

JNeurosci

THE JOURNAL OF NEUROSCIENCE

October 11, 2017 • Volume 37 Number 41 • www.jneurosci.org



Cover legend: The image shows co-injection of two tracers into the Giant Fiber Interneuron (GFI) of the *Drosophila* thoracic ganglia. TRITC (red) labels the injected neuron while the smaller neurobiotin (yellow) passes through gap junctions to reveal the extensive connectivity of the neural circuit. This brain lacks Fragile X Mental Retardation Protein (FMRP) which results in a selective increase in neurobiotin uptake via a mechanism unrelated to gap junctions. For more information, see the article by Kennedy and Broadie (pages 9844–9858).

i This Week in The Journal

Dual Perspectives

- 9799 **Parkinson's Disease Is Not Simply a Prion Disorder**
D. James Surmeier, José A. Obeso, and Glenda M. Halliday
- 9808 **Prying into the Prion Hypothesis for Parkinson's Disease**
Patrik Brundin and Ronald Melki

Research Articles

CELLULAR/MOLECULAR

- 9828 **Identification of Protein Tyrosine Phosphatase Receptor Type O (PTPRO) as a Synaptic Adhesion Molecule that Promotes Synapse Formation**
Wei Jiang, Mengping Wei, Mengna Liu, Yunlong Pan, Dong Cao, Xiaofei Yang, and Chen Zhang
- 9859 **Astrocyte-Mediated Neuronal Synchronization Properties Revealed by False Gliotransmitter Release**
Tiina M. Pirttimäki, Robert E. Sims, Gregory Saunders, Serena A. Antonio, Neela Krushna Codadu, and H. Rheinallt Parri
- 9901 **Regional Cellular Environment Shapes Phenotypic Variations of Hippocampal and Neocortical Chandelier Cells**
Yugo Ishino, Michael J. Yetman, Serena M. Sossi, André Steinecke, Yasufumi Hayano, and Hiroki Taniguchi
- 9945 **MAP1B Light Chain Modulates Synaptic Transmission via AMPA Receptor Intracellular Trapping**
Rocío Palenzuela, Yolanda Gutiérrez, Jonathan E. Draffin, Argentina Lario, Marion Benoist, and José A. Esteban
- 9964 **Sodium Dynamics in Pyramidal Neuron Dendritic Spines: Synaptically Evoked Entry Predominantly through AMPA Receptors and Removal by Diffusion**
Kenichi Miyazaki and William N. Ross

DEVELOPMENT/PLASTICITY/REPAIR

- 9889 **The TRPM1 Channel Is Required for Development of the Rod ON Bipolar Cell-AII Amacrine Cell Pathway in the Retinal Circuit**
Takashi Kozuka, Taro Chaya, Fuminobu Tamalu, Mariko Shimada, Kayo Fujimaki-Aoba, Ryusuke Kuwahara, Shu-Ichi Watanabe, and Takahisa Furukawa

- 9925 **GD1a Overcomes Inhibition of Myelination by Fibronectin via Activation of Protein Kinase A: Implications for Multiple Sclerosis**
Jing Qin, Arend H. Sikkema, Kristine van der Bij, Jenny C. de Jonge, Karin Klappe, Vera Nies, Johan W. Jonker, Jan Willem Kok, Dick Hoekstra, and Wia Baron

SYSTEMS/CIRCUITS

- 9871 **Visual Responses in FEF, Unlike V1, Primarily Reflect When the Visual Context Renders a Receptive Field Salient**
Wilsaan M. Joiner, James Cavanaugh, Robert H. Wurtz, and Bruce G. Cumming
- 10012 **Adaptation of Thalamic Neurons Provides Information about the Spatiotemporal Context of Stimulus History**
Chen Liu, Guglielmo Foffani, Alessandro Scaglione, Juan Aguilar, and Karen A. Moxon

BEHAVIORAL/COGNITIVE

- 9819 **T-Cell Mediation of Pregnancy Analgesia Affecting Chronic Pain in Mice**
Sarah F. Rosen, Boram Ham, Shannon Drouin, Nadia Boachie, Anne-Julie Chabot-Dore, Jean-Sebastien Austin, Luda Diatchenko, and Jeffrey S. Mogil
- 9939 **Oscillatory Reinstatement Enhances Declarative Memory**
Amir-Homayoun Javadi, James C. Glen, Sara Halkiopoulos, Mei Schulz, and Hugo J. Spiers
- 9999 **Domain-General Brain Regions Do Not Track Linguistic Input as Closely as Language-Selective Regions**
Idan A. Blank and Evelina Fedorenko

NEUROBIOLOGY OF DISEASE

- 9844 **Fragile X Mental Retardation Protein Restricts Small Dye Iontophoresis Entry into Central Neurons**
Tyler Kennedy and Kendal Broadie
- 9880 **Activity-Dependent Dysfunction in Visual and Olfactory Sensory Systems in Mouse Models of Down Syndrome**
Christopher M. William, Lubna Saqran, Matthew A. Stern, Charles L. Chiang, Scott P. Herrick, Aziz Rangwala, Mark W. Albers, Matthew P. Frosch, and Bradley T. Hyman
- 9917 **Inhibition of p25/Cdk5 Attenuates Tauopathy in Mouse and iPSC Models of Frontotemporal Dementia**
Jinsoo Seo, Oleg Kritskiy, L. Ashley Watson, Scarlett J. Barker, Dilip Dey, Waseem K. Raja, Yuan-Ta Lin, Tak Ko, Sukhee Cho, Jay Penney, M. Catarina Silva, Steven D. Sheridan, Diane Lucente, James F. Gusella, Bradford C. Dickerson, Stephen J. Haggarty, and Li-Huei Tsai

9977 **A Population of Indirect Pathway Striatal Projection Neurons Is Selectively Entrained to Parkinsonian Beta Oscillations**

Andrew Sharott, Federica Vinciati, Kouichi C. Nakamura, and Peter J. Magill

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/content/information-authors>. Authors should refer to these Instructions online for recent changes that are made periodically.

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; e-mail, jn@sfn.org.