

2018 年神经科学国家重点实验室发表文章统计

1. Wang, Z., Zeljic, K., Jiang, Q., Gu, Y., Wang, W., **Wang, Z.*** (2018) Dynamic Network Communication in the Human Functional Connectome Predicts Perceptual Variability in Visual Illusion. *Cereb. Cortex.* 28:48-62.
2. **Wang, W.***, Andolina, I.*, Lu, Y., Jones, H., Sillito, A. (2018) Focal Gain Control of Thalamic Visual Receptive Fields by Layer 6 Corticothalamic Feedback. *Cereb. Cortex.* 28:267-280.
3. Cheng, T.*, and **Qiu, Z.*** (2018) Long non-coding RNA tagging and expression manipulation via CRISPR/Cas9-mediated targeted insertion. *Protein Cell* 9:820-825.
4. Tan, G., Liu, Y., Wang, L., Li, K., Zhang, Z., Li, H., Yang, Z., Li, Y., Li, D., Wu, M., Yu, C., Long, J., Chen, R., Li, L., Yin, L., Liu, J., Cheng, X., Shen, Q., Shu, Y., Sakimura, K., Liao, L., Wu, Z., **Xiong, Z.***(2018) PRRT2 deficiency induces paroxysmal kinesigenic dyskinesia by regulating synaptic transmission in cerebellum. *Cell Res.* 28:90-110.
5. Li, X., Yu, B., Sun, Q., Zhang, Y., Ren, M., Zhang, X., Li, A., Yuan, J., Madisen, L., Luo, Q., Zeng, H., Gong, H.* and **Qiu, Z.***(2018) Generation of a whole-brain atlas for the cholinergic system and mesoscopic projectome analysis of basal forebrain cholinergic neurons. *PNAS* 115:415-420.
6. Yao, X., Liu, Z., Wang, X., Wang, Y., Nie, Y., Lai, L., Sun, R., Shi, L., **Sun, Q.***, **Yang, H.*** (2018) Generation of knock-in cynomolgus monkey via CRISPR/Cas9 editing. *Cell Res.* 28:379-382.
7. Zhou, H., Liu, J., Zhou, C., Gao, N., Rao, Z., Li, H., Hu, X., Li, C., Yao, X., Shen, X., Sun, Y., Wei, Y., Liu, F., Ying, W., Zhang, J., Tang, C., Zhang, X., Xu, H., Shi, L., Cheng, L., Huang, P.*, **Yang, H.*** (2018) In vivo simultaneous transcriptional activation of multiple genes in the brain using CRISPR–dCas9-activator transgenic mice. *Nat. Neurosci.* 21:440-446.
8. Wei, Y., Wang, S., Jiao, Z., Zhang, W., Lin, J., Li, X., Li, S., Zhang, X. & **Xu, X.*** (2018) Medial preoptic area in mice is capable of mediating sexually dimorphic behaviors regardless of gender. *Nat. Commun.* 9:279.
9. Liu, Z., Cai, Y., Wang, Y., Nie, Y., Zhang, C., Xu, Y., Zhang, X., Lu, Y., Wang, Z., Poo, M., **Sun, Q.***(2018) Cloning of Macaque Monkeys by Somatic Cell Nuclear Transfer. *Cell* 172:881-887.
10. Han, Z., Zhang, X., Zhu, J., Chen, Y., and **Li, C.*** (2018) High-throughput automatic training system for odor-based learned behaviors in head-fixed mice. *Front. Neural Circuits* 12: 15.
11. Dang, T., Duan, W., Yu, B., Tong, D., Cheng, C., Zhang, Y., Wu, W., Ye, K., Zhang, W., Wu, M., Wu, B., An, Y., **Qiu, Z.***, and Wu, B.* (2018) Autism-associated Dyrk1a truncation

mutants impair neuronal dendritic and spine growth and interfere with postnatal cortical development. *Mol. Psychiatr.* 23: 747-758.

12. Zhou, N., Qin, S., Liu, Y., Tang, L., Zhao, W., Pan, C., **Qiu, Z.***, Wang, X.*, and Shu, X.* (2018) Whole-exome sequencing identifies rare compound heterozygous mutations in the MYBPC3 gene associated with severe familial hypertrophic cardiomyopathy. *Eur. J. Med. Genet.* 61:434-441.
13. Hu, C., Xu, X.*, Xiong, G., Xu, Q., Zhou, B., Li, C., Qin, Q., Liu, C., Li, H., Sun, Y.*, and Yu, X.* (2018) Alterations in plasma cytokine levels in chinese children with autism spectrum disorder. *Autism Res.* 11:989-999.
14. Zhu, Z., Liu, J., Li, K., Zheng, J., and **Xiong, Z.*** (2018) KPNB1 inhibition disrupts proteostasis and triggers unfolded protein response-mediated apoptosis in glioblastoma cells. *Oncogene* 37:2936-2952.
15. Lu, Y., Yin, J., Chen, Z., Gong, H., Liu, Y., Qian, L., Li, X., Liu, R., Andolina, I., **Wang, W.*** (2018) Revealing detail along the visual hierarchy: neural clustering preserves acuity from V1 into V4. *Neuron* 98:417-428.
16. Li, F., Jiang, W., Wang, T., Xie, T., **Yao, H.***(2018) Phase-specific surround suppression in mouse primary visual cortex correlates with figure detection behavior based on phase discontinuity. *Neuroscience* 379:359-374.
17. Yin, D., Zhang, C., Lv, Q., Chen, X., Zeljic, K., Gong, H., Zhan, S., Jin, H., **Wang, Z.***, Sun, B.* (2018) Dissociable frontostriatal connectivity: mechanism and predictor of the clinical efficacy of capsulotomy in obsessive-compulsive disorder. *Biol. Psychiatr.* 84: 926-936.
18. Yao, X.*, Zhang, M., Wang, X., Ying, W., Hu, X., Dai, P., Meng, F., Shi, L., Sun, Y., Yao, N., Zhong, W., Li, Y., Wu, K., Li, W.*, Chen, Z.*, and **Yang, H.*** (2018) Tild-CRISPR allows for efficient and precise gene knockin in mouse and human cells. *Dev. Cell* 45: 526-536.
19. Yao, X., Wang, X., Liu, J., Shi, L., Huang, P.*, and **Yang, H.*** (2018) CRISPR/Cas9-mediated targeted integration in vivo using a homology-mediated end joining-based strategy. *J. Vis. Exp.* 133: e56844.
20. Zhang, Q., Li, H., Chen, M., Guo, A., Wen, Y.* and **Poo, M.*** (2018) Functional organization of intrinsic and feedback presynaptic inputs in the primary visual cortex. *PNAS* 115:5174-5182.
21. Xu, W., **Xu, J.***(2018) C9orf72 dipeptide repeats cause selective neurodegeneration and cell-autonomous excitotoxicity in Drosophila glutamatergic neurons. *J. Neurosci.* 38:7741-7752.
22. Chen, X., Zhang, C., Li, Y., Lv, Q., Zeljic, K., Huang, P., Jin, H., Chen, S., Sun, B.*, **Wang, Z.***(2018) Functional connectivity-based modelling simulates subject-specific network effects

of focal brain stimulation. *Neurosci. Bull.* 34:921-938.

23. Zhang, T., Jiang, X., Xu, M., Wang, H., Sang, X., Qin, M., Bao, P., Wang, R., Zhang, C., Lu, H., Li, Y., Ren, J., Chang, H., Yan, J., **Sun, Q.***, **Xu, J.*** (2018) Sleep and circadian abnormalities precede cognitive deficits in R521C FUS knockin rats. *Neurobiol. Aging* 72:159-170.
24. Du, W., Zhang, R.* , Li, J., Zhang, B., Peng, X., Cao, S., Yuan, J., Yuan, C., Yu, T.* , **Du, J.*** (2018). The locus coeruleus modulates intravenous general anesthesia of zebrafish via a cooperative mechanism. *Cell Rep.* 24:3146-3155.
25. Du, X.* , Xu, B., Zhang, Y., Chen, M., and **Du, J.*** (2018). A transgenic zebrafish model for in vivo long-term imaging of retinotectal synaptogenesis. *Sci. Rep.* 8:14077.
26. Zhang, Y., Xu, B., Chen, Q., Yan, Y., **Du, J.***, Du X.* (2018). Apoptosis of endothelial cells contributes to brain vessel pruning of zebrafish during development. *Front. Mol. Neurosci.* 11:222.
27. Jiang, Q., Li, K., Lu, W., Li, S., Chen, X., Liu, X., Yuan, J., Ding, Q., Lan, F.* & **Cai, S.***(2018) Identification of small-molecule ion channel modulators in *C. elegans* channelopathy models. *Nat. Commun.* 9:3941.
28. Duan, L., Zhang, X., Miao, W., Sun, Y., Xiong, G., Wu, Q., Li, G., Yang, P., Yu, H., Li, H., Wang, Y., Zhang, M., Hu, L., Tong, X., Zhou, W., **Yu, X.*** (2018) PDGFR β cells rapidly relay inflammatory signal from the circulatory system to neurons via chemokine CCL2. *Neuron* 100:183-200.
29. Bai, X., Li, K., Yao, L., Kang, X., **Cai, S.*** (2018) A forward genetic screen identifies chaperone CNX-1 as a conserved biogenesis regulator of ERG K⁺ channels. *J. Gen. Physiol.* 150:1189-1201.
30. Yuan, L., Liang, T., Deng, J. and **Sun, Y.*** (2018) Dynamics and functional role of dopaminergic neurons in the ventral tegmental area during itch processing. *J. Neurosci.* 38:9856-9869.
31. Su, J., Huang, P., Qin, M., Lu, Q., Sang, X., Cai, Y., Wang, Y., Liu, F., Wu, R., Wang, X., Jiang, X., Wang, J., Sun, Q., Chen, S.* , **Xu, J.***(2018) Reduction of HIP2 expression causes motor function impairment and increased vulnerability to dopaminergic degeneration in Parkinson's disease models. *Cell Death Dis.* 9:1020.
32. Jiang, X., Zhang, T., Wang, H., Wang, T., Qin, M., Bao,P., Wang, R., Liu, Y., Chang, H., Yan, J. and **Xu, J.*** (2018) Neurodegeneration-associated FUS is a novel regulator of circadian gene expression. *Transl. Neurodegener.* 7:24.
33. Yao, J., Zhang, Q., Liao, X., Li, Q., Liang, S., Li, X., Zhang, Y., Li, X., Wang, H., Qin, H., Wang, M., Li, J., Zhang, J., He, W., Zhang, W., Li, T., Xu, F., Gong, H., Jia, H., **Xu, X.***, **Yan,**

- J. *, Chen, X. * (2018) A corticopontine circuit for initiation of urination. *Nat. Neurosci.* 21:1541-1550.
34. Jiao, Z., Shang, C.*, Wang, Y., Yang, Z., Yang, C., Li, F., Xie, J., Pan, J., Fu, L.*, and **Du, J.***(2018) All-optical imaging and manipulation of whole-brain neuronal activities in behaving larval zebrafish. *Biomed. Opt. Express* 9:6154-6169.
35. Gao, Z., Chen, W., Liu, M., Chen, X., Wan, L., Zhang, X., Yuan, L., Lin, J., Wang, M., Zhou, L., **Xu, X., Sun, Y.*** (2019) Tac1-Expressing Neurons in the Periaqueductal Gray Facilitate the Itch-Scratching Cycle via Descending Regulation. *Neuron* 101:45-59.

Review

1. Li, C., Wang, S., Chen, Y., and **Zhang, X.*** (2018) Somatosensory neuron typing with high-coverage single-cell RNA sequencing and functional analysis. *Neurosci. Bull.* 34:200-207.
2. **Duan, C.***, Pan, Y., Yu, G.* (2018) Onset matters: how collicular activity relates to saccade initiation during cortical cooling. *J. Neurosci.* 38: 3616-3618.

开放课题

- 1、 Wang W, Song N, Jia F, Tang T, Bao W, Zuo C, Xie J, Jiang H. (2018) Genomic DNA levels of mutant alpha-synuclein correlate with nonmotor symptoms in an A53T Parkinson's disease mouse. *Neurochemistry International.* 114:71-79.
- 2、 Bi M, Jiao Q, Du X, Jiang H. (2018) Glut9-mediated urate uptake is responsible for its protective effects on dopaminergic neurons in Parkinson's disease. *Front Mol Neurosci.* 11: 21.

学术论著

1. Zhen Liu, Yijun Cai, **Qiang Sun.** (2017) Genome Editing of Monkey. Part of the Methods Mol. Biol. Book Series. 1630,141-152.

* Corresponding Authors