This Week in The Journal

Journal Club

10449  Neurally Constrained Cognitive Modeling Clarifies How Action Plans Are Changed
       Bram B. Zandbelt

Brief Communications

10479  The Resting Transducer Current Drives Spontaneous Activity in Prehearing Mammalian Cochlear Inner Hair Cells
       Stuart L. Johnson, Helen J. Kennedy, Matthew C. Holley, Robert Fettiplace, and Walter Marcotti

10516  D1 Receptor Modulation of Action Potential Firing in a Subpopulation of Layer 5 Pyramidal Neurons in the Prefrontal Cortex
       Hannah J. Seong and Adam G. Carter

Articles

CELLULAR/MOLECULAR

10587  Live-Cell Imaging Evidence for the Ciliary Transport of Rod Photoreceptor Opsin by Heterotrimeric Kinesin-2
       Deepti Trivedi, Emilie Colin, Carrie M. Louie, and David S. Williams

10609  A New Concept: \(A\beta_{1-42}\) Generates a Hyperfunctional Proteolytic NCX3 Fragment That Delays Caspase-12 Activation and Neuronal Death
       Anna Pannaccione, Agnese Secondo, Pasquale Molinaro, Carla D’Avanzo, Maria Cantile, Alba Esposito, Francesca Boscia, Antonella Scorziello, Rossana Sirabella, Gianfranco Di Renzo, and Lucio Annunziato

10767  Interaction Between \(\alpha\)CaMKII and GluN2B Controls ERK-Dependent Plasticity
       Farida El Gaamouch, Alain Buisson, Olivier Moustié, Mado Lemieux, Simon Labrecque, Bruno Bontempi, Paul De Koninck, and Olivier Nicole

DEVELOPMENT/PLASTICITY/REPAIR

10484  Nicotine Exposure during Adolescence Leads to Short- and Long-Term Changes in Spike Timing-Dependent Plasticity in Rat Prefrontal Cortex
       Natalia A. Goriounova and Huibert D. Mansvelder

Cover legend: A barn owl. These owls are specialized in sound localization. In nature, simultaneous sound sources may excite or inhibit cells in the inferior colliculus depending on the sound source location. For more information, see the article by Wang et al. (pages 10470–10478).
Regulation of p27<sup>Kip1</sup> by Sox2 Maintains Quiescence of Inner Pillar Cells in the Murine Auditory Sensory Epithelium
Zhiyong Liu, Brandon J. Walters, Thomas Owen, Mark A. Brimble, Katherine A. Steigelman, LingLi Zhang, Marcia M. Mellado Lagarde, Marcus B. Valentine, Yiling Yu, Brandon C. Cox, and Jian Zuo

Experience-Dependent Switch in Sign and Mechanisms for Plasticity in Layer 4 of Primary Visual Cortex
Lang Wang, Alfredo Fontanini, and Arianna Maffei

The stat3/socs3a Pathway Is a Key Regulator of Hair Cell Regeneration in Zebrafish
Jin Liang, Dongmei Wang, Gabriel Renaud, Tyra G. Wolfsberg, Alexander F. Wilson, and Shawn M. Burgess

Purinergic Modulation of Neuronal Activity in Developing Auditory Brainstem
Beatrice Dietz, Saša Jovanovic, Betty Wielsch, Jana Nerlich, Rudolf Rübsamen, and Ivan Milenkovic

BEHAVIORAL/SYSTEMS/COGNITIVE

Activation of Dorsal Raphe Serotonin Neurons Is Necessary for Waiting for Delayed Rewards
Kayoko W. Miyazaki, Katsuhiko Miyazaki, and Kenji Doya

A Widely Distributed Spectral Signature of Task-Negative Electroencephalography Responses Revealed during a Visuomotor Task in the Human Cortex
Michal Ramot, Lior Fisch, Michal Harel, Svetlana Kipervasser, Fani Andelman, Miri Y. Neufeld, Uri Kramer, Itzhak Fried, and Rafael Malach

Population-Wide Bias of Surround Suppression in Auditory Spatial Receptive Fields of the Owl's Midbrain
Yunyan Wang, Sharad J. Shanbhag, Brian J. Fischer, and José L. Peña

Taste Coding in the Nucleus of the Solitary Tract of the Awake, Freely Licking Rat
Andre T. Roussin, Alexandra E. D’Agostino, Andrew M. Fooden, Jonathan D. Victor, and Patricia M. Di Lorenzo

Traveling Waves on the Organ of Corti of the Chinchilla Cochlea: Spatial Trajectories of Inner Hair Cell Depolarization Inferred from Responses of Auditory-Nerve Fibers
Andrei N. Temchin, Alberto Recio-Spinoso, Hongxue Cai, and Mario A. Ruggero

Unleashing Potential: Transcranial Direct Current Stimulation over the Right Posterior Parietal Cortex Improves Change Detection in Low-Performing Individuals
Philip Tseng, Tzu-Yu Hsu, Chi-Fu Chang, Ovid J.L. Tzeng, Daisy L. Hung, Neil G. Muggleton, Vincent Walsh, Wei-Kuang Liang, Shih-kuen Cheng, and Chi-Hung Juan

Large-Scale Synchronized Activity during Vocal Deviance Detection in the Zebra Finch Auditory Forebrain
Gabriel J. L. Beckers and Manfred Gahr

A Fast and Simple Population Code for Orientation in Primate V1
Philipp Berens, Alexander S. Ecker, R. James Cotton, Wei Ji Ma, Matthias Bethge, and Andreas S. Tolias

Visual Fixation as Equilibrium: Evidence from Superior Colliculus Inactivation
Laurent Goffart, Ziady M. Hafed, and Richard J. Krauzlis
10637 Deconstructing the Architecture of Dorsal and Ventral Attention Systems with Dynamic Causal Modeling
Simone Vossel, Ralph Weidner, Jon Driver, Karl J. Friston, and Gereon R. Fink

10649 Stepwise Connectivity of the Modal Cortex Reveals the Multimodal Organization of the Human Brain
Jorge Sepulcre, Mert R. Sabuncu, Thomas B. Yeo, Hesheng Liu, and Keith A. Johnson

10686 Deciding When to Decide: Time-Variant Sequential Sampling Models Explain the Emergence of Value-Based Decisions in the Human Brain
Sebastian Gluth, Jörg Rieskamp, and Christian Büchel

10713 Ablation of Retinal Horizontal Cells from Adult Mice Leads to Rod Degeneration and Remodeling in the Outer Retina
Stephan Sonntag, Karin Dedek, Birthe Dorgau, Konrad Schultz, Karl-Friedrich Schmidt, Kerstin Cimiotti, Reto Weiler, Siegrid Löwel, Klaus Willecke, and Ulrike Janssen-Bienhold

10725 A Common Neural Mechanism for Preventing and Terminating the Allocation of Attention
Risa Sawaki, Joy J. Geng, and Steven J. Luck

10749 Opposing Effects of Aging on Large-Scale Brain Systems for Memory Encoding and Cognitive Control
Alireza Salami, Johan Eriksson, and Lars Nyberg

10780 Neural Selectivity and Representation of Gloss in the Monkey Inferior Temporal Cortex
Akiko Nishio, Naokazu Goda, and Hidehiko Komatsu

NEUROBIOLOGY OF DISEASE

10507 Beneficial Effects of Nrf2 Overexpression in a Mouse Model of Alexander Disease
Christine M. LaPash Daniels, Elizabeth V. Austin, Danica E. Rockney, Elizabeth M. Jacka, Tracy L. Hagemann, Delinda A. Johnson, Jeffrey A. Johnson, and Albee Messing

10541 Movement-Related Changes in Local and Long-Range Synchronization in Parkinson’s Disease Revealed by Simultaneous Magnetoencephalography and Intracranial Recordings
Vladimir Litvak, Alexandre Eusebio, Ashwani Jha, Robert Oostenveld, Gareth Barnes, Tom Foltynie, Patricia Limousin, Ludovic Zrinzo, Marwan I. Hariz, Karl Friston, and Peter Brown

10574 Strain Background Influences Neurotoxicity and Behavioral Abnormalities in Mice Expressing the Tetracycline Transactivator
Harry J. Han, Carolyn C. Allen, Christie M. Buchovecky, Michael J. Yetman, Heather A. Born, Miguel A. Marin, Shaelali P. Rodgers, Bryan J. Song, Hui-Chen Lu, Monica J. Justice, Frank J. Probst, and Joanna L. Jankowsky

10674 Cross-Linking of Cell Surface Amyloid Precursor Protein Leads to Increased β-Amyloid Peptide Production in Hippocampal Neurons: Implications for Alzheimer’s Disease
Roger Lefort, Julio Pozueta, and Michael Shelanski

10758 Role of Rhodopsin and Arrestin Phosphorylation in Retinal Degeneration of Drosophila
Inga Kristaponyte, Yuan Hong, Haiqin Lu, and Bih-Hwa Shieh
Correction: The article "The RCK2 Domain Uses a Coordination Site Present in Kir Channels to Confer Sodium Sensitivity to Slo2.2 Channels" by Zhe Zhang, Avia Rosenhouse-Dantsker, Qiong-Yao Tang, Sergei Noskov, and Diomedes E. Logothetis appeared on pages 7554–7562 of the June 2, 2010 issue. A correction for that article appears on page 10794.

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