



Cover legend: This image is a negative-stain electron micrograph of mouse brain synaptic vesicles immunisolated with the monoclonal antibody rho1D4 and eluted under native conditions with the 1D4 peptide. Although targeting the C-terminus of bovine rhodopsin, rho1D4 unexpectedly binds to synaptic vesicles, providing an efficient method for isolating these vesicles. For more information, see the article by Bradberry et al. (pages 3512–3522).

Cover image: Zhao Zhang, Lanxi Wu, and Mazdak Bradberry.

3511 This Week in The Journal

Research Articles

CELLULAR/MOLECULAR

- 3512 Rapid and Gentle Immunopurification of Brain Synaptic Vesicles**
Mazdak M. Bradberry, Shweta Mishra, Zhao Zhang, Lanxi Wu, Justin M. McKetney, Martha M. Vestling, Joshua J. Coon, and Edwin R. Chapman
- 3523 Spontaneously Recycling Synaptic Vesicles Constitute Readily Releasable Vesicles in Intact Neuromuscular Synapses**
Yoshihiro Egashira, Ayane Kumade, Akio Ojida, and Fumihito Ono
- 3537 Arrestin Facilitates Rhodopsin Dephosphorylation *in Vivo***
Chia-Ling Hsieh, Yun Yao, Vsevolod V. Gurevich, and Jeannie Chen

DEVELOPMENT/PLASTICITY/REPAIR

- 3546 The Development of Receptive Field Tuning Properties in Mouse Binocular Primary Visual Cortex**
Liming Tan, Dario L. Ringach, and Joshua T. Trachtenberg
- 3557 Environmental Enrichment Mitigates the Long-Lasting Sequelae of Perinatal Fentanyl Exposure in Mice**
Jason Bondoc Alipio, Lace Marie Riggs, Madeline Plank, and Asaf Keller

SYSTEMS/CIRCUITS

- 3570 Activity of Spinal Interneurons during Forward and Backward Locomotion**
Pavel E. Musienko, Vladimir F. Lyalka, Oleg V. Gorskii, Pavel V. Zelenin, and Tatiana G. Deliagina
- 3587 Presynaptic Interactions between Trigeminal and Cervical Nociceptive Afferents Supplying Upper Cervical Lamina I Neurons**
Elisabete C. Fernandes, José Carlos-Ferreira, Liliana L. Luz, and Boris V. Safronov
- 3599 Callosal Fiber Length Scales with Brain Size According to Functional Lateralization, Evolution, and Development**
Liyuan Yang, Chenxi Zhao, Yirong Xiong, Suyu Zhong, Di Wu, Shaoling Peng, Michel Thiebaut de Schotten, and Gaolang Gong
- 3611 Reading and Modulating Cortical β Bursts from Motor Unit Spiking Activity**
Mario Bräcklein, Deren Y. Barsakcioglu, Alessandro Del Vecchio, Jaime Ibáñez, and Dario Farina

BEHAVIORAL/COGNITIVE

- 3622 Partially Overlapping Neural Correlates of Metacognitive Monitoring and Metacognitive Control**
Annika Boldt and Sam J Gilbert
- 3636 The Neural Bases of Action-Outcome Learning in Humans**
Richard W. Morris, Amir Dezfouli, Kristi R. Griffiths, Mike E. Le Pelley, and Bernard W. Balleine
- 3648 Improved Speech Hearing in Noise with Invasive Electrical Brain Stimulation**
Prachi Patel, Bahar Khalijhinejad, Jose L. Herrero, Stephan Bickel, Ashesh D. Mehta, and Nima Mesgarani

NEUROBIOLOGY OF DISEASE

- 3659 Thoracic VGLuT2⁺ Spinal Interneurons Regulate Structural and Functional Plasticity of Sympathetic Networks after High-Level Spinal Cord Injury**
Benjamin T. Noble, Faith H. Brennan, Yan Wang, Zhen Guan, Xiaokui Mo, Jan M. Schwab, and Phillip G. Popovich
- 3676 Perinatal Opioid Exposure Results in Persistent Hypoconnectivity of Excitatory Circuits and Reduced Activity Correlations in Mouse Primary Auditory Cortex**
Binghan Xue, Jason B. Alipio, Joseph P. Y. Kao, and Patrick O. Kanold

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