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Cover legend: This image shows a dye-filled neuron (red) in a mouse cochlear nucleus. Auditory nerve fibers with high spontaneous firing rate (magenta) innervate the cochlear nucleus and express the vesicular glutamate transporter VGluT1 (cyan), but not VGluT2 (yellow), in their presynaptic terminals. Depleted synaptic vesicles are replenished more quickly in these fibers than in fibers with lower spontaneous firing rates, which express VGluT2 as well as VGluT1. For more information see the article by Zhang et al. (pages 2729–2742).

Cover image: Ruili Xie.

2613 This Week in The Journal

Research Articles

CELLULAR/MOLECULAR

- Morphology and Dendrite-Specific Synaptic Properties of Midbrain Neurons Shape Multimodal Integration
 S. Weigel, T. Kuenzel, K. Lischka, G. Huang, and H. Luksch
- 2631 The Metabolite Saccharopine Impairs Neuronal Development by Inhibiting the Neurotrophic Function of Glucose-6-Phosphate Isomerase
 Ye Guo, Junjie Wu, Min Wang, Xin Wang, Youli Jian, Chonglin Yang, and Weixiang Guo
- 2647 Behavioral Timescale Cooperativity and Competitive Synaptic Interactions Regulate the Induction of Complex Spike Burst-Dependent Long-Term Potentiation Thomas J. O'Dell
- APT1-Mediated Depalmitoylation Regulates Hippocampal Synaptic Plasticity
 Zu-Cheng Shen, Zhi-Xuan Xia, Jian-Min Liu, Jie-Yan Zheng, Yu-Fei Luo,
 Han Yang, Meng-Die Li, Ting Cao, Hai-Ping Liu, Gui-Lin Jin, Hui-Hui Huang,
 Chang-Xi Yu, and Jun Zhou
- 2678 AMIGO1 Promotes Axon Growth and Territory Matching in the Retina Florentina Soto, Ning Shen, and Daniel Kerschensteiner
- 2690 Zcchc12-Containing Nociceptors Are Required for Noxious Heat Sensation
 Dan Wu, Yan Chen, Zhen Li, Hong Xie, Sashuang Wang, Yingjin Lu, Lan Bao,
 Xu Zhang, and Changlin Li

SYSTEMS/CIRCUITS

- 2701 Ipsilateral Stimulus Encoding in Primary and Secondary Somatosensory Cortex of Awake Mice Aurélie Pala and Garrett B. Stanley
- Differential Contributions of Ventral Striatum Subregions to the Motivational and Hedonic Components of the Affective Processing of Reward
 Eva R. Pool, David Munoz Tord, Sylvain Delplanque, Yoann Stussi, Donato Cereghetti, Patrik Vuilleumier, and David Sander
- 2729 Calretinin-Expressing Synapses Show Improved Synaptic Efficacy with Reduced Asynchronous Release during High-Rate Activity
 Chuangeng Zhang, Meijian Wang, Shengyin Lin, and Ruili Xie

BEHAVIORAL/COGNITIVE

2743 Distinct Medial Orbitofrontal-Striatal Circuits Support Dissociable Component Processes of Risk/Reward Decision-Making

Nicole L. Jenni, Griffin Rutledge, and Stan B. Floresco

2756 Integrated Amygdala, Orbitofrontal and Hippocampal Contributions to Reward and Loss Coding Revealed with Human Intracranial EEG

Luis Manssuer, Ding Qiong, Liu Wei, Ruoqi Yang, Chencheng Zhang, Yijie Zhao, Bomin Sun, Shikun Zhan, and Valerie Voon

2772 The Neural Representations of Emotional Experiences Are More Similar Than Those of Neutral Experiences

Martina Riberto, Rony Paz, Gorana Pobric, and Deborah Talmi

2786 Nicotinic Acetylcholine Receptors Expressed by Striatal Interneurons Inhibit Striatal Activity and Control Striatal-Dependent Behaviors

Alice Abbondanza, Irina Ribeiro Bas, Martin Modrak, Martin Capek, Jessica Minich, Alexandra Tyshkevich, Shahed Naser, Revan Rangotis, Pavel Houdek, Alena Sumova, Sylvie Dumas, Veronique Bernard, and Helena Janickova

NEUROBIOLOGY OF DISEASE

2804 A Critical Period for Development of Cerebellar-Mediated Autism-Relevant Social Behavior

Jennifer M. Gibson, Cleone P. Howland, Chongyu Ren, Cyrena Howland, Alexandra Vernino, and Peter T. Tsai

2824 The ZIP3 Zinc Transporter Is Localized to Mossy Fiber Terminals and Is Required for Kainate-Induced Degeneration of CA3 Neurons

Milos Bogdanovic, Hila Asraf, Noa Gottesman, Israel Sekler, Elias Aizenman, and Michal Hershfinkel

2835 Striatal Indirect Pathway Dysfunction Underlies Motor Deficits in a Mouse Model of Paroxysmal Dyskinesia

Alexandra B. Nelson, Allison E. Girasole, Hsien-Yang Lee, Louis J. Ptáček, and Anatol C. Kreitzer

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