al. demonstrated a novel interaction between matrix modification and modulation of the inflammatory response following spinal cord injury. For more information, see the article by Bartus et al. (pages 4822–4836).

i This Week in The Journal

Journal Club

4757 Dorsal Root Ganglion Neurons Carrying a P301S Tau Mutation: A Valid In Vitro Model for Screening Drugs against Tauopathies?
 Niels Alberts, Karlijn Groen, Lisette Klein, Marek J. Konieczny, and Mandy Koopman

Brief Communications

- 4760 Perisaccadic Perception of Visual Space in People with Schizophrenia Alby Richard, Jan Churan, Veronica Whitford, Gillian A. O'Driscoll, Debra Titone, and Christopher C. Pack
- Differential Effects of Synaptic and Extrasynaptic NMDA Receptors on Aβ-Induced Nitric Oxide Production in Cerebrocortical Neurons
 Elena Molokanova, Mohd Waseem Akhtar, Sara Sanz-Blasco, Shichun Tu,
 Juan C. Piña-Crespo, Scott R. McKercher, and Stuart A. Lipton
- 5038 Nipping Cue Reactivity in the Bud: Baclofen Prevents Limbic Activation Elicited by Subliminal Drug Cues
 Kimberly A. Young, Teresa R. Franklin, David C.S. Roberts,
 Kanchana Jagannathan, Jesse J. Suh, Reagan R. Wetherill, Ze Wang,
 Kyle M. Kampman, Charles P. O'Brien, and Anna Rose Childress

Articles

CELLULAR/MOLECULAR

- 4776 Persistent Long-Term Facilitation at an Identified Synapse Becomes Labile with Activation of Short-Term Heterosynaptic Plasticity

 Jiang-Yuan Hu and Samuel Schacher
- 4857 Postnatal Odorant Exposure Induces Peripheral Olfactory Plasticity at the Cellular Level
 Hervé Cadiou, Imad Aoudé, Bassim Tazir, Adrien Molinas, Claire Fenech, Nicolas Meunier, and Xavier Grosmaitre
- Selective Expression of a Dominant-Negative Type Iα PKA Regulatory Subunit in Striatal Medium Spiny Neurons Impairs Gene Expression and Leads to Reduced Feeding and Locomotor Activity
 Linghai Yang, Merle L. Gilbert, Ruimao Zheng, and G. Stanley McKnight
- 4991 Kv2 Channel Regulation of Action Potential Repolarization and Firing Patterns in Superior Cervical Ganglion Neurons and Hippocampal CA1 Pyramidal Neurons Pin W. Liu and Bruce P. Bean

DEVELOPMENT/PLASTICITY/REPAIR

- Specification of Spatial Identities of Cerebellar Neuron Progenitors by Ptf1a and Atoh1 for Proper Production of GABAergic and Glutamatergic Neurons Mayumi Yamada, Yusuke Seto, Shinichiro Taya, Tomoo Owa, Yukiko U. Inoue, Takayoshi Inoue, Yoshiya Kawaguchi, Yo-ichi Nabeshima, and Mikio Hoshino
- Large-Scale Chondroitin Sulfate Proteoglycan Digestion with Chondroitinase Gene Therapy Leads to Reduced Pathology and Modulates Macrophage Phenotype following Spinal Cord Contusion Injury Katalin Bartus, Nicholas D. James, Athanasios Didangelos, Karen D. Bosch, Joost Verhaagen, Rafael J. Yáñez-Muñoz, John H. Rogers, Bernard L. Schneider, Elizabeth M. Muir, and Elizabeth J. Bradbury
- 4941 SDF1 Reduces Interneuron Leading Process Branching through Dual Regulation of **Actin and Microtubules** Daniel E. Lysko, Mary Putt, and Jeffrey A. Golden

SYSTEMS/CIRCUITS

4822

Dorsal Raphe Serotonin Neurons in Mice: Immature Hyperexcitability Transitions to Adult State during First Three Postnatal Weeks Suggesting Sensitive Period for **Environmental Perturbation**

Benjamin D. Rood, Lyngine H. Calizo, David Piel, Zachary P. Spangler, Kaitlin Campbell, and Sheryl G. Beck

- 4905 Ghrelin Acts as an Interface between Physiological State and Phasic Dopamine Signaling
 - Jackson J. Cone, James E. McCutcheon, and Mitchell F. Roitman
- 4914 Differential Conduction Velocity Regulation in Ipsilateral and Contralateral Collaterals Innervating Brainstem Coincidence Detector Neurons Armin H. Seidl, Edwin W Rubel, and Andrés Barría
- Many Parameter Sets in a Multicompartment Model Oscillator Are Robust to 4963 **Temperature Perturbations** Jonathan S. Caplan, Alex H. Williams, and Eve Marder
- Optogenetic Assessment of Horizontal Interactions in Primary Visual Cortex 4976 Xiaoying Huang, Yishai M. Elyada, William H. Bosking, Theo Walker, and David Fitzpatrick
- Effective Connectivity Reveals Right-Hemisphere Dominance in Audiospatial 5003 Perception: Implications for Models of Spatial Neglect Martin J. Dietz, Karl J. Friston, Jason B. Mattingley, Andreas Roepstorff, and Marta I. Garrido
- Operant Conditioning of Synaptic and Spiking Activity Patterns in Single 5044 **Hippocampal Neurons** Daisuke Ishikawa, Nobuyoshi Matsumoto, Tetsuya Sakaguchi, Norio Matsuki, and Yuji Ikegaya
- A Hybrid Oscillatory Interference/Continuous Attractor Network Model of Grid Cell 5065 **Firing** Daniel Bush and Neil Burgess

BEHAVIORAL/COGNITIVE

- Object-Specific Semantic Coding in Human Perirhinal Cortex Alex Clarke and Lorraine K. Tyler
- 4801 14-3-3 Proteins Are Required for Hippocampal Long-Term Potentiation and Associative Learning and Memory Haifa Qiao, Molly Foote, Kourtney Graham, Yuying Wu, and Yi Zhou

- 4837 Behavioral Oscillations in Attention: Rhythmic α Pulses Mediated through θ Band Kun Song, Ming Meng, Lin Chen, Ke Zhou, and Huan Luo
- 4845 Does the Processing of Sensory and Reward-Prediction Errors Involve Common Neural Resources? Evidence from a Frontocentral Negative Potential Modulated by Movement Execution Errors
 - Flavie Torrecillos, Philippe Albouy, Thomas Brochier, and Nicole Malfait
- 4882 Hands in Motion: An Upper-Limb-Selective Area in the Occipitotemporal Cortex
 Shows Sensitivity to Viewed Hand Kinematics
 Tanya Orlov, Yuval Porat, Tamar R. Makin, and Ehud Zohary
- Aberrant Functional Connectivity in Dissociable Hippocampal Networks Is
 Associated with Deficits in Memory
 Natalie L. Voets, Giovanna Zamboni, Mark G. Stokes, Katherine Carpenter,
 Richard Stacey, and Jane E. Adcock
- 5012 Binge-Like Consumption of a Palatable Food Accelerates Habitual Control of Behavior and Is Dependent on Activation of the Dorsolateral Striatum Teri M. Furlong, Hirosha K. Jayaweera, Bernard W. Balleine, and Laura H. Corbit
- 5029 Cerebellar-Parietal Connections Underpin Phonological Storage Katja Macher, Andreas Böhringer, Arno Villringer, and Burkhard Pleger
- 5054 Effector-Independent Motor Sequence Representations Exist in Extrinsic and Intrinsic Reference Frames

 Tobias Wiestler, Sheena Waters-Metenier, and Jörn Diedrichsen

NEUROBIOLOGY OF DISEASE

4871 Spatially Patterned Electrical Stimulation to Enhance Resolution of Retinal Prostheses

Lauren H. Jepson, Paweł Hottowy, Keith Mathieson, Deborah E. Gunning, Władysław Dąbrowski, Alan M. Litke, and E. J. Chichilnisky

4929 Characteristics of the Cation Cotransporter NKCC1 in Human Brain: Alternate Transcripts, Expression in Development, and Potential Relationships to Brain Function and Schizophrenia

Yukitaka Morita, Joseph H. Callicott, Lauren R. Testa, Michelle I. Mighdoll, Dwight Dickinson, Qiang Chen, Ran Tao, Barbara K. Lipska, Bhaskar Kolachana, Amanda J. Law, Tianzhang Ye, Richard E. Straub, Daniel R. Weinberger, Joel E. Kleinman, and Thomas M. Hyde

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).

Submissions should be submitted online using the following url: http://jneurosci.msubmit.net. 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.