

The Journal of Neuroscience

March 6, 2013 • Volume 33 Number 10 • www.jneurosci.org



Cover legend: The rostromedial prefrontal cortex in rabbits potently inhibits acquired eyelid responses until the need for the acquired response is fully confirmed. In this regard, the rostromedial prefrontal cortex seems to act as flip-flop mechanism controlling the expression of reflex and acquired behaviors depending on the environmental circumstances. Photography by J.A. Santos and J.C. López-Ramos; editing by R. Leal-Campanario. For more information, see the article by Leal-Campanario in this issue (pages 4378–4386).

i This Week in The Journal

Journal Club

- 4213 **Where Is the Anterior Temporal Lobe and What Does It Do?**
Michael F. Bonner and Amy R. Price

Brief Communications

- 4234 **Inhibition of a SNARE-Sensitive Pathway in Astrocytes Attenuates Damage following Stroke**
Dustin J. Hines and Philip G. Haydon
- 4482 **The Mental Cost of Cognitive Enhancement**
Teresa Iuculano and Roi Cohen Kadosh
- 4536 **Effect of Limb Lengthening on Internodal Length and Conduction Velocity of Peripheral Nerve**
A. Hamish Simpson, Thomas H. Gillingwater, Heather Anderson, David Cottrell, Diane L. Sherman, Richard R. Ribchester, and Peter J. Brophy

Articles

CELLULAR/MOLECULAR

- 4265 **Serotonin Facilitates Peripheral Pain Sensitivity in a Manner That Depends on the Nonproton Ligand Sensing Domain of ASIC3 Channel**
Xiang Wang, Wei-Guang Li, Ye Yu, Xian Xiao, Jin Cheng, Wei-Zheng Zeng, Zhong Peng, Michael Xi Zhu, and Tian-Le Xu
- 4308 **Membrane Trafficking of NADPH Oxidase p47^{phox} in Paraventricular Hypothalamic Neurons Parallels Local Free Radical Production in Angiotensin II Slow-Pressor Hypertension**
Christal G. Coleman, Gang Wang, Giuseppe Faraco, Jose Marques Lopes, Elizabeth M. Waters, Teresa A. Milner, Costantino Iadecola, and Virginia M. Pickel
- 4317 **Calpain-2-Mediated PTEN Degradation Contributes to BDNF-Induced Stimulation of Dendritic Protein Synthesis**
Victor Briz, Yu-Tien Hsu, Yi Li, Erin Lee, Xiaoning Bi, and Michel Baudry

- 4369 **Differential Control of Opioid Antinociception to Thermal Stimuli in a Knock-In Mouse Expressing Regulator of G-Protein Signaling-Insensitive $G\alpha_o$ Protein**
Jennifer T. Lamberts, Chelsea E. Smith, Ming-Hua Li, Susan L. Ingram, Richard R. Neubig, and John R. Traynor
- 4395 **Noddy, a Mouse Harboring a Missense Mutation in Protocadherin-15, Reveals the Impact of Disrupting a Critical Interaction Site between Tip-Link Cadherins in Inner Ear Hair Cells**
Ruishuang Geng, Marcos Sotomayor, Kimberly J. Kinder, Suhasini R. Gopal, John Gerka-Stuyt, Daniel H.-C. Chen, Rachel E. Hardisty-Hughes, Greg Ball, Andy Parker, Rachele Gaudet, David Furness, Steve D. Brown, David P. Corey, and Kumar N. Alagramam
- 4405 **Functional Mechanotransduction Is Required for Cisplatin-Induced Hair Cell Death in the Zebrafish Lateral Line**
Andrew J. Thomas, Dale W. Hailey, Tamara M. Stawicki, Patricia Wu, Allison B. Coffin, Edwin W. Rubel, David W. Raible, Julian A. Simon, and Henry C. Ou
- 4434 **Lack of Evidence for Vesicular Glutamate Transporter Expression in Mouse Astrocytes**
Dongdong Li, Karine Héroult, Kätlin Silm, Alexis Evrard, Sonja Wojcik, Martin Oheim, Etienne Herzog, and Nicole Ropert
- 4456 **Disruption of the Presynaptic Cytomatrix Protein Bassoon Degrades Ribbon Anchorage, Multiquantal Release, and Sound Encoding at the Hair Cell Afferent Synapse**
Zhizi Jing, Mark A. Rutherford, Hideki Takago, Thomas Frank, Anna Fejtova, Darina Khimich, Tobias Moser, and Nicola Strenzke
- 4514 **Stabilization of Actin Bundles by a Dynamin 1/Cortactin Ring Complex Is Necessary for Growth Cone Filopodia**
Hiroshi Yamada, Tadashi Abe, Ayano Satoh, Nana Okazaki, Shota Tago, Kinue Kobayashi, Yumi Yoshida, Yoshiya Oda, Masami Watanabe, Kazuhito Tomizawa, Hideki Matsui, and Kohji Takei
- 4550 **Precise Neural Stimulation in the Retina Using Focused Ultrasound**
Michael D. Menz, Ömer Oralkan, Pierre T. Khuri-Yakub, and Stephen A. Baccus
- 4614 **Pituitary Adenylate Cyclase 1 Receptor Internalization and Endosomal Signaling Mediate the Pituitary Adenylate Cyclase Activating Polypeptide-Induced Increase in Guinea Pig Cardiac Neuron Excitability**
Laura A. Merriam, Caitlin N. Baran, Beatrice M. Girard, Jean C. Hardwick, Victor May, and Rodney L. Parsons

DEVELOPMENT/PLASTICITY/REPAIR

- 4241 **Perineurial Glia Require Notch Signaling during Motor Nerve Development but Not Regeneration**
Laura A. Binari, Gwendolyn M. Lewis, and Sarah Kucenas
- 4349 **Endocannabinoid-Dependent Long-Term Depression in a Nociceptive Synapse Requires Coordinated Presynaptic and Postsynaptic Transcription and Translation**
Sharleen Yuan and Brian D. Burrell
- 4424 **Plasticity of Hypothalamic Dopamine Neurons during Lactation Results in Dissociation of Electrical Activity and Release**
Nicola Romanò, Siew H. Yip, David J. Hodson, Anne Guillou, Sébastien Parnaudeau, Siobhan Kirk, François Tronche, Xavier Bonnefont, Paul Le Tissier, Stephen J. Bunn, Dave R. Grattan, Patrice Mollard, and Agnès O. Martin

4468 **SPARC Regulates Microgliosis and Functional Recovery following Cortical Ischemia**
Samantha M. Lloyd-Burton, Elisa M. York, Mohammad A. Anwar,
Adele J. Vincent, and A. Jane Roskams

4570 **A Sympathetic Neuron Autonomous Role for Egr3-Mediated Gene Regulation in Dendrite Morphogenesis and Target Tissue Innervation**
David H. Quach, Michelle Oliveira-Fernandes, Katherine A. Gruner,
and Warren G. Tourtellotte

SYSTEMS/CIRCUITS

4253 **Spinal Efference Copy Signaling and Gaze Stabilization during Locomotion in Juvenile *Xenopus* Frogs**
Géraldine von Uckermann, Didier Le Ray, Denis Combes, Hans Straka,
and John Simmers

4359 **Adaptation to Speed in Macaque Middle Temporal and Medial Superior Temporal Areas**
Nicholas S. C. Price and Richard T. Born

BEHAVIORAL/COGNITIVE

4339 **Multivoxel Patterns Reveal Functionally Differentiated Networks Underlying Auditory Feedback Processing of Speech**
Zane Z. Zheng, Alejandro Vicente-Grabovetsky, Ewen N. MacDonald,
Kevin G. Munhall, Rhodri Cusack, and Ingrid S. Johnsrude

4378 **The Rostral Medial Prefrontal Cortex Regulates the Expression of Conditioned Eyelid Responses in Behaving Rabbits**
Rocío Leal-Campanario, José M. Delgado-García, and Agnès Gruart

4415 **Illusory Movement of Stationary Stimuli in the Visual Periphery: Evidence for a Strong Centrifugal Prior in Motion Processing**
Ruyuan Zhang, Oh-Sang Kwon, and Duje Tadin

4487 **Reward Prediction Error Signal Enhanced by Striatum–Amygdala Interaction Explains the Acceleration of Probabilistic Reward Learning by Emotion**
Noriya Watanabe, Masamichi Sakagami, and Masahiko Haruno

4494 **The Critical Role of Sleep Spindles in Hippocampal-Dependent Memory: A Pharmacology Study**
Sara C. Mednick, Elizabeth A. McDevitt, James K. Walsh, Erin Wamsley,
Martin Paulus, Jennifer C. Kanady, and Sean P. A. Drummond

4561 **Fear Extinction Memory Consolidation Requires Potentiation of Pontine-Wave Activity during REM Sleep**
Subimal Datta and Matthew W. O'Malley

4584 **A Developmental Shift from Positive to Negative Connectivity in Human Amygdala–Prefrontal Circuitry**
Dylan G. Gee, Kathryn L. Humphreys, Jessica Flannery, Bonnie Goff,
Eva H. Telzer, Mor Shapiro, Todd A. Hare, Susan Y. Bookheimer,
and Nim Tottenham

4594 **Brain Changes Associated with Postural Training in Patients with Cerebellar Degeneration: A Voxel-Based Morphometry Study**

Roxana Gabriela Burciu, Nicole Fritsche, Oliver Granert, Lutz Schmitz, Nina Spönemann, Jürgen Konczak, Nina Theysohn, Marcus Gerwig, Thilo van Eimeren, and Dagmar Timmann

4605 **Protein Phosphatase-Dependent Circadian Regulation of Intermediate-Term Associative Memory**

Maximilian Michel, Jacob S. Gardner, Charity L. Green, Chelsea L. Organ, and Lisa C. Lyons

NEUROBIOLOGY OF DISEASE

4216 **Microglia Regulate the Number of Neural Precursor Cells in the Developing Cerebral Cortex**

Christopher L. Cunningham, Verónica Martínez-Cerdeño, and Stephen C. Noctor

4280 **Shift from Extracellular Signal-Regulated Kinase to AKT/cAMP Response Element-Binding Protein Pathway Increases Survival-Motor-Neuron Expression in Spinal-Muscular-Atrophy-Like Mice and Patient Cells**

Julien Branchu, Olivier Biondi, Farah Chali, Thibault Collin, Felix Leroy, Kamel Mamchaoui, Joelle Makoukji, Claude Pariset, Philippe Lopes, Charbel Massaad, Christophe Chanoine, and Frédéric Charbonnier

4295 **Behavioral and Structural Responses to Chronic Cocaine Require a Feedforward Loop Involving Δ FosB and Calcium/Calmodulin-Dependent Protein Kinase II in the Nucleus Accumbens Shell**

Alfred J. Robison, Vincent Vialou, Michelle Mazei-Robison, Jian Feng, Saïd Kourrich, Miles Collins, Sunmee Wee, George Koob, Gustavo Turecki, Rachael Neve, Mark Thomas, and Eric J. Nestler

4329 **Adenosine Transporter ENT1 Regulates the Acquisition of Goal-Directed Behavior and Ethanol Drinking through A_{2A} Receptor in the Dorsomedial Striatum**

Hyung Wook Nam, David J. Hinton, Na Young Kang, Taehyun Kim, Moonnoh R. Lee, Alfredo Oliveros, Chelsea Adams, Christina L. Ruby, and Doo-Sup Choi

4387 **Deletion of *Abca7* Increases Cerebral Amyloid- β Accumulation in the J20 Mouse Model of Alzheimer's Disease**

Woojin S. Kim, Hongyun Li, Kalani Ruberu, Sharon Chan, David A. Elliott, Jac Kee Low, David Cheng, Tim Karl, and Brett Garner

4505 **Cortical–Amygdalar Circuit Dysfunction in a Genetic Mouse Model of Serotonin Deficiency**

Kafui Dzirasa, Sunil Kumar, Benjamin D. Sachs, Marc G. Caron, and Miguel A. L. Nicolelis

4527 **Predominance of D2 Receptors in Mediating Dopamine's Effects in Brain Metabolism: Effects of Alcoholism**

Nora D. Volkow, Dardo Tomasi, Gene-Jack Wang, Frank Telang, Joanna S. Fowler, Jean Logan, L. Jayne Maynard, and Christopher T. Wong

4540 **Parkinson's Disease: Increased Motor Network Activity in the Absence of Movement**

Ji Hyun Ko, Hideo Mure, Chris C. Tang, Yilong Ma, Vijay Dhawan, Phoebe Spetsieris, and David Eidelberg

4623 **Correction:** The article “Neuroestrogens Rapidly Regulate Sexual Motivation But Not Performance” by Aurore L. Seredynski, Jacques Balthazart, Virginie J. Christophe, Gregory F. Ball, and Charlotte A. Cornil appeared on pages 164–174 of the January 2, 2013 issue. A correction for that article appears on page 4623.

Correction: The article “Glutamate Receptor 1 Phosphorylation at Serine 831 and 845 Modulates Seizure Susceptibility and Hippocampal Hyperexcitability after Early Life Seizures” by Sanjay N. Rakhade, Erin F. Fitzgerald, Peter M. Klein, Chengwen Zhou, Hongyu Sun, Richard L. Hunganir, and Frances E. Jensen appeared on pages 17800–17812 of the December 5, 2012 issue. A correction for that article appears on page 4623.

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.