

The Journal of Neuroscience

November 5, 2014 • Volume 34 Number 45 • www.jneurosci.org



Cover legend: Coronal section of a mouse brain containing the inhibitory neuromodulator hM4D in GABA neurons (red) of the ventral hippocampus, overlaid with DAPI nuclear staining (blue). Silencing of neural activity mediated by hM4D in either parvalbumin-positive or GAD65-positive GABA neurons produced distinct behaviors related to schizophrenia. For more details, see the article by Nguyen et al. (pages 14948–14960).

i This Week in The Journal

Journal Club

- 14817 **Can Object Category-Selectivity in the Ventral Visual Pathway Be Explained by Sensitivity to Low-Level Image Properties?**
Susan G. Wardle and J. Brendan Ritchie

Brief Communications

- 14827 **Mirror Neuron Activation Prior to Action Observation in a Predictable Context**
Monica Maranesi, Alessandro Livi, Leonardo Fogassi, Giacomo Rizzolatti, and Luca Bonini
- 14913 **Constrained by Our Connections: White Matter's Key Role in Interindividual Variability in Visual Working Memory Capacity**
Ali M. Golestani, Laura Miles, James Babb, F. Xavier Castellanos, Dolores Malaspina, and Mariana Lazar

Articles

CELLULAR/MOLECULAR

- 14820 **Caspr and Caspr2 Are Required for Both Radial and Longitudinal Organization of Myelinated Axons**
Aaron Gordon, Konstantin Adamsky, Anya Vainshtein, Shahar Frechter, Jeffrey L. Dupree, Jack Rosenbluth, and Elior Peles
- 14854 **Nucleotide Bound to rab11a Controls Localization in Rod Cells But Not Interaction with Rhodopsin**
Nicholas J. Reish, Evan R. Boitet, Katie L. Bales, and Alecia K. Gross
- 15083 **Direct Visualization of *Trans*-Synaptic Neurexin–Neuroigin Interactions during Synapse Formation**
Theodoros Tsetsenis, Antony A. Boucard, Demet Araç, Axel T. Brunger, and Thomas C. Südhof

DEVELOPMENT/PLASTICITY/REPAIR

- 14961 **Wnt5 and Drl/Ryk Gradients Pattern the *Drosophila* Olfactory Dendritic Map**
Yuping Wu, Jay-Christian Helt, Emily Wexler, Iveta M. Petrova, Jasprina N. Noordermeer, Lee G. Fradkin, and Huey Hing
- 14973 **Migration of Oligodendrocyte Progenitor Cells Is Controlled by Transforming Growth Factor β Family Proteins during Corticogenesis**
Youngshik Choe, Trung Huynh, and Samuel J. Pleasure
- 15060 **Development of Gonadotropin-Releasing Hormone Secretion and Pituitary Response**
Katarzyna M. Glanowska, Laura L. Burger, and Suzanne M. Moenter

SYSTEMS/CIRCUITS

- 14845 Cerebellar-Dependent Expression of Motor Learning during Eyeblink Conditioning in Head-Fixed Mice**
Shane A. Heiney, Margot P. Wohl, Selmaan N. Chettih, Luis I. Ruffolo, and Javier F. Medina
- 14984 Millisecond Timescale Synchrony among Hippocampal Neurons**
Kamran Diba, Asohan Amarasingham, Kenji Mizuseki, and György Buzsáki
- 15022 Back to the Future: Preserved Hippocampal Network Activity during Reverse Ambulation**
Andrew P. Maurer, Adam W. Lester, Sara N. Burke, Jonathan J. Ferng, and Carol A. Barnes
- 15032 Development of Intrinsic Connectivity in the Central Nucleus of the Mouse Inferior Colliculus**
Joshua Sturm, Tuan Nguyen, and Karl Kandler
- 15047 Neural Substrates of View-Invariant Object Recognition Developed without Experiencing Rotations of the Objects**
Jun-ya Okamura, Reona Yamaguchi, Kazunari Honda, Gang Wang, and Keiji Tanaka
- 15097 A Model of Synaptic Vesicle-Pool Depletion and Replenishment Can Account for the Interspike Interval Distributions and Nonrenewal Properties of Spontaneous Spike Trains of Auditory-Nerve Fibers**
Adam J. Peterson, Dexter R.F. Irvine, and Peter Heil
- 15110 Catecholaminergic C3 Neurons Are Sympathoexcitatory and Involved in Glucose Homeostasis**
Clément Menuet, Charles P. Sevigny, Angela A. Connelly, Jaspreet K. Bassi, Nikola Jancovski, David A. Williams, Colin R. Anderson, Ida J. Llewellyn-Smith, Angelina Y. Fong, and Andrew M. Allen

BEHAVIORAL/COGNITIVE

- 14833 The Effects of Incentive Framing on Performance Decrements for Large Monetary Outcomes: Behavioral and Neural Mechanisms**
Vikram S. Chib, Shinsuke Shimojo, and John P. O'Doherty
- 14864 A Designated Odor–Language Integration System in the Human Brain**
Jonas K. Olofsson, Robert S. Hurley, Nicholas E. Bowman, Xiaojun Bao, M.-Marsel Mesulam, and Jay A. Gottfried
- 14901 Episodic Memory Encoding Interferes with Reward Learning and Decreases Striatal Prediction Errors**
G. Elliott Wimmer, Erin Kendall Braun, Nathaniel D. Daw, and Daphna Shohamy
- 14934 Effects of Luminance Contrast on the Color Selectivity of Neurons in the Macaque Area V4 and Inferior Temporal Cortex**
Tomoyuki Namima, Masaharu Yasuda, Taku Banno, Gouki Okazawa, and Hidehiko Komatsu
- 14948 Parvalbumin and GAD65 Interneuron Inhibition in the Ventral Hippocampus Induces Distinct Behavioral Deficits Relevant to Schizophrenia**
Robin Nguyen, Mark D. Morrissey, Vivek Mahadevan, Janine D. Cajanding, Melanie A. Woodin, John S. Yeomans, Kaori Takehara-Nishiuchi, and Jun Chul Kim
- 14995 Girdin Phosphorylation Is Crucial for Synaptic Plasticity and Memory: A Potential Role in the Interaction of BDNF/TrkB/Akt Signaling with NMDA Receptor**
Tsuyoshi Nakai, Taku Nagai, Motoki Tanaka, Norimichi Itoh, Naoya Asai, Atsushi Enomoto, Masato Asai, Shinnosuke Yamada, Ali Bin Saifullah, Masahiro Sokabe, Masahide Takahashi, and Kiyofumi Yamada

- 15070 **MicroRNA-19b Associates with Ago2 in the Amygdala Following Chronic Stress and Regulates the Adrenergic Receptor Beta 1**
Naama Volk, Evan D. Paul, Sharon Haramati, Chen Eitan, Brandon K.K. Fields, Raaya Zwang, Shosh Gil, Christopher A. Lowry, and Alon Chen

NEUROBIOLOGY OF DISEASE

- 14874 **Impaired Action Potential Initiation in GABAergic Interneurons Causes Hyperexcitable Networks in an Epileptic Mouse Model Carrying a Human $Na_v1.1$ Mutation**
Ulrike B.S. Hedrich, Camille Liautard, Daniel Kirschenbaum, Martin Pofahl, Jennifer Lavigne, Yuanyuan Liu, Stephan Theiss, Johannes Slotta, Andrew Escayg, Marcel Dihné, Heinz Beck, Massimo Mantegazza, and Holger Lerche
- 14890 **Prolonged Deficits in Parvalbumin Neuron Stimulation-Evoked Network Activity Despite Recovery of Dendritic Structure and Excitability in the Somatosensory Cortex following Global Ischemia in Mice**
Yicheng Xie (谢诒诚), Shangbin Chen (陈尚宾), Yujin Wu(吴予津), and Timothy H. Murphy
- 14919 **Synaptic and Cognitive Improvements by Inhibition of 2-AG Metabolism Are through Upregulation of MicroRNA-188-3p in a Mouse Model of Alzheimer's Disease**
Jian Zhang, Mei Hu, Zhaoqian Teng, Ya-Ping Tang, and Chu Chen
- 15009 **Permittivity Coupling across Brain Regions Determines Seizure Recruitment in Partial Epilepsy**
Timothée Proix, Fabrice Bartolomei, Patrick Chauvel, Christophe Bernard, and Viktor K. Jirsa
- 15123 **Transnitrosylation from DJ-1 to PTEN Attenuates Neuronal Cell Death in Parkinson's Disease Models**
Min Sik Choi, Tomohiro Nakamura, Seung-Je Cho, Xuemei Han, Emily A. Holland, Jing Qu, Gregory A. Petsko, John R. Yates III, Robert C. Liddington, and Stuart A. Lipton

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/misc/itoa.shtml>. Authors should refer to these Instructions online for recent changes that are made periodically.

Brief Communications Instructions for Authors are available via Internet (http://www.jneurosci.org/misc/ifa_bc.shtml).

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; fax, 202-962-4945; e-mail, jn@sfn.org.