

Featured Publications

(2016.01-2016.12)

1. Chen, M., Li, P., Zhu, S., Han, C., Xu, H., Fang, Y., Hu, J., Roe, A., and Lu, H.* (2016) An orientation map for motion boundaries in macaque V2. *Cereb. Cortex* 26: 279-287.
2. Li, C., Li, K., Wu, D., Chen, Y., Luo, H., Zhao, J., Wang, S., Sun, M., Lu, Y., Zhong, Y., Hu, X., Hou, R., Zhou, B., Bao, L., Xiao, H., and **Zhang, X.*** (2016) Somatosensory neuron types identified by high-coverage single-cell RNA-sequencing and functional heterogeneity. *Cell Res.* 26: 83-102.
3. Liu, Z., Nie, Y., Zhang, C., Cai, Y., Wang, Y., Lu, H., Li, Y., Cheng, C., Qiu, Z. and **Sun, Q.*** (2016) Generation of macaques with sperm derived from juvenile monkey testicular xenografts. *Cell Res.* 26: 139-142.
4. Liu, Z., Li, X., Zhang, J., Cai, Y., Cheng, T., Cheng, C., Wang, Y., Zhang, C., Nie, Y., Chen, Z., Bian, W., Zhang, L., Xiao, J., Lu, B., Zhang, Y., Zhang, X., Sang, X., Wu, J., Xu, X., Xiong, Z., Zhang, F., Yu, X., Gong, N., Zhou, W., **Sun, Q.***, and **Qiu, Z.*** (2016) Autism-like behaviours and germline transmission in transgenic monkeys overexpressing MeCP2. *Nature* 530: 98-102.
5. Yao, Y., Li, X., Zhang, B., Yin, C., Liu, Y., Chen, W., Zeng, S., and **Du, J.*** (2016) Visual Cue-discriminative dopaminergic control of visuomotor transformation and behavior selection. *Neuron* 89: 598-612.
6. Lv, Q., Yang, L., Li, G., Wang, Z., Shen, Z., Yu, W., Jiang, Q., Hou, B., Pu, J., Hu, H., and **Wang, Z.*** (2016) Large-scale persistent network reconfiguration induced by ketamine in anesthetized monkeys: relevance to mood disorders. *Biol. Psychiat.* 79: 765-775.
7. Liu, L., She, L., Chen, M., Liu, T., Lu, H., Dan, Y., and **Poo, M.*** (2016) Spatial structure of neuronal receptive field in awake monkey secondary visual cortex (V2). *Proc. Natl. Acad. Sci. USA.* 113: 1913-1918.
8. Xu, H., Han, C., Chen, M., Li, P., Zhu, S., Fang, Y., Hu, J., Ma, H., and Lu, H.* (2016) Rivalry-like neural activity in primary visual cortex in anesthetized monkeys. *J. Neurosci.* 36: 3231-3242.
9. Feng, S., Ma, S., Jia, C., Su, Y., Yang, S., Zhou, K., Liu, Y., Cheng, J., Lu, D., Fan, L., and Wang, Y.* (2016) Sonic hedgehog is a regulator of extracellular glutamate levels and epilepsy. *EMBO Rep.* 17: 682-694.
10. Cheng, Z., and **Gu, Y.*** (2016) Distributed representation of curvilinear self-motion in the macaque parietal cortex. *Cell Rep.* 15: 1013-1023.

11. Wu, K., Zuo, G., Li, X., Ye, Q., Deng, Y., Huang, X., Cao, W., Qin, C.* , and **Luo, Z.*** (2016) Vertical transmission of Zika virus targeting the radial glial cells affects cortex development of offspring mice. *Cell Res.* 26: 645-654.
12. Liu, Q., Yang, X., Tian, J., Gao, Z., Wang, M., Li, Y.*, and **Guo, A.*** (2016) Gap junction networks in mushroom bodies participate in visual learning and memory in *Drosophila*. *Elife* 5: e13238.
13. Guo, Y., Wang, Y., Zhang, W., Meltzer, S., Zanini, D., Yu, Y., Li, J., Cheng, T., Guo, Z., Wang, Q., Jacobs, J., Sharma, Y., Eberl, D., Göpfert, M., Jan, L., Jan, Y.*, and **Wang, Z.*** (2016) Transmembrane channel-like (tmc) gene regulates *Drosophila* larval locomotion. *Proc. Natl. Acad. Sci. USA.* 113: 7243-7248.
14. Xu, Y. Guo, W., Li, P., Zhang, Y., Zhao, M., Fan, Z., Zhao, Z., and **Yan, J.*** (2016) Long-range chromosome interactions mediated by cohesin shape circadian gene expression. *PLoS Genet.* 12: e1005992.
15. Deng, H., Xiao, X., and **Wang Z.*** (2016) Periaqueductal gray neuronal activities underlie different aspects of defensive behaviors. *J. Neurosci.* 36: 7580-7588.
16. **Gu, Y.***, Cheng, Z., Yang, L., Deangelis, G., and Angelaki, D.* (2016) Multisensory convergence of visual and vestibular heading cues in the pursuit area of the frontal eye field. *Cereb. Cortex* 26: 3785-3801.
17. Zhang, R.*, Li, X., Kawakami, K. and **Du, J.*** (2016) Stereotyped initiation of retinal waves by bipolar cells via presynaptic NMDA autoreceptors. *Nat. Commun.* 7: 12650.
18. Ju, X., Hou, Q., Sheng, A., Wu, K., Zhou, Y., Jin, Y., Wen, T., Yang, Z., Wang, X., and **Luo, Z.*** (2016) The hominoid-specific gene TBC1D3 promotes generation of basal neural progenitors and induces cortical folding in mice. *eLife* 5: e18197.
19. Yang, Y.*, Liu, D., Huang, W., Deng, J., Sun, Y., Zuo, Y., and **Poo, M.** (2016) Amygdalaocortical projection in fear memory. *Nat. Neurosci.* 19: 1348-1355.
20. Yin, D., Liu, W., Zeljic, K., Wang, Z., Lv, Q., Fan, M., Cheng, W.*, and **Wang, Z.*** (2016) Dissociable changes of frontal and parietal cortices in inherent functional flexibility across the human life span. *J. Neurosci.* 36: 10060-10074.
21. He, M., Ding, Y., Chu, C., Tang, J., Xiao, Q., and **Luo, Z.*** (2016) Autophagy induction stabilizes microtubules and promotes axon regeneration after spinal cord injury. *Proc. Natl. Acad. Sci. USA.* 113: 11324-11329.
22. **Poo, M.***, Pignatelli, M., Ryan, T., Tonegawa, S.*, Bonhoeffer, T., Martin, K., Rudenko, A., Tsai L., Tsien, R., Fishell, G., Mullins, C., Gonçalves, J., Shtrahman, M., Johnston, S., Gage,

- F., Dan, Y., Long, J., Buzsáki, G., Stevens, C. (2016) What is memory? The present state of the engram. *BMC Biol.* 14: 40. (Review)
23. **Du, X.***, and **Du, J.*** (2016) A death trap for microglia. *Dev. Cell* 38: 120-121. (Invited Preview)
24. **Poo, M.***, Du, J., Ip, N., Xiong, Z., Xu, B., and Tan, T.* (2016) China brain project: basic neuroscience, brain diseases, and brain-inspired computing. *Neuron* 92: 591-596. (NeuroView)

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