

The Journal of Neuroscience

July 10, 2013 • Volume 33 Number 28 • www.jneurosci.org



Cover legend: New neurons are continuously generated in the dentate gyrus of the adult mammalian hippocampus throughout life. Shown are retrovirally labeled adult-born dentate granule neurons in a horizontal view of seamlessly reconstructed intact mouse hippocampus using a serial end-block imaging technique. Cover by Gerald Sun. For more information, see Sun, Sailor et al. (pages 11400–11411).

i This Week in The Journal

Journal Club

- 11325 **Entrainment of Neural Activity Using Transcranial Magnetic Stimulation**
Dobromir Rahnev
- 11327 **Mechanisms behind Perisaccadic Increase of Perception**
Martijn G. van Koningsbruggen and Antimo Buonocore

Brief Communications

- 11599 **Emergence of Deletions during Treadmill Locomotion as a Function of Supraspinal and Sensory Inputs**
Marina Martinez, Marius Tuznik, Hugo Delivet-Mongrain, and Serge Rossignol

Articles

CELLULAR/MOLECULAR

- 11432 **Differential Control of Thrombospondin over Synaptic Glycine and AMPA Receptors in Spinal Cord Neurons**
Laetitia Hennekinne, Sabrina Colasse, Antoine Triller, and Marianne Renner
- 11440 **Rapid Suppression of Inhibitory Synaptic Transmission by Retinoic Acid**
Federica Sarti, Zhenjie Zhang, Jessica Schroeder, and Lu Chen
- 11451 **Distinctive Changes in Plasma Membrane Phosphoinositides Underlie Differential Regulation of TRPV1 in Nociceptive Neurons**
Viktor Lukacs, Yevgen Yudin, Gerald R. Hammond, Esseim Sharma, Kiyoko Fukami, and Tibor Rohacs
- 11479 **TLR7 Negatively Regulates Dendrite Outgrowth through the Myd88 – c-Fos – IL-6 Pathway**
Hsin-Yu Liu, Yun-Fen Hong, Chiao-Ming Huang, Chiung-Ya Chen, Tzyy-Nan Huang, and Yi-Ping Hsueh
- 11618 **Distinct Roles for Somatically and Dendritically Synthesized Brain-Derived Neurotrophic Factor in Morphogenesis of Dendritic Spines**
Lauren L. Orefice, Emily G. Waterhouse, John G. Partridge, Rupa R. Lachandani, Stefano Vicini, and Baoji Xu
- 11643 **Baclofen and Other GABA_B Receptor Agents Are Allosteric Modulators of the CXCL12 Chemokine Receptor CXCR4**
Alice Guyon, Amanda Kussrow, Ian Roys Olmsted, Guillaume Sandoz, Darryl J. Bornhop, and Jean-Louis Nahon

11677 **Input-Output Features of Anatomically Identified CA3 Neurons during Hippocampal Sharp Wave/Ripple Oscillation *In Vitro***
Norbert Hájos, Mária R. Karlócai, Beáta Németh, István Ulbert, Hannah Monyer, Gábor Szabó, Ferenc Erdélyi, Tamás F. Freund, and Attila I. Gulyás

11703 **Spinal μ and δ Opioids Inhibit Both Thermal and Mechanical Pain in Rats**
Audrey Normandin, Philippe Luccarini, Jean-Louis Molat, Louis Gendron, and Radhouane Dallel

DEVELOPMENT/PLASTICITY/REPAIR

11329 **The Kinesin-2 Family Member KIF3C Regulates Microtubule Dynamics and Is Required for Axon Growth and Regeneration**
Laura F. Gumy, Daniel J. Chew, Elena Tortosa, Eugene A. Katrukha, Lukas C. Kapitein, Aviva M. Tolkovsky, Casper C. Hoogenraad, and James W. Fawcett

11361 **Calcium Release-Dependent Actin Flow in the Leading Process Mediates Axophilic Migration**
B. Ian Hutchins, Ulrike Klenke, and Susan Wray

11400 **Seamless Reconstruction of Intact Adult-Born Neurons by Serial End-Block Imaging Reveals Complex Axonal Guidance and Development in the Adult Hippocampus**
Gerald J. Sun, Kurt A. Sailor, Qasim A. Mahmood, Nikhil Chavali, Kimberly M. Christian, Hongjun Song, and Guo-li Ming

11464 **TrkB Signaling Directs the Incorporation of Newly Generated Periglomerular Cells in the Adult Olfactory Bulb**
Matteo Bergami, Beatrice Vignoli, Elisa Motori, Simone Pifferi, Emanuela Zuccaro, Anna Menini, and Marco Canossa

11715 **Enriched Early Life Experiences Reduce Adult Anxiety-Like Behavior in Rats: A Role for Insulin-Like Growth Factor 1**
Sara Baldini, Laura Restani, Laura Baroncelli, Maila Coltelli, Roberta Franco, Maria Cristina Cenni, Lamberto Maffei, and Nicoletta Berardi

SYSTEMS/CIRCUITS

11372 **Layer 4 in Primary Visual Cortex of the Awake Rabbit: Contrasting Properties of Simple Cells and Putative Feedforward Inhibitory Interneurons**
Jun Zhuang (庄骏), Carl R. Stoelzel, Yulia Bereshpolova, Joseph M. Huff, Xiaojuan Hei (黑晓娟), Jose-Manuel Alonso, and Harvey A. Swadlow

11412 **Reevaluation of the Beam and Radial Hypotheses of Parallel Fiber Action in the Cerebellar Cortex**
Samuel W. Cramer, Wangcai Gao, Gang Chen, and Timothy J. Ebner

11425 **Widespread Modulation of Cerebral Perfusion Induced during and after Transcranial Direct Current Stimulation Applied to the Left Dorsolateral Prefrontal Cortex**
Charlotte J. Stagg, Richard L. Lin, Melvin Mezue, Andrew Segerdahl, Yazhuo Kong, Jingyi Xie, and Irene Tracey

11494 **Transformation of Receptive Field Properties from Lateral Geniculate Nucleus to Superficial V1 in the Tree Shrew**
Stephen D. Van Hooser, Arani Roy, Heather J. Rhodes, Julie H. Culp, and David Fitzpatrick

11515 **Emergence of Dynamic Memory Traces in Cortical Microcircuit Models through STDP**
Stefan Klampfl and Wolfgang Maass

11530 **Two Projection Streams from Macaque V1 to the Pale Cytochrome Oxidase Stripes of V2**
Frederick Federer, Delaney Williams, Jennifer M. Ichida, Sam Merlin, and Alessandra Angelucci

- 11724 **Response Selectivity Is Correlated to Dendritic Structure in Parvalbumin-Expressing Inhibitory Neurons in Visual Cortex**
Caroline A. Runyan and Mriganka Sur

BEHAVIORAL/COGNITIVE

- 11346 **Intrinsic Structure of Visual Exemplar and Category Representations in Macaque Brain**
Ning Liu (刘宁), Nikolaus Kriegeskorte, Marieke Mur, Fadila Hadj-Bouziane, Wen-Ming Luh, Roger B. H. Tootell, and Leslie G. Ungerleider
- 11390 **Ecto-5'-Nucleotidase (CD73)-Mediated Formation of Adenosine Is Critical for the Striatal Adenosine A_{2A} Receptor Functions**
Elisabete Augusto, Marco Matos, Jean Sévigny, Ali El-Tayeb, Margaret S. Bynoe, Christa E. Müller, Rodrigo A. Cunha, and Jiang-Fan Chen
- 11506 **Proximodistal Segregation of Nonspatial Information in CA3: Preferential Recruitment of a Proximal CA3-Distal CA1 Network in Nonspatial Recognition Memory**
Nozomu H. Nakamura, Vera Flasbeck, Nicolas Maingret, Takashi Kitsukawa, and Magdalena M. Sauvage
- 11540 ***In Vivo* Two-Photon Ca²⁺ Imaging Reveals Selective Reward Effects on Stimulus-Specific Assemblies in Mouse Visual Cortex**
Pieter M. Goltstein, Emily B. J. Coffey, Pieter R. Roelfsema, and Cyriel M. A. Pennartz
- 11573 **Amodal Processing in Human Prefrontal Cortex**
Benjamin J. Tamber-Rosenau, Paul E. Dux, Michael N. Tombu, Christopher L. Asplund, and René Marois
- 11668 **Direct-Pathway Striatal Neurons Regulate the Retention of Decision-Making Strategies**
Susan M. Ferguson, Paul E. M. Phillips, Bryan L. Roth, Jürgen Wess, and John F. Neumaier
- 11692 **Predictive Suppression of Cortical Excitability and Its Deficit in Schizophrenia**
Peter Lakatos, Charles E. Schroeder, David I. Leitman, and Daniel C. Javitt
- 11734 **Taste Familiarity Is Inversely Correlated with Arc/Arg3.1 Hemispheric Lateralization**
Sharon Inberg, Alina Elkobi, Efrat Edri, and Kobi Rosenblum

NEUROBIOLOGY OF DISEASE

- 11556 **Evidence for a Gender-Specific Protective Role of Innate Immune Receptors in a Model of Perinatal Brain Injury**
Pedro M. Pimentel-Coelho, Jean-Philippe Michaud, and Serge Rivest
- 11588 **Small Peptides against the Mutant SOD1/Bcl-2 Toxic Mitochondrial Complex Restore Mitochondrial Function and Cell Viability in Mutant SOD1-Mediated ALS**
Wenzhi Tan (谭文之), Nicole Naniche, Alexey Bogush, Steve Pedrini, Davide Trotti, and Piera Pasinelli
- 11606 ***Trans*-Dominant Negative Effects of Pathogenic PSEN1 Mutations on γ -Secretase Activity and A β Production**
Elizabeth A. Heilig, Usha Gutti, Tara Tai, Jie Shen, and Raymond J. Kelleher III
- 11633 **Tocopherol Derivative TFA-12 Promotes Myelin Repair in Experimental Models of Multiple Sclerosis**
Benoit Blanchard, Tony Heurtaux, Corina Garcia, Natalia M. Moll, Céline Caillava, Luc Grandbarbe, Armelle Klosptein, Christophe Kerninon, Magali Frah, Djalil Coowar, Anne Baron-Van Evercooren, Eleonora Morga, Paul Heuschling, and Brahim Nait Oumesmar

11655 **Aberrant Restoration of Spines and their Synapses in L-DOPA-Induced Dyskinesia: Involvement of Corticostriatal but Not Thalamostriatal Synapses**

Yiyue Zhang, Gloria E. Meredith, Nasya Mendoza-Elias, David J. Rademacher, Kuei Y. Tseng, and Kathy Steece-Collier

11744 **Retraction:** The article “The Existence of FGFR1-5-HT1A Receptor Heterocomplexes in Midbrain 5-HT Neurons of the Rat: Relevance for Neuroplasticity” by Dasiel O. Borroto-Escuela, Wilber Romero-Fernandez, Mileidys Pérez-Alea, Manuel Narvaez, Alexander O. Tarakanov, Giuseppa Mudó, Luigi F. Agnati, Francisco Ciruela, Natale Belluardo, and Kjell Fuxe appeared on pages 6295–6303 of the May 2, 2012 issue. A retraction for that article appears on page 11744.

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.