

JNeurosci

THE JOURNAL OF NEUROSCIENCE

November 16, 2016 • Volume 36 Number 46 • www.jneurosci.org



Cover legend: This watercolor by Biuse Guivernau was inspired by immunocytofluorescence images of cultured hippocampal mouse neurons treated acutely with β -amyloid. β -amyloid oligomers (and nitrated beta-amyloid oligomers) not only induce neuronal death, but also impair neuronal function, by binding to dendritic spines and synapses. The image represents the functional isolation of neurons resulting from amyloid buildup in a brain affected by Alzheimer's disease. For more information see the article by Guivernau et al. (pages 11693–11703).

i This Week in The Journal

Techsights

- 11573 Compartmentalized Microfluidic Platforms: The Unrivaled Breakthrough of *In Vitro* Tools for Neurobiological Research**
Estrela Neto, Luís Leitão, Daniela M. Sousa, Cecília J. Alves, Inês S. Alencastre, Paulo Aguiar, and Meriem Lamghari

Journal Club

- 11585 Activity-Dependent Myelination Shapes Conduction Velocity**
Benayahu Elbaz
- 11587 Tumor Necrosis Factor α as a Potential Mediator of the Effects of Phosphodiesterase 4B Inhibition on Cognition after Traumatic Brain Injury**
Hannah Thomasy

Research Articles

CELLULAR/MOLECULAR

- 11739 *Drosophila* DH31 Neuropeptide and PDF Receptor Regulate Night-Onset Temperature Preference**
Tadahiro Goda, Xin Tang, Yujiro Umezaki, Michelle L. Chu, and Fumika N. Hamada
- 11781 Activity Induces Fmr1-Sensitive Synaptic Capture of Anterograde Circulating Neuropeptide Vesicles**
Samantha L. Cavolo, Dinara Bulgari, David L. Deitcher, and Edwin S. Levitan

DEVELOPMENT/PLASTICITY/REPAIR

- 11801 Roles of Cbln1 in Non-Motor Functions of Mice**
Shintaro Otsuka, Kohtarou Konno, Manabu Abe, Junko Motohashi, Kazuhisa Kohda, Kenji Sakimura, Masahiko Watanabe, and Michisuke Yuzaki

SYSTEMS/CIRCUITS

- 11601 Environmental Anchoring of Head Direction in a Computational Model of Retrosplenial Cortex**
Andrej Bicanski and Neil Burgess
- 11634 Functional Synaptic Integration of Forebrain GABAergic Precursors into the Adult Spinal Cord**
Alex Etlin, Joao M. Bráz, Julia A. Kuhn, Xidao Wang, Katherine A. Hamel, Ida J. Llewellyn-Smith, and Allan I. Basbaum

- 11646 **Early Odorant Exposure Increases the Number of Mitral and Tufted Cells Associated with a Single Glomerulus**
Annie Liu, Sajishnu Savya, and Nathaniel N. Urban
- 11727 **Functional Organization of Flash-Induced V1 Offline Reactivation**
Kenta Funayama, Nobuhiro Hagura, Hiroshi Ban, and Yuji Ikegaya
- 11768 **An Array of Descending Visual Interneurons Encoding Self-Motion in *Drosophila***
Marie P. Suver, Ainul Huda, Nicole Iwasaki, Steve Safarik,
and Michael H. Dickinson

BEHAVIORAL/COGNITIVE

- 11590 **Tracking the Time Course of Top-Down Contextual Effects on Motor Responses during Action Comprehension**
Lucia Amoruso, Alessandra Finisguerra, and Cosimo Urgesi
- 11671 **EEG Oscillations Are Modulated in Different Behavior-Related Networks during Rhythmic Finger Movements**
Martin Seeber, Reinhold Scherer, and Gernot R. Müller-Putz
- 11682 **Somatic and Reinforcement-Based Plasticity in the Initial Stages of Human Motor Learning**
Ananda Sidarta, Shahabeddin Vahdat, Nicolò F. Bernardi, and David J. Ostry
- 11716 **Ventral Pallidum Output Pathways in Context-Induced Reinstatement of Alcohol Seeking**
Asheeta A. Prasad and Gavan P. McNally
- 11755 **Fatty Acid-Binding Protein 5 at the Blood-Brain Barrier Regulates Endogenous Brain Docosahexaenoic Acid Levels and Cognitive Function**
Yijun Pan, Jennifer L. Short, Kwok H. C. Choy, Annie X. Zeng, Philip J. Marriott, Yuji Owada, Martin J. Scanlon, Christopher J. H. Porter, and Joseph A. Nicolazzo
- 11788 **Dorsolateral Prefrontal Cortex GABA Concentration in Humans Predicts Working Memory Load Processing Capacity**
Jong H. Yoon, Anthony Grandelis, and Richard J. Maddock

NEUROBIOLOGY OF DISEASE

- 11619 **Reduced Efficacy of the KCC2 Cotransporter Promotes Epileptic Oscillations in a Subiculum Network Model**
Anatoly Buchin, Anton Chizhov, Gilles Huberfeld, Richard Miles,
and Boris S. Gutkin
- 11654 **A *Drosophila* Model of Neuronopathic Gaucher Disease Demonstrates Lysosomal-Autophagic Defects and Altered mTOR Signalling and Is Functionally Rescued by Rapamycin**
Kerri J. Kinghorn, Sebastian Grönke, Jorge Iván Castillo-Quan,
Nathaniel S. Woodling, Li Li, Ernestas Sirka, Matthew Gegg, Kevin Mills,
John Hardy, Ivana Bjedov, and Linda Partridge
- 11693 **Amyloid- β Peptide Nitrotyrosination Stabilizes Oligomers and Enhances NMDAR-Mediated Toxicity**
Biuse Guivernau, Jaume Bonet, Victòria Valls-Comamala, Mònica Bosch-Morató,
Juan A. Godoy, Nibaldo C. Inestrosa, Alex Perálvarez-Marín,
Xavier Fernández-Busquets, David Andreu, Baldomero Oliva,
and Francisco J. Muñoz

- 11704 **The Effects of Peripheral and Central High Insulin on Brain Insulin Signaling and Amyloid- β in Young and Old APP/PS1 Mice**
Molly Stanley, Shannon L. Macauley, Emily E. Caesar, Lauren J. Koscal, Will Moritz, Grace O. Robinson, Joseph Roh, Jennifer Keyser, Hong Jiang, and David M. Holtzman
- 11795 **Electrophysiological Evidence for Alternative Motor Networks in REM Sleep Behavior Disorder**
Marc Hackius, Esther Werth, Oguzkan Sürücü, Christian R. Baumann, and Lukas L. Imbach
-

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/content/information-authors>. Authors should refer to these Instructions online for recent changes that are made periodically.

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; e-mail, jn@sfn.org.