Cover legend: Pseudocolored image of immunofluorescent labeling of neurons (NeuN, red) and astrocytes (GFAP, blue) in the hippocampal CA1 pyramidal cell layer of transgenic mice overexpressing truncated amyloid-β. In these animals, formation of a highly neurotoxic amyloid-β species, pyro-Glu-Aβ, induces progressing astrogliosis and neuronal loss. For more information, see the article by Alexandru et al. in this issue (pages 12790–12801).

This Week in The Journal

Journal Club

12705 Does Meditation Reduce Pain through a Unique Neural Mechanism?
Tim V. Salomons and Aaron Kucyi

Brief Communications

12900 Attentional Modulation of fMRI Responses in Human V1 Is Consistent with Distinct Spatial Maps for Chromatically Defined Orientation and Contrast
Joo-Hyun Song, Jess Rowland, Robert M. McPeek, and Alex R. Wade

Articles

CELLULAR/MOLECULAR

12916 Upregulation of KCC2 Activity by Zinc-Mediated Neurotransmission via the mZnR/GPR39 Receptor
Ehud Chorin, Ofir Vinograd, Ilya Fleidervish, David Gilad, Sharon Herrmann, Israel Sekler, Elias Aizenman, and Michal Hershfinkel

12945 Carbon Nanotube Scaffolds Tune Synaptic Strength in Cultured Neural Circuits: Novel Frontiers in Nanomaterial–Tissue Interactions
Giada Cellot, Francesca Maria Toma, Zeynep Kasap Varley, Jummi Laishram, Ambra Villari, Mildred Quintana, Sara Cipollone, Maurizio Prato, and Laura Ballerini

13015 A Ca²⁺ Threshold for Induction of Spike-Timing-Dependent Depression in the Mouse Striatum
Tomomi Shindou, Mayumi Ochi-Shindou, and Jeffery R. Wickens

DEVELOPMENT/PLASTICITY/REPAIR

12708 Transsynaptic Activity-Dependent Regulation of Axon Branching and Neurotrophin Expression In Vivo
Anda-Alexandra Calinescu, Tiecheng Liu, Michael M. Wang, and Jimo Borjigin

12802 Pitx3 Is a Critical Mediator of GDNF-Induced BDNF Expression in Nigrostriatal Dopaminergic Neurons
Changgeng Peng, Liviu Aron, Rüdiger Klein, Meng Li, Wolfgang Wurst, Nilima Prakash, and Weidong Le
<table>
<thead>
<tr>
<th>Volume</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>12982</td>
<td>Mitochondrial Ca(^{2+}) Uptake Is Essential for Synaptic Plasticity in Pain</td>
<td>Hee Young Kim, Kwan Yeop Lee, Ying Lu, Jigong Wang, Lian Cui, Sang Jeong Kim, Jin Mo Chung, and Kyungsoon Chung</td>
</tr>
<tr>
<td>12716</td>
<td>Acquisition of Neural Learning in Cerebellum and Cerebral Cortex for Smooth Pursuit Eye Movements</td>
<td>Jennifer X. Li, Javier F. Medina, Loren M. Frank, and Stephen G. Lisberger</td>
</tr>
<tr>
<td>12727</td>
<td>Group II/III Metabotropic Glutamate Receptors Exert Endogenous Activity-Dependent Modulation of TRPV1 Receptors on Peripheral Nociceptors</td>
<td>Susan M. Carlton, Shengtai Zhou, Rosann Govea, and Junhui Du</td>
</tr>
<tr>
<td>12738</td>
<td>Synaptic Properties of Thalamic Input to the Subgranular Layers of Primary Somatosensory and Auditory Cortices in the Mouse</td>
<td>Angela N. Vlaene, Iraklis Petrof, and S. Murray Sherman</td>
</tr>
<tr>
<td>12748</td>
<td>Gamma-Band Activation Predicts Both Associative Memory and Cortical Plasticity</td>
<td>Drew B. Headley and Norman M. Weinberger</td>
</tr>
<tr>
<td>12759</td>
<td>Calcineurin and Its Regulator Sra/DSCR1 Are Essential for Sleep in Drosophila</td>
<td>Yasuhiro Nakai, Junjiro Horiuchi, Manabu Tsuda, Satomi Takeo, Shin Akahori, Takashi Matsuo, Kazuhiro Kume, and Toshiro Aigaki</td>
</tr>
<tr>
<td>12767</td>
<td>Dynamics of Population Response to Changes of Motion Direction in Primary Visual Cortex</td>
<td>Wei Wu, Paul H. Tiesinga, Thomas R. Tucker, Stephen R. Mitroff, and David Fitzpatrick</td>
</tr>
<tr>
<td>12816</td>
<td>Contextual Novelty Modulates the Neural Dynamics of Reward Anticipation</td>
<td>Nico Bunzeck, Marc Guitart-Masip, Ray J. Dolan, and Emrah Düzel</td>
</tr>
<tr>
<td>12823</td>
<td>Spinal 5-HT(_3) Receptor Activation Induces Behavioral Hypersensitivity via a Neuronal-Glial-Neuronal Signaling Cascade</td>
<td>Ming Gu, Kan Miyoshi, Ronald Dubner, Wei Guo, Shiping Zou, Ke Ren, Koichi Noguchi, and Feng Wei</td>
</tr>
<tr>
<td>12855</td>
<td>Variability of the Relationship between Electrophysiology and BOLD-fMRI across Cortical Regions in Humans</td>
<td>Christopher R. Conner, Timothy M. Ellmore, Thomas A. Pieters, Michael A. DiSano, and Nitin Tandon</td>
</tr>
<tr>
<td>12866</td>
<td>Nucleus Accumbens Dopamine/Glutamate Interaction Switches Modes to Generate Desire versus Dread: D(_1) Alone for Appetitive Eating But D(_1) and D(_2) Together for Fear</td>
<td>Jocelyn M. Richard and Kent C. Berridge</td>
</tr>
<tr>
<td>12906</td>
<td>Direct Structural Connections between Voice- and Face-Recognition Areas</td>
<td>Helen Blank, Alfred Anwander, and Katharina von Kriegstein</td>
</tr>
</tbody>
</table>
12936 Differential BOLD Activity Associated with Subjective and Objective Reports during "Blindsight" in Normal Observers
Guido Hesselmann, Martin Hebart, and Rafael Malach

12954 Default Mode of Brain Function in Monkeys
Dante Mantini, Annelis Gerits, Koen Nelissen, Jean-Baptiste Durand, Olivier Joly, Luciano Simone, Hiromasa Sawamura, Claire Ward, Guy A. Orban, Randy L. Buckner, and Wim Vanduffel

12963 Matrix Metalloproteinase-9 Contributes to Kindled Seizure Development in Pentylentetrazole-Treated Mice by Converting Pro-BDNF to Mature BDNF in the Hippocampus

12972 Global Functional Connectivity Deficits in Schizophrenia Depend on Behavioral State
Roy Salomon, Maya Bleich-Cohen, Avital Hahamy-Dubossarsky, Ilan Dinstien, Ronit Weizman, Michael Poyurovsky, Marina Kupchik, Moshe Kotler, Talma Hendler, and Rafael Malach

NEUROBIOLOGY OF DISEASE

12778 Abnormalities in the Climbing Fiber-Purkinje Cell Circuitry Contribute to Neuronal Dysfunction in ATXN1[82Q] Mice
Justin A. Barnes, Blake A. Ebner, Lisa A. Duvick, Wangcai Gao, Gang Chen, Harry T. Orr, and Timothy J. Ebner

12790 Selective Hippocampal Neurodegeneration in Transgenic Mice Expressing Small Amounts of Truncated Aβ Is Induced by Pyroglutamate–Aβ Formation

12880 Breathing without CO₂ Chemosensitivity in Conditional Phox2b Mutants
Nelina Ramanantsoa, Marie-Rose Hirsch, Muriel Thoby-Brisson, Véronique Dubreuil, Julien Bouvier, Pierre-Louis Ruffault, Boris Matrot, Gilles Fortin, Jean-François Brunet, Jorge Gallego, and Christo Goridis

12889 Vulnerability to Depression: From Brain Neuroplasticity to Identification of Biomarkers
Aurélie Blugeot, Cyril Rivat, Elodie Bouvier, Jenny Molet, Amandine Mouchard, Brigitte Zeau, Christophe Bernard, Jean-Jacques Benoliel, and Chrystel Becker

12927 Fukutin-Related Protein Alters the Deposition of Laminin in the Eye and Brain
Mark R. Ackroyd, Charlotte Whitmore, Sarah Prior, Manuja Kaluarachchi, Margareta Nikolic, Ulrike Mayer, Francesco Muntoni, and Susan C. Brown

12992 Microglial Cells Contribute to Endogenous Brain Defenses after Acute Neonatal Focal Stroke
Joel V. Faustino, Xia Wang, Cali E. Johnson, Alexander Klibanov, Nikita Derugin, Michael F. Wendland, and Zinaida S. Vexler
Early Changes in Cerebellar Physiology Accompany Motor Dysfunction in the Polyglutamine Disease Spinocerebellar Ataxia Type 3
Vikram G. Shakkottai, Maria do Carmo Costa, James M. Dell’Orco, Ananthakrishnan Sankaranarayanan, Heike Wulff, and Henry L. Paulson

Corrections:


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/ifb_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.