



**Cover legend:** This image illustrates a zebrafish larvae hunting a paramecium. All the neurons in the larvae were labelled with GCaMP6s (green) and the glutamatergic excitatory neurons were labelled with red fluorescent protein. For more information, see the article by Zhu et al. (pages 1211–1224).  
Cover image: Iris Zhu.

## 1072 This Week in The Journal

### Viewpoints

#### 1074 On the Role of Theory and Modeling in Neuroscience

Daniel Levenstein, Veronica A. Alvarez, Asohan Amarasingham, Habiba Azab, Zhe S. Chen, Richard C. Gerkin, Andrea Hasenstaub, Ramakrishnan Iyer, Renaud B. Jolivet, Sarah Marzen, Joseph D. Monaco, Astrid A. Prinz, Salma Quraishi, Fidel Santamaria, Sabyasachi Shivkumar, Matthew F. Singh, Roger Traub, Farzan Nadim, Horacio G. Rotstein, and A. David Redish

### Research Articles

#### CELLULAR/MOLECULAR

#### 1089 Convergent Energy State–Dependent Antagonistic Signaling by Cocaine- and Amphetamine-Regulated Transcript (CART) and Neuropeptide Y (NPY) Modulates the Plasticity of Forebrain Neurons to Regulate Feeding in Zebrafish

Devika S. Bodas, Aditi Maduskar, Tarun Kaniganti, Debia Wakhloo, Akilandeswari Balasubramanian, Nishikant Subhedar, and Aurnab Ghose

#### 1111 A Novel and Functionally Diverse Class of Acetylcholine-Gated Ion Channels

Iris Hardege, Julia Morud, Amy Courtney, and William R. Schafer

#### DEVELOPMENT/PLASTICITY/REPAIR

#### 1125 Dual Role of the P2X7 Receptor in Dendritic Outgrowth during Physiological and Pathological Brain Development

Paula Mut-Arbona, Lumei Huang, Mária Baranyi, Pál Tod, András Iring, Francesco Calzaferrri, Cristobal de los Ríos, and Beáta Sperlág

#### 1143 Cerebral Creatine Deficiency Affects the Timing of Oligodendrocyte Myelination

Lauren M. Rosko, Tyler Gentile, Victoria N. Smith, Zeeba Manavi, George S. Melchor, Jingwen Hu, Natalia V. Shults, Chris Albanese, Yichien Lee, Olga Rodriguez, and Jeffrey K. Huang

#### 1154 Control of G<sub>2</sub> Phase Duration by CDC25B Modulates the Switch from Direct to Indirect Neurogenesis in the Neocortex

Melanie Roussat, Thomas Jungas, Christophe Audouard, Sofiane Omerani, Francois Medevielle, Eric Agius, Alice Davy, Fabienne Pituello, and Sophie Bel-Vialar

#### SYSTEMS/CIRCUITS

#### 1166 Ventral Subiculum Inputs to Nucleus Accumbens Medial Shell Preferentially Innervate D2R Medium Spiny Neurons and Contain Calcium Permeable AMPARs

Emma E. Boxer, JungMin Kim, Brett Dunn, and Jason Aoto

- 1178 **Arc-Expressing Accessory Olfactory Bulb Interneurons Support Chemosensory Social Behavioral Plasticity**  
Kelsey E. Zuk, Hillary L. Cansler, Jinxin Wang, and Julian P. Meeks
- 1191 **Synapse-Specific Modulation of Synaptic Responses by Brain States in Hippocampal Pathways**  
Manon Rampon, Julien Carponcy, Mégane Missaire, Romain Bouet, Regis Parmentier, Jean-Christophe Comte, Gael Malleret, and Paul A. Salin
- 1211 ***fmr1* Mutation Alters the Early Development of Sensory Coding and Hunting and Social Behaviors in Larval Zebrafish**  
Shuyu I. Zhu, Michael H. McCullough, Zac Pujic, Jordan Sibberas, Biao Sun, Thomas Darveniza, Bianca Bucknall, Lilach Avitan, and Geoffrey J. Goodhill

#### BEHAVIORAL/COGNITIVE

- 1225 **Cingulo-Opercular Subnetworks Motivate Frontoparietal Subnetworks during Distinct Cognitive Control Demands**  
Jessica L. Wood and Derek Evan Nee
- 1238 **Temporal Dynamics Underlying Prelimbic Prefrontal Cortical Regulation of Action Selection and Outcome Evaluation during Risk/Reward Decision-Making**  
Debra A. Bercovici, Oren Prinz-Lebel, Jackson D. Schumacher, Valerie M. Lo, and Stan B. Floresco

#### NEUROBIOLOGY OF DISEASE

- 1256 **Altered Neurovascular Coupling for Multidisciplinary Intensive Rehabilitation in Parkinson's Disease**  
Ting Li, Li Wang, Zhixin Piao, Keke Chen, Xin Yu, Qiping Wen, Dingjie Suo, Chunyu Zhang, Shintaro Funahashi, Guangying Pei, Boyan Fang, and Tianyi Yan
- 1267 **FUS Contributes to Nerve Injury-Induced Nociceptive Hypersensitivity by Activating NF- $\kappa$ B Pathway in Primary Sensory Neurons**  
Guang Han, Xiang Li, Chun-Hsien Wen, Shaogen Wu, Long He, Cynthia Tan, John Nivar, Alex Bekker, Steve Davidson, and Yuan-Xiang Tao
- 1279 **Erratum:** The article "Duration Selectivity in Right Parietal Cortex Reflects the Subjective Experience of Time," by Masamichi J. Hayashi and Richard B. Ivry, appeared on pages 7749–7758 of the September 30, 2020 issue. An erratum for this article appears on page 1279.

---

Persons interested in becoming members of the Society for Neuroscience should contact the Membership Department at [membership@sfn.org](mailto:membership@sfn.org) or 202-962-4911.

For current submission policies and manuscript preparation guidelines, authors should refer to our Information for Authors at <https://www.jneurosci.org/content/information-authors>.

Manuscripts should be submitted online at <https://jneurosci.msubmit.net>. Please contact the Central Office with any questions at [jn@sfn.org](mailto:jn@sfn.org) or 202-962-4000.