



Cover legend: This image shows different types of bipolar cells in the chicken retina (different shades of yellow-orange-red-violet) that were reconstructed from a serial sectioning electron microscopic dataset.

The high resolution of this dataset allows classification based not only on morphological features such as soma position and stratification in the inner plexiform layer, but also on individual synaptic contacts to different photoreceptor cells. The classes include double cones (principal member in dark blue and accessory member in bright blue), rods (brown), green/red cones (green), and blue/violet single cones (magenta). For more information, see the article by Günther et al. (pages 5015–5028).

Cover image: Anja Günther.

4948 This Week in The Journal

Celebrating 40 Years of *JNeurosci*

PROGRESSIONS

- 4949 **The Journal of Neuroscience's 40th Anniversary: Looking Back, Looking Forward**
Thomas J. Carew

Journal Club

- 4954 **The Central Thalamus: Gatekeeper or Processing Hub?**
Bianca Sieveritz and Ramanujan T. Raghavan

Research Articles

CELLULAR/MOLECULAR

- 4957 **Unique Actions of GABA Arising from Cytoplasmic Chloride Microdomains**
Negah Rahmati, Kieran P. Normoyle, Joseph Glykys, Volodymyr I. Dzhalala, Kyle P. Lillis, Kristopher T. Kahle, Rehan Raiyyani, Theju Jacob, and Kevin J. Staley

DEVELOPMENT/PLASTICITY/REPAIR

- 4976 **Pen-2 Negatively Regulates the Differentiation of Oligodendrocyte Precursor Cells into Astrocytes in the Central Nervous System**
Jinxing Hou, Huiru Bi, Zhuoyang Ye, Wenhui Huang, Gang Zou, Xiaochuan Zou, Yun Stone Shi, Ying Shen, Quanhong Ma, Frank Kirchhoff, Yimin Hu, and Guiquan Chen

SYSTEMS/CIRCUITS

- 4991 **Neurophysiological Indices of Audiovisual Speech Processing Reveal a Hierarchy of Multisensory Integration Effects**
Aisling E. O'Sullivan, Michael J. Crosse, Giovanni M. Di Liberto, Alain de Cheveigné, and Edmund C. Lalor
- 5004 **Cue and Reward Evoked Dopamine Activity Is Necessary for Maintaining Learned Pavlovian Associations**
Ruud van Zessen, Jacques P. Flores-Dourojeanni, Timon Eekel, Siem van den Reijen, Bart Lodder, Azar Omrani, Marten P. Smidt, Geert M.J. Ramakers, Geoffrey van der Plasse, Garret D. Stuber, and Roger A.H. Adan
- 5015 **Double Cones and the Diverse Connectivity of Photoreceptors and Bipolar Cells in an Avian Retina**
Anja Günther, Karin Dedek, Silke Haverkamp, Stephan Irsen, Kevin L. Briggman, and Henrik Mouritsen

- 5029 **Impact of GABA_A and GABA_B Inhibition on Cortical Dynamics and Perturbational Complexity during Synchronous and Desynchronized States**
Almudena Barbero-Castillo, Pedro Mateos-Aparicio, Leonardo Dalla Porta, Alessandra Camassa, Lorena Perez-Mendez, and Maria V. Sanchez-Vives

BEHAVIORAL/COGNITIVE

- 5045 **Cortical Responses to the Amplitude Envelopes of Sounds Change with Age**
Vanessa C. Irsik, Ala Almanaseer, Ingrid S. Johnsrude, and Björn Herrmann
- 5056 **A Preferential Role for Ventromedial Prefrontal Cortex in Assessing “the Value of the Whole” in Multiattribute Object Evaluation**
Gabriel Pelletier, Nadav Aridan, Lesley K. Fellows, and Tom Schonberg
- 5069 **Volume of β -Bursts, But Not Their Rate, Predicts Successful Response Inhibition**
Nadja Enz, Kathy L. Ruddy, Laura M. Rueda-Delgado, and Robert Whelan
- 5080 **Protein Appetite Drives Macronutrient-Related Differences in Ventral Tegmental Area Neural Activity**
Giulia Chiacchierini, Fabien Naneix, Kate Zara Peters, John Apergis-Schoute, Eelke Mirthe Simone Snoeren, and James Edgar McCutcheon
- 5093 **Cortical Tracking of a Background Speaker Modulates the Comprehension of a Foreground Speech Signal**
Mahmoud Keshavarzi, Enrico Varano, and Tobias Reichenbach
- 5102 **Responses to Heartbeats in Ventromedial Prefrontal Cortex Contribute to Subjective Preference-Based Decisions**
Damiano Azzalini, Anne Buot, Stefano Palminteri, and Catherine Tallon-Baudry
- 5115 **Intracortical Functional Connectivity Predicts Arousal to Noxious Stimuli during Sleep in Humans**
Hélène Bastuji, Andéol Cadic-Melchior, Michel Magnin, and Luis Garcia-Larrea

NEUROBIOLOGY OF DISEASE

- 5124 **Tacrolimus Protects against Age-Associated Microstructural Changes in the Beagle Brain**
Hamsanandini Radhakrishnan, Margo F. Ubele, Stephanie M. Krumholz, Kathy Boaz, Jennifer L. Mefford, Erin Denhart Jones, Beverly Meacham, Jeffrey Smiley, László G. Puskás, David K. Powell, Christopher M. Norris, Craig E.L. Stark, and Elizabeth Head

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