



**Cover legend:** This confocal image shows mouse sensory neurons cultured in a compartmentalized chamber to separate axons from cell bodies. Neurons are stained for  $\beta$ -tubulin (TuJ1, cyan), and phosphorylated c-Jun (red). Withdrawal of nerve growth factor from axons results in JNK pathway activation and phosphorylation of c-Jun, while inhibition of MAP4K4, MINK1 and TNIK block JNK pathway activation and subsequent neurodegeneration. For more information, see the article by Larhammar, Huntwork-Rodriguez et al. (pages 11074–11084).

## i This Week in The Journal

### Journal Club

- 11069 **The Role of DNA Polymerase  $\beta$  in Neural Genome Stability**  
Zoltan Simandi
- 11072 **The Role of Kappa Opioid Receptors in Glutamate Input Selection in the Ventral Striatum**  
Angelica P. Escobar

### Research Articles

#### CELLULAR/MOLECULAR

- 11074 **The Ste20 Family Kinases MAP4K4, MINK1, and TNIK Converge to Regulate Stress-Induced JNK Signaling in Neurons**  
Martin Larhammar, Sarah Huntwork-Rodriguez, York Rudhard, Arundhati Sengupta-Ghosh, and Joseph W. Lewcock
- 11127 **Cadherin-10 Maintains Excitatory/Inhibitory Ratio through Interactions with Synaptic Proteins**  
Katharine R. Smith, Kelly A. Jones, Katherine J. Kopeikina, Alain C. Burette, Bryan A. Copits, Sehyoun Yoon, Marc P. Forrest, Jessica M. Fawcett-Patel, Jonathan G. Hanley, Richard J. Weinberg, Geoffrey T. Swanson, and Peter Penzes
- 11181 **Plasticity of Signaling by Spinal Estrogen Receptor  $\alpha$ ,  $\kappa$ -Opioid Receptor, and Metabotropic Glutamate Receptors over the Rat Reproductive Cycle Regulates Spinal Endomorphin 2 Antinociception: Relevance of Endogenous-Biased Agonism**  
Nai-Jiang Liu, Vijaya Murugaiyan, Emiliya M. Storman, Stephen A. Schnell, Arjun Kumar, Martin W. Wessendorf, and Alan R. Gintzler
- 11255 **Activity-Dependent Facilitation of  $Ca_v1.3$  Calcium Channels Promotes  $KCa_{3.1}$  Activation in Hippocampal Neurons**  
Giriraj Sahu, Hadhimulya Asmara, Fang-Xiong Zhang, Gerald W. Zamponi, and Ray W. Turner
- 11271 **The Gain-of-Function Integrin  $\beta 3$  Pro33 Variant Alters the Serotonin System in the Mouse Brain**  
Michael R. Dohn, Christopher G. Kooker, Lisa Bastarache, Tammy Jessen, Capria Rinaldi, Seth Varney, Matthew D. Mazalouskas, Hope Pan, Kendra H. Oliver, Digna R. Velez Edwards, James S. Sutcliffe, Joshua C. Denny, and Ana M.D. Carneiro

- 11285 **Common Synaptic Input to Motor Neurons and Neural Drive to Targeted Reinnervated Muscles**  
Dario Farina, Anna Margherita Castronovo, Ivan Vujaklija, Agnes Sturma, Stefan Salminger, Christian Hofer, and Oskar Aszmann

#### DEVELOPMENT/PLASTICITY/REPAIR

- 11245 **Dmrt5, a Novel Neurogenic Factor, Reciprocally Regulates Lhx2 to Control the Neuron–Glia Cell-Fate Switch in the Developing Hippocampus**  
Bhavana Muralidharan, Marc Keruzore, Saurabh J. Pradhan, Basabdatta Roy, Ashwin S. Shetty, Veena Kinare, Leora D'Souza, Upasana Maheshwari, Krishanpal Karmodiya, Agasthya Suresh, Sanjeev Galande, Eric J. Bellefroid, and Shubha Tole

#### SYSTEMS/CIRCUITS

- 11114 **Protein Kinase A Deregulation in the Medial Prefrontal Cortex Impairs Working Memory in Murine Oligophrenin-1 Deficiency**  
Chun-Lei Zhang, Mattia Aime, Emilie Laheranne, Xander Houbaert, Hajer El Oussini, Christelle Martin, Marilyn Lepleux, Elisabeth Normand, Jamel Chelly, Etienne Herzog, Pierre Billuart, and Yann Humeau
- 11166 **Distinctive Modulation of Dopamine Release in the Nucleus Accumbens Shell Mediated by Dopamine and Acetylcholine Receptors**  
Jung Hoon Shin, Martin F. Adrover, and Veronica A. Alvarez
- 11192 **Correlated Disruption of Resting-State fMRI, LFP, and Spike Connectivity between Area 3b and S2 following Spinal Cord Injury in Monkeys**  
Ruiqi Wu, Pai-Feng Yang, and Li Min Chen
- 11204 **Dissociation of Self-Motion and Object Motion by Linear Population Decoding That Approximates Marginalization**  
Ryo Sasaki, Dora E. Angelaki, and Gregory C. DeAngelis
- 11220 **Sensorimotor Processing in the Basal Ganglia Leads to Transient Beta Oscillations during Behavior**  
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#### BEHAVIORAL/COGNITIVE

- 11101 **Strength of Temporal White Matter Pathways Predicts Semantic Learning**  
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- 11233 **Baseline Levels of Rapid Eye Movement Sleep May Protect Against Excessive Activity in Fear-Related Neural Circuitry**  
Itamar Lerner, Shira M. Lupkin, Neha Sinha, Alan Tsai, and Mark A. Gluck

#### NEUROBIOLOGY OF DISEASE

- 11085 **Dysregulation of the Mitochondrial Unfolded Protein Response Induces Non-Apoptotic Dopaminergic Neurodegeneration in *C. elegans* Models of Parkinson's Disease**  
Bryan A. Martinez, Daniel A. Petersen, Anthony L. Gaeta, Samuel P. Stanley, Guy A. Caldwell, and Kim A. Caldwell
- 11140 **Overactivity of Liver-Related Neurons in the Paraventricular Nucleus of the Hypothalamus: Electrophysiological Findings in *db/db* Mice**  
Hong Gao, Adrien J.R. Molinas, Kayoko Miyata, Xin Qiao, and Andrea Zsombok

**11151 Mitochondrial Calcium Dysregulation Contributes to Dendrite Degeneration Mediated by PD/LBD-Associated LRRK2 Mutants**

Manish Verma, Jason Callio, P. Anthony Otero, Israel Sekler, Zachary P. Wills, and Charleen T. Chu

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