

JNeurosci

THE JOURNAL OF NEUROSCIENCE

February 15, 2017 • Volume 37 Number 7 • www.jneurosci.org



Cover legend: This image shows embryonic motor cortical neurons (colored) transplanted into the adult mouse motor cortex. Transplanted neurons were organized in the shape of heart. A one-week delay between lesion and transplantation enhances graft vascularization, as well as the survival and proliferation of grafted cells. Furthermore, the delay increases the density of projections developed by grafted neurons and improves functional recovery. For more information, see the article Péron et al. (pages 1820–1834).

i This Week in The Journal

Progressions

- 1663 **Learning to Predict and Control the Physics of Our Movements**
Reza Shadmehr

Journal Club

- 1672 **Behavioral and Physiological Consequences of Adult Brain 5-HT Depletion in Mice**
José Patricio Casanova

Research Articles

CELLULAR/MOLECULAR

- 1747 **Nanoscale Molecular Reorganization of the Inhibitory Postsynaptic Density Is a Determinant of GABAergic Synaptic Potentiation**
Francesca Pennacchietti, Sebastiano Vascon, Thierry Nieuu, Christian Rosillo, Sabyasachi Das, Shiva K. Tyagarajan, Alberto Diaspro, Alessio Del Bue, Enrica Maria Petrini, Andrea Barberis, and Francesca Cella Zancacchi
- 1757 **Synapsin II Regulation of GABAergic Synaptic Transmission Is Dependent on Interneuron Subtype**
Pedro Feliciano, Heidi Matos, Rodrigo Andrade, and Maria Bykhovskaia
- 1772 **TREM2 Promotes Microglial Survival by Activating Wnt/ β -Catenin Pathway**
Honghua Zheng, Lin Jia, Chia-Chen Liu, Zhouyi Rong, Li Zhong, Longyu Yang, Xiao-Fen Chen, John D. Fryer, Xin Wang, Yun-wu Zhang, Huaxi Xu, and Guojun Bu
- 1785 **Control of Amygdala Circuits by 5-HT Neurons via 5-HT and Glutamate Cotransmission**
Ayesha Sengupta, Marco Bocchio, David M. Bannerman, Trevor Sharp, and Marco Capogna
- 1797 **Long Noncoding RNA Malat1 Regulates Cerebrovascular Pathologies in Ischemic Stroke**
Xuejing Zhang, Xuelian Tang, Kai Liu, Milton H. Hamblin, and Ke-Jie Yin
- 1862 **Accumulation of Polyribosomes in Dendritic Spine Heads, But Not Bases and Necks, during Memory Consolidation Depends on Cap-Dependent Translation Initiation**
Linnaea E. Ostroff, Benjamin Botsford, Sofya Gindina, Kiriana K. Cowansage, Joseph E. LeDoux, Eric Klann, and Charles Hoeffler

- 1873 **Muscarinic Acetylcholine Receptors and M-Currents Underlie Efferent-Mediated Slow Excitation in Calyx-Bearing Vestibular Afferents**
J. Chris Holt, Paivi M. Jordan, Anna Lysakowski, Amit Shah, Kathy Barsz, and Donatella Contini
- 1888 **Differential Presynaptic ATP Supply for Basal and High-Demand Transmission**
Courtney Sobieski, Michael J. Fitzpatrick, and Steven J. Mennerick
- 1900 **Circadian Kinetics of Cell Cycle Progression in Adult Neurogenic Niches of a Diurnal Vertebrate**
Veronica Akle, Alexander J. Stankiewicz, Vasili Kharchenko, Lili Yu, Peter V. Kharchenko, and Irina V. Zhdanova
- 1910 **Target Cell Type-Dependent Differences in Ca²⁺ Channel Function Underlie Distinct Release Probabilities at Hippocampal Glutamatergic Terminals**
Tímea Éltés, Tekla Kirizs, Zoltan Nusser, and Noemi Holderith
- 1950 **Differential Regulation of NMDA Receptor-Mediated Transmission by SK Channels Underlies Dorsal-Ventral Differences in Dynamics of Schaffer Collateral Synaptic Function**
Walter E. Babiec, Shekib A. Jami, Ryan Guglietta, Patrick B. Chen, and Thomas J. O'Dell

DEVELOPMENT/PLASTICITY/REPAIR

- 1685 **Sonic Hedgehog Guides Axons via Zipcode Binding Protein 1-Mediated Local Translation**
Léa Lepelletier, Sébastien D. Langlois, Christopher B. Kent, Kristy Welshhans, Steves Morin, Gary J. Bassell, Patricia T. Yam, and Frédéric Charron
- 1820 **A Delay between Motor Cortex Lesions and Neuronal Transplantation Enhances Graft Integration and Improves Repair and Recovery**
Sophie Péron, Marine Droguerre, Franck Debarbieux, Nissrine Ballout, Marianne Benoit-Marand, Maureen Francheteau, Sébastien Brot, Geneviève Rougon, Mohamed Jaber, and Afsaneh Gaillard
- 1925 **Hippocampal Contribution to Context Encoding across Development Is Disrupted following Early-Life Adversity**
Hilary K. Lambert, Margaret A. Sheridan, Kelly A. Sambrook, Maya L. Rosen, Mary K. Askren, and Katie A. McLaughlin

SYSTEMS/CIRCUITS

- 1721 **Trial-by-Trial Motor Cortical Correlates of a Rapidly Adapting Visuomotor Internal Model**
Sergey D. Stavisky, Jonathan C. Kao, Stephen I. Ryu, and Krishna V. Shenoy
- 1733 **Encoding of Both Reaching and Grasping Kinematics in Dorsal and Ventral Premotor Cortices**
Kazutaka Takahashi, Matthew D. Best, Noah Huh, Kevin A. Brown, Adil A. Tobaa, and Nicholas G. Hatsopoulos
- 1807 **Activity of *Tachykinin1*-Expressing *Pet1* Raphe Neurons Modulates the Respiratory Chemoreflex**
Morgan L. Hennessy, Andrea E. Corcoran, Rachael D. Brust, YoonJeung Chang, Eugene E. Nattie, and Susan M. Dymecki
- 1935 **Paired Stimulation for Spike-Timing-Dependent Plasticity in Primate Sensorimotor Cortex**
Stephanie C. Seeman, Brian J. Mogen, Eberhard E. Fetz, and Steve I. Perlmuter

BEHAVIORAL/COGNITIVE

- 1696 Brain Structure and Function Associated with Younger Adults in Growth Hormone Receptor-Deficient Humans**
Kaoru Nashiro, Jaime Guevara-Aguirre, Meredith N. Braskie, George W. Hafzalla, Rico Velasco, Priya Balasubramanian, Min Wei, Paul M. Thompson, Mara Mather, Marvin D. Nelson, Alexandra Guevara, Enrique Teran, and Valter D. Longo
- 1708 Dopamine Modulates Adaptive Prediction Error Coding in the Human Midbrain and Striatum**
Kelly M.J. Diederer, Hisham Ziauddeen, Martin D. Vestergaard, Tom Spencer, Wolfram Schultz, and Paul C. Fletcher
- 1835 Behavioral Status Influences the Dependence of Odorant-Induced Change in Firing on Prestimulus Firing Rate**
Anan Li, Ethan M. Guthman, Wilder T. Doucette, and Diego Restrepo
- 1853 Dysregulated Glycine Signaling Contributes to Increased Impulsivity during Protracted Alcohol Abstinence**
Cristina Irimia, Matthew W. Buczynski, Luis A. Natividad, Sarah A. Laredo, Nathaniel Avalos, and Loren H. Parsons

NEUROBIOLOGY OF DISEASE

- 1675 Hippocampal α -Synuclein in Dementia with Lewy Bodies Contributes to Memory Impairment and Is Consistent with Spread of Pathology**
David H. Adamowicz, Subhojit Roy, David P. Salmon, Douglas R. Galasko, Lawrence A. Hansen, Eliezer Masliah, and Fred H. Gage

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