



Cover legend: Altered microglial morphology in Alzheimer's APP mouse brains. Microglial morphologies (marked by IBA1 antibody in red) including the process length, end-points and the number of microglia per neuritic plaque (marked by anti-A β 6E10 antibody in green) in 5xFAD or APP KI mice are differentially altered in response to BACE1 inhibition. 5xFAD mice had more dense, compact plaques with significant microglial contacts, while APP KI mice had more diffuse plaques with fewer microglial contacts. More plaque-associated microglial morphology may remove more pre-formed plaques to reverse functional deficits like sleep dysfunction and epileptic seizures. For more information, see the article by Yao et al. (pages 6197–6211).
Cover image: Xiangyou Hu.

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- 6109 **Social Experience during Adolescence Shapes Maturation of Parvalbumin-Positive Interneurons in the Left Orbitofrontal Cortex**
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- 6141 **Predictive Mouse Ultrasonic Vocalization Sequences: Uncovering Behavioral Significance, Auditory Cortex Neuronal Preferences, and Social-Experience-Driven Plasticity**
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- 6176 **Preserved Metacognition for Undetected Visuomotor Deviations**
Michael Pereira, Rafal Skiba, Yann Cojan, Patrik Vuilleumier, and Indrit Bègue
- 6185 **Effects of Adult Age and Functioning of the Locus Coeruleus Norepinephrinergic System on Reward-Based Learning**
Hsiang-Yu Chen, Michael Marxen, Martin J. Dahl, and Franka Glöckner

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- 6197 **Bace1 Deletion in the Adult Reverses Epileptiform Activity and Sleep-wake Disturbances in AD Mice**
Annie Y. Yao, Patrick J. Halloran, Yingying Ge, Neeraj Singh, John Zhou, James Galske, Wanxia He, Riqiang Yan, and Xiangyou Hu

6212 **Interneuron-Targeted Disruption of *SYNGAP1* Alters Sensory Representations in the Neocortex and Impairs Sensory Learning**
Meiling Zhao and Sung Eun Kwon

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