

## CEBSIT Recent Publications

### (2025.01-2025.12)

1. Zhang, L\*, Xu, Z., Jia, Z., Cai, S., Wu, Q., Liu, X., Hu, X., Bai, T., Chen, Y., Li, T., Liu, Z., Wu, B., Zhu, J., **Zhou, H.\***(2025) Modulating mTOR-dependent astrocyte substate transitions to alleviate neurodegeneration. *Nature Aging*. 5: 468–485.
2. Luo, T., Xu, M., Zheng, Z., **Gouki, O.\***(2025)Limitation of switching sensory information flow in flexible perceptual decision making. *Nat. Commun.*16:172.
3. Zhu, W., Meng, J., Li, Y., Gu, L., Liu, W., Li, Z., Shen, Y., Shen, X., Wang, Z., Wu, Y., Wang, G., Zhang, J., Zhang, H., Yang, H., Dong, X., Wang, H., Huang, X., **Sun, Y.\***, Li, C.\* , Mu, L.\* , **Liu, Z.\*** (2025)Comparative proteomic landscapes elucidate human preimplantation development and failure.*Cell*. 188: 814-831.
4. Zhang, M., Feng, J., Xie, C., Song, N., Jin, C., Wang, J., Zhao, Q., Zhang, L., Wang, B., Sun, Y., Guo, F., Li, Y.\* , **Zhu, S.\***(2025)Assembly and architecture of endogenous NMDA receptors in adult cerebral cortex and hippocampus. *Cell*. 188: 1198-1207.
5. Sun, Y., Re, M., Zhang, Y., Li, S., Luo, Z., Sun, S., He, S., Wang, G., Zhang, D., Mansour, S., Song, L., **Liu, Z.\***(2025)Casz1 is required for both inner hair cell fate stabilization and outer hair cell survival. *Science*. 388: eado4930.
6. Huang, X., Sun, X., Wang, Q., Zhang, J., Wen H., Chen, W.\* , **Zhu, S.\***(2025)Structural insights into the diverse actions of magnesium on NMDA receptors. *Neuron*.113: 1006-1018.
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8. Zhang J, Duan J, Li W, Wang X, Ren S, Ye L, Liu F, Tian X, Xie Y, Huang Y, Sun Y, Song N, Li T, Cai X, Liu Z, Zhou H, Huang C, Li Y, Zhu S, Guo F. (2025)An antidepressant mechanism underlying the allosteric inhibition of GluN2D-incorporated NMDA receptors at GABAergic interneurons. *Sci. Adv.* 11:eadq0444.
9. Feng, X., Zhu, Z., Wang, H., Zhou, H., Liu, J., Shen, Y., Zhang, Y., **Xiong, Z.\*** (2025) A Novel Mouse Model Unveils Protein Deficiency in Truncated CDKL5 Mutations. *Neurosci. Bull.* 41:

10. Fang, W., Jiang, X., Chen, J., Zhang, C., **Wang, L.\*** (2025) Oscillatory control over representational geometry of sequence working memory in macaque frontal cortex. *Curr Biol.* 2025 Mar 8:S0960-9822(25)00194-0.
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  17. Qin, H., Yu, S., Han, R., **He, J.\*** (2025) Age-dependent glial heterogeneity and traumatic injury responses in a vertebrate brain structure. *Cell Rep*. 44:115508.
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  21. Tian, Y., Kang, L., Ha, N., Deng, J., **Liu, D.\*** (2025) Hydrogen peroxide in midbrain sleep neurons regulates sleep homeostasis. *Cell Metab*. 37:1442-1452.e7.
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  24. Zeng, Z., Zhang, C., Xu, Y., He, H.\*, **Gu, Y.\*** (2025) Distinct neural population code and causal roles of primate caudate nucleus in multimodal decision-making. *Nature Communications* 16(1): 5253.
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