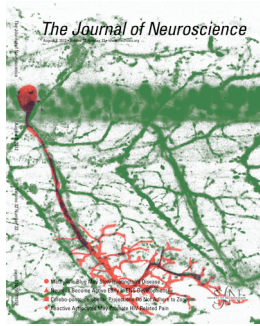


The Journal of Neuroscience

August 8, 2012 • Volume 32 Number 32 • www.jneurosci.org



Cover legend: A confocal z-stack of larval zebrafish axial motoneurons from the *parg^{mn2Et}* enhancer trap line. The image depicts the longitudinal column of green fluorescent protein-labeled cell bodies in the spinal cord and their peripheral axon arborizations in the chevron-shaped trunk muscles (green).

Superimposed on the axial motor pool is a caudal primary motoneuron (CaP) in the same larva, which was electroporated with rhodamine dextran (red). The stack is 80 μm in width; dorsal is up and rostral is to the left. For more information, see the article by Menelaou and McLean (pages 10925–10939).

i This Week in The Journal

Journal Club

- 10795 **Unraveling Acetylcholine Impact on Human Cortical Plasticity**
Antonio Suppa and Odysseas Papazachariadis

Articles

CELLULAR/MOLECULAR

- 10971 **Upregulation of the E3 ligase NEDD4-1 by Oxidative Stress Degrades IGF-1 Receptor Protein in Neurodegeneration**
Young-Don Kwak, Bin Wang, Jing Jing Li, Ruishan Wang, Qiyue Deng, Shiyong Diao, Yaomin Chen, Raymond Xu, Eliezer Masliah, Huaxi Xu, Jung-Joon Sung, and Francesca-Fang Liao
- 10995 **Increase in Sodium Conductance Decreases Firing Rate and Gain in Model Neurons**
Tilman J. Kispersky, Jonathan S. Caplan, and Eve Marder
- 11050 **Activation of Aurora-A Is Essential for Neuronal Migration via Modulation of Microtubule Organization**
Takako Takitoh, Kanako Kumamoto, Chen-Chi Wang, Makoto Sato, Shiori Toba, Anthony Wynshaw-Boris, and Shinji Hirotsune
- 11095 **Formation of Golgi-Derived Active Zone Precursor Vesicles**
Christoph Maas, Viviana I. Torres, Wilko D. Altmann, Sergio Leal-Ortiz, Dhananjay Wagh, Ryan T. Terry-Lorenzo, Anna Fejtova, Eckart D. Gundelfinger, Noam E. Ziv, and Craig C. Garner
- 11109 **Methylene Blue Modulates Huntingtin Aggregation Intermediates and Is Protective in Huntington's Disease Models**
Emily Mitchell Sontag, Gregor P. Lotz, Namita Agrawal, Andrew Tran, Rebecca Aron, Guocheng Yang, Mihaela Necula, Alice Lau, Steven Finkbeiner, Charles Glabe, J. Lawrence Marsh, Paul J. Muchowski, and Leslie M. Thompson
- 11132 **Tonic Inhibition Enhances Fidelity of Sensory Information Transmission in the Cerebellar Cortex**
Ian Duguid, Tiago Branco, Michael London, Paul Chadderton, and Michael Häusser
- 11144 **Rabconnectin3 α Promotes Stable Activity of the H⁺ Pump on Synaptic Vesicles in Hair Cells**
Zev Einhorn, Josef G. Trapani, Qianyong Liu, and Teresa Nicolson

DEVELOPMENT/PLASTICITY/REPAIR

- 10940 **Fezf2 Regulates Multilineage Neuronal Differentiation through Activating Basic Helix-Loop-Helix and Homeodomain Genes in the Zebrafish Ventral Forebrain**
Nan Yang, Zhiqiang Dong, and Su Guo
- 10949 **Early Development of Electrical Excitability in the Mouse Enteric Nervous System**
Marlene M. Hao, Alan E. Lomax, Sonja J. McKeown, Christopher A. Reid, Heather M. Young, and Joel C. Bornstein
- 10982 **Voltage-Sensitive Dye Imaging Reveals Dynamic Spatiotemporal Properties of Cortical Activity after Spontaneous Muscle Twitches in the Newborn Rat**
David A. McVea, Majid H. Mohajerani, and Timothy H. Murphy

BEHAVIORAL/SYSTEMS/COGNITIVE

- 10797 **Supraspinal Peroxynitrite Modulates Pain Signaling by Suppressing the Endogenous Opioid Pathway**
Joshua W. Little, Zhoumou Chen, Timothy Doyle, Frank Porreca, Mahsa Ghaffari, Leesa Bryant, William L. Neumann, and Daniela Salvemini
- 10819 **Sodium Channel Na_v1.7 Is Essential for Lowering Heat Pain Threshold after Burn Injury**
Shannon D. Shields, Xiaoyang Cheng, Nurcan Üçeyler, Claudia Sommer, Sulayman D. Dib-Hajj, and Stephen G. Waxman
- 10854 **Organization of Cerebral Projections to Identified Cerebellar Zones in the Posterior Cerebellum of the Rat**
Lucia Suzuki, Patrice Coulon, Erika H. Sabel-Goedknecht, and Tom J. H. Ruigrok
- 10870 **How Preparation Changes the Need for Top-Down Control of the Basal Ganglia When Inhibiting Premature Actions**
Sara Jahfari, Frederick Verbruggen, Michael J. Frank, Lourens J. Waldorp, Lorenza Colzato, K. Richard Ridderinkhof, and Birte U. Forstmann
- 10879 **An Essential Role for Histone Deacetylase 4 in Synaptic Plasticity and Memory Formation**
Mi-Sung Kim, M. Waseem Akhtar, Megumi Adachi, Melissa Mahgoub, Rhonda Bassel-Duby, Ege T. Kavalali, Eric N. Olson, and Lisa M. Monteggia
- 10895 **Afferents from Vocal Motor and Respiratory Effectors Are Recruited during Vocal Production in Juvenile Songbirds**
Sarah W. Bottjer and Michelle To
- 10907 **Persistent Spatial Information in the Frontal Eye Field during Object-Based Short-Term Memory**
Kelsey L. Clark, Behrad Noudoost, and Tirin Moore
- 10915 **Hippocampal-Prefrontal Cortical Circuit Mediates Inhibitory Response Control in the Rat**
Yogita Chudasama, Victoria M. Doobay, and Yuchen Liu
- 10925 **A Gradient in Endogenous Rhythmicity and Oscillatory Drive Matches Recruitment Order in an Axial Motor Pool**
Evdokia Menelaou and David L. McLean

- 10961 **Effect of Locomotor Training in Completely Spinalized Cats Previously Submitted to a Spinal Hemisection**
Marina Martinez, Hugo Delivet-Mongrain, Hugues Leblond, and Serge Rossignol
- 11005 **What and Where Information in the Caudate Tail Guides Saccades to Visual Objects**
Shinya Yamamoto, Ilya E. Monosov, Masaharu Yasuda, and Okihide Hikosaka
- 11017 **Neuronal Activity during a Cued Strategy Task: Comparison of Dorsolateral, Orbital, and Polar Prefrontal Cortex**
Satoshi Tsujimoto, Aldo Genovesio, and Steven P. Wise
- 11032 **Role of Dopamine Tone in the Pursuit of Brain Stimulation Reward**
Giovanni Hernandez, Ivan Trujillo-Pisanty, Marie-Pierre Cossette, Kent Conover, and Peter Shizgal
- 11042 **Stress Modulates the Engagement of Multiple Memory Systems in Classification Learning**
Lars Schwabe and Oliver T. Wolf
- 11120 **Long-Range Parallel Processing and Local Recurrent Activity in the Visual Cortex of the Mouse**
Pierre-Olivier Polack and Diego Contreras

NEUROBIOLOGY OF DISEASE

- 10809 **Reactive Astrocytes Overexpress TSPO and Are Detected by TSPO Positron Emission Tomography Imaging**
Sonia Lavis, Martine Guillermier, Anne-Sophie Hérard, Fanny Petit, Marion Delahaye, Nadja Van Camp, Lucile Ben Haim, Vincent Lebon, Philippe Remy, Frédéric Dollé, Thierry Delzescaux, Gilles Bonvento, Philippe Hantraye, and Carole Escartin
- 10833 **Chronic-Pain-Associated Astrocytic Reaction in the Spinal Cord Dorsal Horn of Human Immunodeficiency Virus-Infected Patients**
Yuqiang Shi, Benjamin B. Gelman, Joshua G. Lisinicchia, and Shao-Jun Tang
- 10841 **Schizophrenia-Like Features in Transgenic Mice Overexpressing Human HO-1 in the Astrocytic Compartment**
Wei Song, Hillel Zukor, Shih-Hsiung Lin, Jacob Hascalovici, Adrienne Liberman, Ayda Tavitian, Jeannie Mui, Hojatollah Vali, Xin-Kang Tong, Sanjeev K. Bhardwaj, Lalit K. Srivastava, Edith Hamel, and Hyman M. Schipper
- 10887 **Normal Midbrain Dopaminergic Neuron Development and Function in miR-133b Mutant Mice**
Mary P. Heyer, Amar K. Pani, Richard J. Smeyne, Paul J. Kenny, and Guoping Feng
- 11067 **Enhanced NMDA Receptor-Dependent Thalamic Excitation and Network Oscillations in Stargazer Mice**
Carolyn J. Lacey, Astra Bryant, Julia Brill, and John R. Huguenard
- 11082 **Anti-NMDA Receptor Encephalitis Antibody Binding Is Dependent on Amino Acid Identity of a Small Region within the GluN1 Amino Terminal Domain**
Amy J. Gleichman, Lynn A. Spruce, Josep Dalmau, Steven H. Seeholzer, and David R. Lynch

11157 **Correction:** The article “Transglutaminase Inhibition Protects against Oxidative Stress-Induced Neuronal Death Downstream of Pathological ERK Activation” by Manuela Basso, Jill Berlin, Li Xia, Sama F. Sleiman, Brendan Ko, Renee Haskew-Layton, Eunhee Kim, Marc A. Antonyak, Richard A. Cerione, Siiri E. Iismaa, Dianna Willis, Sunghoe Cho, and Rajiv R. Ratan appeared on pages 6561–6569 of the May 9, 2012 issue. A correction for that article appears on page 11157.

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.