



**Cover legend:** Co-expression of  $\alpha 9$  integrin and kindlin-1 (green) activates a distinctive CNS regeneration program which results in axon regeneration in the spinal cord without abnormal sprouting. For more information, see the article by Cheah, Cheng et al. (pages 4775–4794). Cover image by Menghon Cheah.

4751 This Week in The Journal

## Journal Club

4752 **Expectation Based on Olfactory Cues Impacts Learned Auditory Associations**  
Caroline Chauvie and Anna Schroeder

## Research Articles

### CELLULAR/MOLECULAR

4755 **Subunit-Dependent Surface Mobility and Localization of NMDA Receptors in Hippocampal Neurons Measured Using Nanobody Probes**  
Stepan Kortus, Kristyna Rehakova, Martin Klima, Marharyta Kolcheva, Marek Ladislav, Emily Langore, Petra Barackova, Jakub Netolicky, Anna Misiachna, Katarina Hemelikova, Jana Humpolickova, Dominika Chalupska, Jan Silhan, Martina Kaniakova, Barbora Hrcka Krausova, Evzen Boura, Martin Zapotocky, and Martin Horak

### DEVELOPMENT/PLASTICITY/REPAIR

4775 **Integrin-Driven Axon Regeneration in the Spinal Cord Activates a Distinctive CNS Regeneration Program**  
Menghon Cheah, Yuyan Cheng, Veselina Petrova, Anda Cimpean, Pavla Jendelova, Vivek Swarup, Clifford J. Woolf, Daniel H. Geschwind, and James W. Fawcett

### SYSTEMS/CIRCUITS

4795 **Behavioral State-Dependent Modulation of Prefrontal Cortex Activity by Respiration**  
Shani Folschweiller and Jonas-Frederic Sauer

4808 **Inference of Electrical Stimulation Sensitivity from Recorded Activity of Primate Retinal Ganglion Cells**  
Sasidhar S. Madugula, Ramandeep Vilku, Nishal P. Shah, Lauren E. Grosberg, Alexandra Kling, Alex R. Gogliettino, Huy Nguyen, Paweł Hottowy, Alexander Sher, Alan M. Litke, and E.J. Chichilnisky

4821 **A Visual Pathway into Central Complex for High-Frequency Motion-Defined Bars in *Drosophila***  
Wenlan Duan (段文兰), Yihao Zhang (张艺豪), Xin Zhang (张鑫), Jihua Yang (杨继华), Heying Shan (单鹤赢), Li Liu (刘力), and Hongying Wei (魏虹莹)

4837 **Circuit and Cell-Specific Contributions to Decision Making Involving Risk of Explicit Punishment in Male and Female Rats**

Leah M. Truckenbrod, Sara M. Betzhold, Alexa-Rae Wheeler, John Shallcross, Sarthak Singhal, Scott Harden, Marek Schwendt, Charles J. Frazier, Jennifer L. Bizon, Barry Setlow, and Caitlin A. Orsini

BEHAVIORAL/COGNITIVE

4856 **Pupil Dilation and Microsaccades Provide Complementary Insights into the Dynamics of Arousal and Instantaneous Attention during Effortful Listening**

Claudia Contadini-Wright, Kaho Magami, Nishchay Mehta, and Maria Chait

4867 **Delta-Band Neural Responses to Individual Words Are Modulated by Sentence Processing**

Sophie Slaats, Hugo Weissbart, Jan-Mathijs Schoffelen, Antje S. Meyer, and Andrea E. Martin

4884 **Decreased Thalamic Activity Is a Correlate for Disconnectness during Anesthesia with Propofol, Dexmedetomidine and Sevoflurane But Not S-Ketamine**

Oskari Kantonen, Lauri Laaksonen, Michael Alkire, Annalotta Scheinin, Jaakko Långsjö, Roosa E. Kallionpää, Kaike Kaisti, Linda Radek, Jarkko Johansson, Timo Laitio, Anu Maksimow, Joonas Scheinin, Mikko Nyman, Mika Scheinin, Olof Solin, Tero Vahlberg, Antti Revonsuo, Katja Valli, and Harry Scheinin

4896 **Instant Effects of Semantic Information on Visual Perception**

Alexander Enge, Franziska Süß, and Rasha Abdel Rahman

NEUROBIOLOGY OF DISEASE

4907 **Restoration of Sleep and Circadian Behavior by Autophagy Modulation in Huntington's Disease**

Ankit Sharma, Kavyashree Narasimha, Ravi Manjithaya, and Vasu Sheeba

4926 **Neuronally Derived Soluble Abeta Evokes Cell-Wide Astrocytic Calcium Dysregulation in Absence of Amyloid Plaques *in Vivo***

Patricia Kelly, Maria V. Sanchez-Mico, Steven S. Hou, Sara Whiteman, Alyssa Russ, Eloise Hudry, Michal Arbel-Ornath, Steven M. Greenberg, and Brian J. Bacskai

4941 **Postsynaptic Protein Shank3a Deficiency Synergizes with Alzheimer's Disease Neuropathology to Impair Cognitive Performance in the 3xTg-AD Murine Model**

Olivier Landry, Arnaud François, Méryl-Farelle Oye Mintsu Mi-Mba, Marie-Therese Traversy, Cyntia Tremblay, Vincent Emond, David A. Bennett, Karen H. Gyls, Joseph D. Buxbaum, and Frédéric Calon

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