



Cover legend: This image shows indirect pathway axons (green) and enkephalin (magenta) in the mouse external pallidum. Direct pathway axons innervate Npas1⁺ pallidal neurons and are strengthened in a chronic model of Parkinson's disease. This contrasts with indirect pathway axons that innervate PV⁺ pallidal neurons and are unchanged. For more information, see the article by Cui et al. (pages 3966–3987). Image credit: Qiaoling Cui.

3944 This Week in The Journal

Journal Club

- 3945 **ZFPM1 Necessary for Development of Serotonergic Projections Related to Anxiety and Contextual Fear Learning**
Masakazu Taira and Miles J. Desforges

Research Articles

CELLULAR/MOLECULAR

- 3948 **PKC98E Regulates Odorant Responses in *Drosophila melanogaster***
Seeta Poudel, Hao Guo, and Dean P. Smith

DEVELOPMENT/PLASTICITY/REPAIR

- 3958 **Macrostructural Changes of the Acoustic Radiation in Humans with Hearing Loss and Tinnitus Revealed with Fixel-Based Analysis**
Elouise A. Koops, Shereif Haykal, and Pim van Dijk

SYSTEMS/CIRCUITS

- 3966 **Striatal Direct Pathway Targets Npas1⁺ Pallidal Neurons**
Qiaoling Cui, Xixun Du, Isaac Y. M. Chang, Arin Pamukcu, Varoth Lilascharoen, Brianna L. Berceau, Daniela García, Darius Hong, Uree Chon, Ahana Narayanan, Yongsoo Kim, Byung Kook Lim, and C. Savio Chan
- 3988 **State-Dependent Regulation of Cortical Processing Speed via Gain Modulation**
David Wyrick and Luca Mazzucato
- 4006 **Superior Colliculus Controls the Activity of the Rostromedial Tegmental Nuclei in an Asymmetrical Manner**
Kamil Pradel, Gniewosz Drwięga, and Tomasz Błasiak
- 4023 **Neural Development of Speech Sensorimotor Learning**
Hiroki Ohashi and David J. Ostry
- 4036 **Dissociable Roles of Pallidal Neuron Subtypes in Regulating Motor Patterns**
Qiaoling Cui, Arin Pamukcu, Suraj Cherian, Isaac Y. M. Chang, Brianna L. Berceau, Harry S. Xenias, Matthew H. Higgs, Shivakumar Rajamanickam, Yi Chen, Xixun Du, Yu Zhang, Hayley McMorrow, Zachary A. Abecassis, Simina M. Boca, Nicholas J. Justice, Charles J. Wilson, and C. Savio Chan

BEHAVIORAL/COGNITIVE

- 4060 **Neural Code of Motor Planning and Execution during Goal-Directed Movements in Crows**
Paul Rinnert and Andreas Nieder
- 4073 **Oscillatory Entrainment of the Frequency-following Response in Auditory Cortical and Subcortical Structures**
Emily B. J. Coffey, Isabelle Arseneau-Bruneau, Xiaochen Zhang, Sylvain Baillet, and Robert J. Zatorre
- 4088 **Sleep Spindles Preferentially Consolidate Weakly Encoded Memories**
Dan Denis, Dimitrios Mylonas, Craig Poskanzer, Verda Bursal, Jessica D. Payne, and Robert Stickgold
- 4100 **Deep Artificial Neural Networks Reveal a Distributed Cortical Network Encoding Propositional Sentence-Level Meaning**
Andrew James Anderson, Douwe Kiela, Jeffrey R. Binder, Leonardo Fernandino, Colin J. Humphries, Lisa L. Conant, Rajeev D. S. Raizada, Scott Grimm, and Edmund C. Lalor
- 4120 **Engram Size Varies with Learning and Reflects Memory Content and Precision**
Jessica Leake, Raphael Zinn, Laura H. Corbit, Michael S. Fanselow, and Bryce Vissel

NEUROBIOLOGY OF DISEASE

- 4131 **The Sustained Antidepressant Effects of Ketamine Are Independent of the Lateral Habenula**
Xuelong Zhou, Chenjing Zhang, Jiamin Miao, Ziyang Chen, and Hongquan Dong
- 4141 **Mechanism of Pacemaker Activity in Zebrafish DC2/4 Dopaminergic Neurons**
Vladimir A. Ilin, Qing Bai, Alan M. Watson, Maxim Volgushev, and Edward A. Burton
- 4158 **Retraction:** "The Sustained Antidepressant Effects of Ketamine are Independent of the Lateral Habenula," by Xuelong Zhou, Chenjing Zhang, Jiamin Miao, Ziyang Chen, Hongquan Dong, and Cunming Liu, appeared online ahead of issue publication on March 4, 2021. A retraction for this article appears on page 4158.

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