



**Cover legend:** This image shows the synaptic distribution of the synaptic Ras/Rap GAP SynGAP (green) in an mCherry-labeled hippocampal pyramidal cell (magenta) in culture. For more information, see the Review article by Gamache et al. (pages 1596–1605).

## 1595 This Week in The Journal

### Review

- 1596 **Twenty Years of SynGAP Research: From Synapses to Cognition**  
Timothy R. Gamache, Yoichi Araki, and Richard L. Huganir

### Journal Club

- 1606 **Sense and Action across the Layers of the Rat Posterior Parietal Cortex**  
Maximiliano José Nigro
- 1608 **The Dual Role of Microglia in the Progression of Alzheimer's Disease**  
Kate M. Onuska

### Research Articles

#### CELLULAR/MOLECULAR

- 1611 **Neuronal Glutamatergic Synaptic Clefts Alkalinize Rather Than Acidify during Neurotransmission**  
Michal Stawarski, Roberto X. Hernandez, Touhid Fegghi, Jolanta A. Borycz, Zhiyuan Lu, Andrea B. Agarwal, Kelly D. Reihl, Rubens Tavora, A.W.C. Lau, Ian A. Meinertzhagen, Robert Renden, and Gregory T. Macleod

#### DEVELOPMENT/PLASTICITY/REPAIR

- 1625 **Reorganization of the Primate Dorsal Horn in Response to a Deafferentation Lesion Affecting Hand Function**  
Karen M. Fisher, Joseph P. Garner, and Corinna Darian-Smith

#### SYSTEMS/CIRCUITS

- 1640 **GABA-ergic Dynamics in Human Frontotemporal Networks Confirmed by Pharmacomagnetoencephalography**  
Natalie E. Adams, Laura E. Hughes, Holly N. Phillips, Alexander D. Shaw, Alexander G. Murley, David Nesbitt, Thomas E. Cope, W. Richard Bevan-Jones, Luca Passamonti, and James B. Rowe
- 1650 **Differential Roles of Mediodorsal Nucleus of the Thalamus and Prefrontal Cortex in Decision-Making and State Representation in a Cognitive Control Task Measuring Deficits in Schizophrenia**  
Adele L. DeNicola, Min-Yoon Park, David A. Crowe, Angus W. MacDonald 3rd, and Matthew V. Chafee
- 1668 **Information-Limiting Correlations in Large Neural Populations**  
Ramon Bartolo, Richard C. Saunders, Andrew R. Mitz, and Bruno B. Averbeck

- 1679 **Continuous Representations of Speed by Striatal Medium Spiny Neurons**  
Wambura C. Fobbs, Sebastiano Bariselli, Julia A. Licholai, Nanami L. Miyazaki,  
Bridget A. Matikainen-Ankney, Meaghan C. Creed, and Alexxai V. Kravitz
- 1689 **Activity-Dependent Calcium Signaling in Neurons of the Medial Superior Olive during Late Postnatal Development**  
Delwen L. Franzen, Sarah A. Gleiss, Christian J. Kellner, Nikolaos Kladisios,  
and Felix Felmy

#### BEHAVIORAL/COGNITIVE

- 1701 **Progression from Feature-Specific Brain Activity to Hippocampal Binding during Episodic Encoding**  
Rose A. Cooper and Maureen Ritchey
- 1710 **Relating Visual Production and Recognition of Objects in Human Visual Cortex**  
Judith E. Fan, Jeffrey D. Wammes, Jordan B. Gunn, Daniel L.K. Yamins,  
Kenneth A. Norman, and Nicholas B. Turk-Browne
- 1722 **Temporal Invariance in SCA6 Is Related to Smaller Cerebellar Lobule VI and Greater Disease Severity**  
Basma Yacoubi, Agostina Casamento-Moran, Roxana G. Burciu, S.H. Subramony,  
David E. Vaillancourt, and Evangelos A. Christou
- 1732 **Optogenetic Activation of the Basolateral Amygdala Promotes Both Appetitive Conditioning and the Instrumental Pursuit of Reward Cues**  
Alice Servonnet, Giovanni Hernandez, Cynthia El Hage, Pierre-Paul Rompré,  
and Anne-Noël Samaha
- 1744 **Medial Prefrontal Cortex Neural Plasticity, Orexin Receptor 1 Signaling, and Connectivity with the Lateral Hypothalamus Are Necessary in Cue-Potentiated Feeding**  
Sindy Cole, Sara E. Keefer, Lauren C. Anderson, and Gorica D. Petrovich

#### NEUROBIOLOGY OF DISEASE

- 1756 **Neuronal Mitochondria Modulation of LPS-Induced Neuroinflammation**  
Micah Harland, Sandy Torres, Jingyi Liu, and Xinglong Wang
- 1766 **Signs of Reduced Basal Progenitor Levels and Cortical Neurogenesis in Human Fetuses with Open Spina Bifida at 11–15 Weeks of Gestation**  
Simone A. Fietz, Takashi Namba, Holger Kirsten, Wieland B. Huttner,  
and Robert Lachmann
- 1778 **Nonionotropic Action of Endothelial NMDA Receptors on Blood–Brain Barrier Permeability via Rho/ROCK-Mediated Phosphorylation of Myosin**  
Anupriya Mehra, Sylvaine Guérit, Richard Macrez, Fabien Gosselet,  
Emmanuel Sevin, Héloïse Lebas, Eric Maubert, Helga E. De Vries, Isabelle Bardou,  
Denis Vivien, and Fabian Docagne

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