

May 4, 2016 • Volume 36 Number 18 • www.jneurosci.org



Cover legend: This image shows dentate granule cells in the hippocampus of an adult mouse that lacks TRIM9 ubiquitin ligase. These cells, labeled with red and green florescent proteins, exhibit occasional ectopic migration into the molecular layer. For more information, see the article by Winkle, Olsen et al. (pages 4940 – 4958).

i This Week in The Journal

Journal Club

4907 Diminished Dopamine: Timing, Neuroanatomy, or Drug History? Kurt M. Fraser and Joshua L. Haight

Brief Communications

4910 Prolonged Type 1 Metabotropic Glutamate Receptor Dependent Synaptic Signaling
 Contributes to Spino-Cerebellar Ataxia Type 1
 Emmet M. Power, Adrienne Morales, and Ruth M. Empson

Articles

CELLULAR/MOLECULAR

5107 Deficiency of Isoprenylcysteine Carboxyl Methyltransferase (ICMT) Leads to Progressive Loss of Photoreceptor Function Jeffrey R. Christiansen, Nachiket D. Pendse, Saravanan Kolandaivelu, Martin O. Bergo, Stephen G. Young, and Visvanathan Ramamurthy

5144 Inhibition of the JAK/STAT Pathway Protects Against α-Synuclein-Induced Neuroinflammation and Dopaminergic Neurodegeneration
Hongwei Qin, Jessica A. Buckley, Xinru Li, Yudong Liu, Thomas H. Fox III, Gordon P. Meares, Hao Yu, Zhaoqi Yan, Ashley S. Harms, Yufeng Li, David G. Standaert, and Etty N. Benveniste

DEVELOPMENT/PLASTICITY/REPAIR

4940 Trim9 Deletion Alters the Morphogenesis of Developing and Adult-Born Hippocampal Neurons and Impairs Spatial Learning and Memory Cortney C. Winkle, Reid H. J. Olsen, Hyojin Kim, Sheryl S. Moy, Juan Song, and Stephanie L. Gupton

SYSTEMS/CIRCUITS

4917 On the Role of the Pedunculopontine Nucleus and Mesencephalic Reticular Formation in Locomotion in Nonhuman Primates
Laurent Goetz, Brigitte Piallat, Manik Bhattacharjee, Hervé Mathieu, Olivier David, and Stéphan Chabardès

4976 Striatopallidal Neuron NMDA Receptors Control Synaptic Connectivity, Locomotor, and Goal-Directed Behaviors
 Laurie Lambot, Elena Chaves Rodriguez, Delphine Houtteman, Yuquing Li,

Serge N. Schiffmann, David Gall, and Alban de Kerchove d'Exaerde

5034 Glutamatergic Preoptic Area Neurons That Express Leptin Receptors Drive Temperature-Dependent Body Weight Homeostasis

Sangho Yu, Emily Qualls-Creekmore, Kavon Rezai-Zadeh, Yanyan Jiang, Hans-Rudolf Berthoud, Christopher D. Morrison, Andrei V. Derbenev, Andrea Zsombok, and Heike Münzberg

5071 Effects of Electrical Stimulation in the Inferior Colliculus on Frequency Discrimination by Rhesus Monkeys and Implications for the Auditory Midbrain Implant

Daniel S. Pages, Deborah A. Ross, Vanessa M. Puñal, Shruti Agashe, Isaac Dweck, Jerel Mueller, Warren M. Grill, Blake S. Wilson, and Jennifer M. Groh

5170 The Proinflammatory Cytokine Interleukin 18 Regulates Feeding by Acting on the Bed Nucleus of the Stria Terminalis

Walter Francesconi, Manuel Sánchez-Alavez, Fulvia Berton, Silvia Alboni, Cristina Benatti, Simone Mori, William Nguyen, Eric Zorrilla, Gianluca Moroncini, Fabio Tascedda, and Bruno Conti

BEHAVIORAL/COGNITIVE

4930 Optogenetic Stimulation of Prefrontal Glutamatergic Neurons Enhances Recognition Memory

Abigail Benn, Gareth R. I. Barker, Sarah A. Stuart, Eva v. L. Roloff, Anja G. Teschemacher, E. Clea Warburton, and Emma S. J. Robinson

5003 Congruence of Inherent and Acquired Values Facilitates Reward-Based Decision-Making

Samson Chien, Antonius Wiehler, Michael Spezio, and Jan Gläscher

- 5013 Different Brain Circuitries Mediating Controllable and Uncontrollable Pain Anne-Kathrin Bräscher, Susanne Becker, Marie-Eve Hoeppli, and Petra Schweinhardt
- 5026 Prestimulus Theta Oscillations and Connectivity Modulate Pain Perception Philipp Taesler and Michael Rose
- 5047 Ventromedial Prefrontal Cortex Damage Is Associated with Decreased Ventral Striatum Volume and Response to Reward

Maia S. Pujara, Carissa L. Philippi, Julian C. Motzkin, Mustafa K. Baskaya, and Michael Koenigs

5115 The Insula Mediates Access to Awareness of Visual Stimuli Presented Synchronously to the Heartbeat

Roy Salomon, Roberta Ronchi, Jonathan Dönz, Javier Bello-Ruiz, Bruno Herbelin, Remi Martet, Nathan Faivre, Karl Schaller, and Olaf Blanke

5160 Cannabidiol Counteracts Amphetamine-Induced Neuronal and Behavioral Sensitization of the Mesolimbic Dopamine Pathway through a Novel mTOR/p70S6 Kinase Signaling Pathway

Justine Renard, Michael Loureiro, Laura G. Rosen, Jordan Zunder, Cleusa de Oliveira, Susanne Schmid, Walter J. Rushlow, and Steven R. Laviolette

NEUROBIOLOGY OF DISEASE

4959 Functional Indicators of Glutamate Transport in Single Striatal Astrocytes and the Influence of Kir4.1 in Normal and Huntington Mice Anton Dvorzhak, Tatyana Vagner, Knut Kirmse, and Rosemarie Grantyn

4993 Compromised Dopaminergic Encoding of Reward Accompanying Suppressed Willingness to Overcome High Effort Costs Is a Prominent Prodromal Characteristic of the Q175 Mouse Model of Huntington's Disease

Dan P. Covey, Hannah M. Dantrassy, Natalie E. Zlebnik, Iness Gildish, and Joseph F. Cheer

- 5055 The Complement System Component C5a Produces Thermal Hyperalgesia via Macrophage-to-Nociceptor Signaling That Requires NGF and TRPV1 Leonid P. Shutov, Charles A. Warwick, Xiaoyu Shi, Aswini Gnanasekaran, Andrew J. Shepherd, Durga P. Mohapatra, Trent M. Woodruff, J. David Clark, and Yuriy M. Usachev
- 5084 Conversion of Synthetic A β to *In Vivo* Active Seeds and Amyloid Plaque Formation in a Hippocampal Slice Culture Model

Renata Novotny, Franziska Langer, Jasmin Mahler, Angelos Skodras, Andreas Vlachos, Bettina M. Wegenast-Braun, Stephan A. Kaeser, Jonas J. Neher, Yvonne S. Eisele, Marie J. Pietrowski, K. Peter R. Nilsson, Thomas Deller, Matthias Staufenbiel, Bernd Heimrich, and Mathias Jucker

5094 Defects in Neuromuscular Transmission May Underlie Motor Dysfunction in Spinal and Bulbar Muscular Atrophy

Youfen Xu, Katherine Halievski, Casey Henley, William D. Atchison, Masahisa Katsuno, Hiroaki Adachi, Gen Sobue, S. Marc Breedlove, and Cynthia L. Jordan

5128 Oligodendroglial TNFR2 Mediates Membrane TNF-Dependent Repair in Experimental Autoimmune Encephalomyelitis by Promoting Oligodendrocyte Differentiation and Remyelination

Pernille M. Madsen, Dario Motti, Shaffiat Karmally, David E. Szymkowski, Kate Lykke Lambertsen, John R. Bethea, and Roberta Brambilla

- 5181 Correction: The article "An Allometric Analysis of Sex and Sex Chromosome Dosage Effects on Subcortical Anatomy in Humans" by Paul Kirkpatrick Reardon, Liv Clasen, Jay N. Giedd, Jonathan Blumenthal, Jason P. Lerch, M. Mallar Chakravarty, and Armin Raznahan, appeared on pages 2438 –2448 of the February 24, 2016 issue A correction for this article appears on page 5181.
- 5183 Correction: The article "Evidence for the Integration of Stress-Related Signals by the Rostral Posterior Hypothalamic Nucleus in the Regulation of Acute and Repeated Stress-Evoked Hypothalamo Pituitary-Adrenal Response in Rat" by Tara J. Nyhuis, Cher V. Masini, Heidi E. W. Day, and Serge Campeau, which appeared on pages 795–805 of the January 20, 2016 issue. A correction for this article appears on page 5183.

Correction: The "Temporal Prediction in lieu of Periodic Stimulation" by Benjaminn Morillon, Charles E. Schroeder, Valentin Wyart, and Luc H. Arnal, which appeared on pages 2342–2347 of the February 24, 2016. A correction for this article appears on page 5183.

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.

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.