

# 2007-2010 年神经科学国家重点实验室发表文章统计

## 2007 年

1. Duan, B., Wu, L., Yu, Y., Ding, Y., Jing, L., Xu, L., Chen, J.\*, and **Xu, T.\*** (2007) Upregulation of acid-sensing ion channel ASIC1a in spinal dorsal horn neurons contributes to inflammatory pain hypersensitivity. *J. Neurosci.* 27: 11139-11148.
2. Zhang, W., Ge, W., and **Wang, Z.\*** (2007) A toolbox for light control of Drosophila behaviors through Channelrhodopsin 2-mediated photoactivation of targeted neurons. *Eur. J. Neurosci.* 26: 2405-2416.
3. Chen, X., Han, F., **Poo, M.\***, and Dan, Y.\* (2007) Excitatory and suppressive receptive field subunits in awake monkey primary visual cortex (V1). *Proc. Natl. Acad. Sci. USA.* 104: 19120-19125

## 2008 年

1. Chen, G., Sima, J., Jin, M., Wang, K., Xue, X., Zheng, W., Ding, Y., and **Yuan, X.\*** (2008) Semaphorin-3A guides radial migration of cortical neurons during development. *Nat. Neurosci.* 11: 36-44.
2. Gong, N., Zhang, M., Zhang, X., Sun, G. and **Xu, T.\*** (2008) The aspirin metabolite salicylate enhances neuronal excitation in rat hippocampal CA1 area through reducing GABAergic inhibition. *Neuropharmacology.* 54:454-463
3. Zhang, Z., Gong, N., Wang, W., Xu, L., and **Xu, T.\*** (2008) Bell-Shaped D-Serine Actions on Hippocampal Long-Term Depression and Spatial Memory Retrieval. *Cereb. Cortex.* 18: 2391-2401.
4. Zhang, L., Gong, N., Fei, D., Xu, L., and **Xu, T.\*** (2008) Glycine Uptake Regulates Hippocampal Network Activity via Glycine Receptor-Mediated Tonic Inhibition. *Neuropsychopharmacology* 33: 701-711.
5. Xi, W., Peng, Y., Guo, J., Ye, Y., Zhang, K., Yu, F., and **Guo, A.\*** (2008) Mushroom bodies modulate salience-based selective fixation behavior in Drosophila. *Eur. J. Neurosci.*, 27: 1441-1451.
6. Zhang, X., Sun, G., Liu, L., Yu, F., and **Xu, T.\*** (2008) Alpha 2 Subunit Specificity of Cyclothiazide Inhibition on Glycine Receptors. *Mol. Pharmacol.* 73: 1195-1202.
7. Shen, B., Zhou, K., Yang, S., Xu, T., and **Wang, Y.\*** (2008) The Kv4.2 mediates excitatory activity-dependent regulation of neuronal excitability in rat cortical neurons. *J. Neurochem.* 105: 773-783.

8. Zheng, J., Shen, W., Lu, T., Zhou, Y., Chen, Q., Wang, Z., Xiang, T., Zhu, Y., Zhang, C., Duan, S., and **Xiong, Z.\*** (2008) Clathrin-dependent endocytosis is required for TrkB-dependent Akt-mediated neuronal protection and dendritic growth. *J. Biol. Chem.* 283: 13280-13288.
9. Zhou, J., Du, W., Zhou, K., Tai, Y., Yao, H., Jia Y., Ding, Y., and **Wang, Y.\*** (2008) Critical role of TRPC6 channels in the formation of excitatory synapses. *Nat. Neurosci.* 11: 741-743.
10. Tai, Y., Feng, S., Ge, R., Du, W., Zhang, X., He, Z., and **Wang, Y.\*** (2008) TRPC6 channels promote dendritic growth via the CaMKIV-CREB pathway. *J. Cell Sci.* 121: 2301-2307.
11. Jia, J., Chen, Q., Zhou, Y., Miao, S., Zheng, J., Zhang, C., and **Xiong, Z.\*** (2008) BDNF-TRKB signaling contributes to activity-dependent changes in synaptic proteins. *J. Biol. Chem.* 283: 21242-21250.
12. Wang, J., Ruan, N., Qian, L., Lei, W., Chen, F., and **Luo, Z.\*** (2008) Wnt/beta-catenin signaling suppresses rapsyn expression and inhibits acetylcholine receptor clustering at the neuromuscular junction. *J. Biol. Chem.* 283: 21668-21675.
13. Wang, H., Guan, J., Bao, L., and **Zhang, X.\*** (2008) Distinct Subcellular Distribution of delta-Opioid Receptor Fused with Various Tags in PC12 Cells. *Neurochem. Res.* 33: 2028-2034.
14. Zhou, X., Wu, K., Liang, B., Fu, X., and **Luo, Z.\*** (2008) TrkB-mediated activation of geranylgeranyltransferase I promotes dendritic morphogenesis. *Proc. Natl. Acad. Sci. USA.* 105: 17181-17186.
15. Xu, C., Zhao, M., **Poo, M.\***, and **Zhang, X.\*** (2008) GABA(B) receptor activation mediates frequency-dependent plasticity of developing GABAergic synapses. *Nat. Neurosci.* 11: 1410-1418.
16. Li, H., Chen, G., Zhou, B., and **Duan, S.\*** (2008) Actin Filament Assembly by MARCKS-PI(4,5)P2 Signaling Is Critical for Dendrite Branching. *Mol. Biol. Cell* 19: 4804-4813.
17. Chen, M., Lu, T., Chen, X., Zhou, Y., Duan, W., and **Xiong, Z.\*** (2008) Differential roles of NMDA receptor subtypes in ischemic neuronal cell death and ischemic tolerance. *Stroke* 39: 3042-3048.
18. Zhang, X., Jiang, P., Gong, N., Hu, X., Fei, D., Xiong, Z., Xu, L., and **Xu, T.\*** (2008) A-type GABA receptor as a central target of TRPM8 agonist menthol. *PLoS One* 3: (10) , e3386.
19. Liu, T., Darteville, L., Yuan, C., Wei, H., Wang, Y., Ferveur J.\* , and **Guo, A.\*** (2008) Increased dopamine level enhances male-male courtship in *Drosophila*. *J. Neurosci.* 28: 5539-5546.
20. Zheng, W. and **Yuan, X.\*** (2008) Guidance of cortical radial migration by diffusible factors. *Cell Adhesion and Migration.* 2: 48-50.

2009 年

1. Jiang, P., Kong, Y., Zhang, X., Wang, W., Liu, C., and **Xu, T.\*** (2009) Glycine receptor in rat hippocampal and spinal cord neurons as a molecular target for rapid actions of 17- $\beta$ -estradiol. *Mol. Pain* 5: 2.
2. Yao, H., Zhou, K., Yan, D., Li, M., and **Wang, Y.\*** (2009) The Kv2.1 channels mediate neuronal apoptosis induced by excitotoxicity. *J. Neurochem.* 108: 909-919.
3. Peng, Y., He, S., Marie, H., Zeng, S., Ma, J., Tan, Z., Lee, S., Malenka, R.\* , and **Yu, X.\*** (2009) Coordinated changes in dendritic arborization and synaptic strength during neural circuit development. *Neuron* 61: 71-84.
4. Luo, X., Zhang, X., Shao, W., Yin, Y., and **Zhou, J.\*** (2009) Crucial roles of MZF-1 in the transcriptional regulation of apomorphine-induced modulation of FGF-2 expression in astrocytic cultures. *J. Neurochem.* 108: 952-961.
5. Li, S., Zhang, C., Takemori, H., **Zhou, Y.\***, and **Xiong, Z.\*** (2009) TORC1 regulates activity-dependent CREB-Target gene transcription and dendritic growth of developing cortical neurons. *J. Neurosci.* 29: 2334-2343.
6. Liu, T., Darteville, L., Yuan, C., Wei, H., Wang, Y., Ferveur, J\*, and **Guo, A.\*** (2009) Reduction of dopamine level enhances the attractiveness of male *Drosophila* to other males. *PLoS ONE* 4: e4574.
7. Song, A., Wang, D., Chen, G., Li, Y., Luo, J., **Duan, S.\***, and **Poo, M.\*** (2009) A selective filter for cytoplasmic transport at the axon initial segment. *Cell* 136: 1148-1160.
8. Yang, S., Cao, Q., Zhou, K., Feng, Y., and **Wang, Y.\*** (2009) Transient receptor potential channel C3 contributes to the progression of human ovarian cancer. *Oncogene* 28: 1320-1328.
9. Yin, M., Liu, S., Yin, Y., Li, S., Wu, X., Ang, S., Ding, Y., and **Zhou, J.\*** (2009) Ventral mesencephalon-enriched genes that regulate the development of dopaminergic neurons in vivo. *J. Neurosci.* 29: 5170-5182.
10. **Xu, T.\***, and Duan, B. (2009) Calcium-permeable acid-sensing ion channel in nociceptive plasticity: a new target for pain control. *Prog. Neurobiol.* 87: 171-180.
11. Gao, L., Meng, X., Ye, C., Zhang, H., Liu, C., Dan, Y., Poo, M., He, J.\* , and **Zhang, X.\*** (2009) Entrainment of Slow Oscillations of Auditory Thalamic Neurons by Repetitive Sound Stimuli. *J. Neurosci.* 29: 6013-6021.
12. Zhou, Y., Lu, T., and **Xiong, Z.\*** (2009) NGF-dependent retrograde signaling: survival versus death. *Cell Res.* 19: 525-526.
13. Zhang, X., Zhou, Z., Wang, D., Li, A., Yin, Y., Gu, X., Ding, F., Zhen, X.\* , and **Zhou, J.\*** (2009) Activation of phosphatidylinositol-linked D1-like receptor modulates FGF-2 expression in astrocytes via IP3-dependent Ca<sup>2+</sup> signaling. *J. Neurosci.* 29: 7766-7775.
14. Qiu, L., Lu, T., Hu, X., Yi, Y., Liao, W., and **Xiong, Z.\*** (2009) Limbic epileptogenesis in a

mouse model of fragile X syndrome. **Cereb. Cortex.** 19: 1504-1514.

15. Yang, H., Yu, Y., Li, W., Yu, F., Cao, H., **Xu, T.\***, and Jiang, H.\* (2009) Inherent dynamics of the acid-sensing ion channel 1 correlates with the gating mechanism. **PLoS Biol.** 7: e1000151.
16. Tong, X., Li, X., Zhou, B., Shen, W., Zhang, X., Xu, T., and **Duan, S.\*** (2009) Ca<sup>2+</sup> signaling evoked by activation of Na<sup>+</sup> channels and Na<sup>+</sup>/Ca<sup>2+</sup> exchangers is required for GABA-induced NG2 cell migration. **J. Cell Biol.** 186: 113-128.
17. Hu, W., Tian, C., Li, T., Yang, M., Hou, H., and **Shu, Y.\*** (2009) Distinct contributions of Nav1.6 and Nav1.2 in action potential initiation and backpropagation. **Nat. Neurosci.** 12: 996-1002.
18. Song, C.\* , and **Yao, H.** (2009) Duality in binocular rivalry: distinct sensitivity of percept sequence and percept duration to imbalance between monocular stimuli. **PLoS ONE** 4(9): e6912.
19. Tan, Z., and **Yao, H.\*** (2009) The Spatiotemporal Frequency Tuning of LGN Receptive Field Facilitates Neural Discrimination of Natural Stimuli. **J. Neurosci.** 29: 11409-11416.
20. Zhu, X., Liu, Y., Yin, Y., Shao, A., Zhang, B., Kim, S., and **Zhou, J.\*** (2009) MSC p43 required for axonal development in motor neurons. **Proc. Natl. Acad. Sci. USA.** 106: 15944-15949.
21. Zhang, S., Xu, M., Miao, Q., **Poo, M.\***, and **Zhang, X.\*** (2009) Endocannabinoid-dependent homeostatic regulation of inhibitory synapses by miniature excitatory synaptic activities. **J. Neurosci.** 29: 13222-13231.
22. Shi, Y., Ding, X., He, Z., Zhou, K., Wang, Q.\* , and **Wang, Y.\*** (2009) Critical role of TRPC6 channels in G2 phase transition and the development of human esophageal cancer. **GUT** 58: 1443-1450.
23. **Wen, Y.\***, and Zhang, Q. (2009) Ensemble cortical responses to rival visual stimuli: effect of monocular transient. **Biochem.Bioph. Res. Co.** 380: 105-110.
24. Chen, M., Chen, Q., Cheng, X., Lu, T., Liu, H., Jia, J., Zhang, C., Xu, L., and **Xiong, Z.\*** (2009) Zn<sup>2+</sup> mediates ischemia-induced impairment of the ubiquitin-proteasome system in the rat hippocampus. **J. Neurochem.** 111: 1094-1103.
25. Li, X., Yu, F., and **Guo, A.\*** (2009) Sleep Deprivation Specifically Impairs Short-term Olfactory Memory in Drosophila. **Sleep** 32: 1417-1424.
26. Zhao, C., Li, K., Li, J., Zheng, W., Liang, X., Geng, A., Li, N., and **Yuan, X.\*** (2009) PKC $\delta$  regulates cortical radial migration by stabilizing the Cdk5 activator p35. **Proc. Natl. Acad. Sci. USA.** 106: 21353-21358.
27. Gong, N., Li, Y., Cai, G., Niu, R., Fang, Q., Wu, K., Chen, Z., Lin, L., Xu, L., Fei, J., and **Xu, T.\*** (2009) GABA Transporter-1 Activity Modulates Hippocampal Theta Oscillation and Theta Burst Stimulation-Induced Long-Term Potentiation. **J. Neurosci.** 29: 15836-15845.

## 2010 年

1. Zhao, X., Wang, W., Tan, J., Huang, J., Zhang, X., Zhang, B., Wang, Y., YangCheng, H., Zhu, H., Sun, X., and **Huang, F.\*** (2010) Expression of  $\beta$ -Amyloid Induced Age-Dependent Presynaptic and Axonal Changes in Drosophila. *J. Neurosci.* 30: 1512-1522.
2. Ye, C., Poo, M., Dan, Y.\*, and **Zhang, X.\*** (2010) Synaptic Mechanisms of Direction Selectivity in Primary Auditory Cortex. *J. Neurosci.* 30: 1861-1868.
3. Huang, C.\*, Gu, S., Yu, P., Yu, F., Feng, C., Gao, N., and **Du, J.\*** (2010) Deficiency of smarcal1 causes cell cycle arrest and developmental abnormalities in zebrafish. *Dev. Biol.* 339: 89-100.
4. Yu, P., Gu, S., Bu, J., and **Du, J.\*** (2010) TRPC1 is essential for in vivo angiogenesis in zebrafish. *Circ. Res.* 106: 1221-1232.
5. He, S., Yao, J., Zhang, F., Wang, Q., Bao, L., and **Zhang, X.\*** (2010) Inflammation and nerve injury induce expression of pancreatitis-associated protein-II in primary sensory neurons. *Mol. Pain* 6: 23.
6. Chen, Z., Wang, Q., and **Wang, Z.\*** (2010) The Amiloride-Sensitive Epithelial Na<sup>+</sup> Channel PPK28 Is Essential for Drosophila Gustatory Water Reception. *J. Neurosci.* 30: 6247-6252.
7. Li, N., Zhao, C., Wang, Y., and **Yuan, X.\*** (2010) The Transcription Factor Cux1 Regulates Dendritic Morphology of Cortical Pyramidal Neurons. *PLoS One* 5: e10596.
8. Pan, X., Gong, N., Zhao, J., Yu, Z., Gu, F., Chen, J., Sun, X., Zhao, L., Yu, M., Xu, Z., Dong, W., Qin, Y., Fei, G., Zhong, C.\*, and **Xu, T.\*** (2010) Powerful beneficial effects of benfotiamine on cognitive impairment and beta-amyloid deposition in amyloid precursor protein/presenilin-1 transgenic mice. *Brain* 133: 1342-1351.
9. Tan, Z., Peng, Y., Song, H., Zheng, J., and **Yu, X.\*** (2010) N-cadherin-dependent neuron–neuron interaction is required for the maintenance of activity-induced dendrite growth. *Proc. Natl. Acad. Sci. USA.* 107: 9873-9878.
10. Hu, A., Zhang W., and **Wang, Z.\*** (2010) Functional feedback from mushroom bodies to antennal lobes in the Drosophila olfactory pathway. *Proc. Natl. Acad. Sci. USA.* 107: 10262-10267.
11. He, S., Ma, J., Liu, N., and **Yu, X.\*** (2010) Early enriched environment promotes neonatal GABAergic neurotransmission and accelerates synapse maturation. *J. Neurosci.* 30: 7910-7916.
12. Wu, K., Zhou, X., and **Luo, Z.\*** (2010) Geranylgeranyltransferase I is essential for dendritic development of cerebellar Purkinje cells. *Mol. Brain* 3: 18.
13. Zhang, R., Wei, H., Xia, Y., and **Du, J.\*** (2010) Development of light response and GABAergic excitation-to-inhibition switch in zebrafish retinal ganglion cells. *J. Physiol.* 588:

2557-2569.

14. Wang, H., Zhao, B., Zhong, Y., Li, K., Li, Z., Wang, Q., Lu, Y., Zhang, Z., He, S., Zheng, H., Wu, S., Hökfelt, T.\*, Bao, L.\*, and **Zhang, X.\*** (2010) Coexpression of  $\delta$ - and  $\mu$ -opioid receptors in nociceptive sensory neurons. *Proc. Natl. Acad. Sci. USA.* 107: 13117-13122.
15. Ding, X., He, Z., Zhou, K., Cheng, J., Yao, H., Lu, D., Cai, R., Jin, Y., Dong, B., Xu, Y., and **Wang, Y.\*** (2010) Essential Role of TRPC6 Channels in G2/M Phase Transition and Development of Human Glioma. *J. Natl. Cancer Inst.* 102: 1052-1068.
16. Xue, X., and **Yuan, X.\*** (2010) Nestin is essential for mitogen-stimulated proliferation of neural progenitor cells. *Mol. Cell Neurosci.* 45: 26-36.
17. He, M., Zhang, Z., Guan, C., Xia, D., and **Yuan, X.\*** (2010) Leading tip drives soma translocation via forward F-Actin flow during neuronal migration. *J. Neurosci.* 30: 10885-10898.
18. Zhang, F., Liu, X., Gong, L., Yao, J., Li, K., Li, Z., Lin, L., Lu, Y., Xiao, H., Bao, L., Zhang, X., and **Zhang, X.\*** (2010) Inhibition of inflammatory pain by activating B-Type natriuretic peptide signal pathway in nociceptive sensory neurons. *J. Neurosci.* 30: 10927-10938.
19. Wang, J., Fu, X., Lei, W., Wang, T., Sheng, A., and **Luo, Z.\*** (2010) Nuclear Factor  $\kappa$ B Controls Acetylcholine Receptor Clustering at the Neuromuscular Junction. *J. Neurosci.* 30: 11104-11113.
20. Liang, B., Duan, B., Zhou, X., Gong, J., and **Luo, Z.\*** (2010) Calpain activation promotes bace1 expression, APP processing, and amyloid plaque formation in a transgenic mouse model of Alzheimer disease. *J. Biol. Chem.* 285: 27737-27744.
21. Chen, Q., Zhu, Y., Yu, J., Miao, S., Zheng, J., Xu, L., Zhou, Y., Li, D., Zhang, C., Tao, J., and **Xiong, Z.\*** (2010) CDKL5, a protein associated with rett syndrome, regulates neuronal morphogenesis via rac1 signaling. *J. Neurosci.* 30: 12777-12786.
22. Huang, J., Zhang, W., Qiao, W., Hu, A., and **Wang, Z.\*** (2010) Functional connectivity and selective odor responses of excitatory local interneurons in Drosophila antennal lobe. *Neuron* 67: 1021-1033.
23. Yu, Y., Chen, Z., Li, W., Cao, H., Feng, E., Yu, F., Liu, H., Jiang, H.\*, and **Xu, T.\*** (2010) A nonproton ligand sensor in the Acid-sensing ion channel. *Neuron* 68: 61-72.
24. Du, W., Huang, J., Yao, H., Zhou, K., Duan, B., and **Wang, Y.\*** (2010) Inhibition of TRPC6 degradation suppresses ischemic brain damage in rats. *J. Clin. Invest.* 120: 3480-3492.
25. Peng, Y., Zeng, S., Song, H., Li, M., Yamada, M., and **Yu, X.\*** (2010) Postsynaptic spiking homeostatically induces cell-autonomous regulation of inhibitory inputs via retrograde signaling. *J. Neurosci.* 30: 16220-16231.
26. Li, S., Yin, M., Liu, S., Chen, Y., Yin, Y., Liu, T., and **Zhou, J.\*** (2010) Expression of ventral

diencephalon-enriched genes in zebrafish. *Dev. Dyn.* 239: 3368-3379.

27. Li, W., Yu, Y., Zhang, Z., Cao, H., and **Xu, T.\*** (2010) ASIC3 channels integrate agmatine and multiple inflammatory signals through the nonproton ligand sensing domain. *Mol. Pain* 6: 88.

## Review

1. **Zhang, X.\***, Bao, L.\*, and Ma, G. (2010) Sorting of neuropeptides and neuropeptide receptors into secretory pathways. *Prog. Neurobiol.* 90: 276-283.
2. Ding, X., He, Z., Shi, Y., Wang, Q., and **Wang, Y.\*** (2010) Targeting TRPC6 channels in oesophageal carcinoma growth. *Expert Opin Ther Targets* 14: 513-527.
3. **Xu, T.\***, and Gong, N. (2010) Glycine and glycine receptor signaling in hippocampal neurons: diversity, function and regulation. *Prog. Neurobiol.* 91: 349-361.
4. **Poo, M.\*** (2010) Neuroscience in China 2000-2009: Introduction. *Sci China Life Sci.* 53: 301-303.
5. **Yuan, X.\*** (2010) Axon guidance and neuronal migration research in China. *Sci China Life Sci.* 53: 304-314.
6. **Luo, Z.\*** (2010) Synapse formation and remodeling. *Sci China Life Sci.* 53: 315-321.
7. **Zhang, X.\*** and Poo, M. (2010) Progress in neural plasticity. *Sci China Life Sci.* 53: 322-329.
8. **Duan, S.\*** (2010) Progress in glial cell studies in some laboratories in China. *Sci China Life Sci.* 53: 330-337.
9. **Jiao, J.\*** (2010) Embryonic and adult neural stem cell research in China. *Sci China Life Sci.* 53: 338-341.
10. **Wang, Y.\*** and **Xu, T.\*** (2010) Ion channels in neuronal survival. *Sci China Life Sci.* 53: 342-347.
11. **Zhou, J.\*** (2010) Recent progress in neurodegenerative disorder research in China. *Sci China Life Sci.* 53: 348-355.
12. **Zhang, X.\*** (2010) Pain research in China. *Sci China Life Sci.* 53: 356-362.
13. **Yao, H.\***, **Lu, H.\***, and **Wang, W.\*** (2010) Visual neuroscience research in China. *Sci China Life Sci.* 53: 363-373.
14. **Guo, A.\***, Zhang, K., Peng, Y., and Xi, W. (2010) Research progress on Drosophila visual cognition in China. *Sci China Life Sci.* 53: 374-384.
15. **Wu, S.\***, and Liang, P. (2010) Computational neuroscience in China. *Sci China Life Sci.* 53: 385-397.
16. Wang, J., Lu, R., and **Wang, Y.\*** (2010) Regulation of  $\beta$  cleavage of amyloid precursor protein. *Neurosci. Bull.* 26: 417-427.

17. **Qiu, Z.\***, and Cheng, J. (2010) The role of calcium-dependent gene expression in autism spectrum disorders: lessons from MeCP2, Ube3a and beyond. *Neurosignals* 18: 72-81.