

CEBSIT Recent Publications

(2024.01-2024.12)

1. Fang, W.*, Liu, Y., Wang, L.(2024)Multisensory Integration in Body Representation. **Adv. Exp. Med. Biol.** 1437:77.
2. Jiao, Z., Zhang, M., Wu, Y., Li, S., Gao, M., Zhang, W., **Xu, X.** *(2024)Acute Recruitment of VTA Dopamine Neurons by mPOA Esr1+ Neurons to Facilitate Consummatory Male Mating Actions. **Neurosci. Bull.** 40:1745-1750.
3. **Poo, M.***(2024)China's new ethical guidelines for the use of brain-computer interfaces. **NSR.** 11.
4. Zi, H., Peng, X., Sun, L., Li, H., Shen, X., Chen, M., Deng, Q., Hua, Y., Du, J., Li, J.(2024) Foxc1b regulates brain pericyte proliferation in zebrafish larvae. **J. Genet. Genomics.** 51: 1334.
5. Simpson, M., Wu, J., Ye, Z.*(2024) Subliminal priming modulates motor sequence Learning. **Mem. Cognition.** 53:1539–1550.
6. Zheng, Q., **Gu, Y.*** (2024) From Multisensory Integration to Multisensory Decision-Making. **Adv. Exp. Med. biolo.** 1437: 23.
7. Huang, X., Chen, W., Zhu, S. (2024) Expression and Purification of Mammalian NMDA Receptor Protein for Functional Characterization. **Methods in molecular biology.** 2799:13.
8. Li, Q., Jia, S., Zhang, T., Chen, L.(2024)Adaptive Timestep Improved Spiking Neural Network for Efficient Image Classification. **Acta Automatica Sinica.** 50: 1724.
9. **Poo, M.***(2024)In search of problems. **Cell.** 187.
10. Zhang, M., **Yu, Q.***(2024) The representation of abstract goals in working memory is supported by task-congruent neural geometry. **Plos Biol.** 22.
11. Tang, S., Cui, L., Pan, J., **Xu, N.***(2024) Dynamic ensemble balance in direct- and indirect-pathway striatal projection neurons underlying decision-related action selection.**Cell Rep.** 43.
12. Dou, Y.*, Liu, Y., Ding, W., Li, Q., Zhou, H., Li, L., Zhao, M., Li, Z., Yuan, J., Wang, X., Zou, W., Li,

- A., Sun, Y.*(2024)Single-neuron projectome-guided analysis reveals the neural circuit mechanism underlying endogenous opioid antinociception. *NSR*. 11.
13. Yao, J., Hou, R., Fan, H., Liu, J., Chen, Z., Hou, J., Cheng, Q., Li, C.* (2024) Prefrontal projections modulate recurrent circuitry in the insular cortex to support short-term memory. *Cell Rep*. 43.
 14. Xiao, Y., Chen, X., Xu, X., Li, C., Poo, M., Chen, S.(2024)Space brain research: progress and prospect. *Scientia Sinica Vitae*. 54:325.
 15. Tian, Z., Chen, J., Zhang, C., Min, B.*, Xu, B., Wang, L. *(2024) Mental programming of spatial sequences in working memory in the macaque frontal cortex. *Science*. 385: eadp6091.
 16. Cui, L., Tang, S., Pan, J., Deng, L., Zhang, Z., Zhao, K., Si, B., Xu, N.* (2024) Causal contributions of cell-type-specific circuits in the posterior dorsal striatum to auditory decision-making. *Cell Rep*. 44.
 17. Zhang, R., Deng, H., Xiao, X.*(2024)The Insular Cortex: An Interface Between Sensation, Emotion and Cognition. *Neurosci. Bull*. 40: 1763.
 18. Wang, P., Deng, H., Xu, R.*, Du, J.*, Tao, R.*(2024)Improvement in Tol2 transposon for efficient large-cargo capacity transgene applications in cultured cells and zebrafish. *Zool. Res*. 45: 567.
 19. Huang, Y., Wang, S., Wang, Q., Zheng, C., Yang, F., Wei, L., Zhou, X., Wang, Z.* (2024) Glutamatergic Circuits in the Pedunculopontine Nucleus Modulate Multiple Motor Functions. *Neurosci. Bull*. 40: 1713.
 20. Chen, J., Zhang, C., Hu, P., Min, B.*, Wang, L.* (2024)Flexible control of sequence working memory in the macaque frontal cortex. *Neuron*. 112.
 21. Liu, D.* (2024) The power of direct observation: discovery of REM sleep. *Nat. Rev. Neurosci*. 25: 595.
 22. Zi, H., Peng, X., Cao, J., Xie, T., Liu, T., Li, H., Bu, J., Du, J.*, Li, J.*(2024)Piezo1-dependent regulation of pericyte proliferation by blood flow during brain vascular development. *Cell Rep*. 43:113652
 23. Yu, S., Zhang, X., Sun, Y.* (2024) Peripheral and central innervation pattern of mechanosensory neurons in the trigeminal ganglion. *Neurosci*. 565.
 24. Liu, Y., Lou, S., Li, J.,; Liu, Y., Huang, S., Wei, Y., Liu, J., Lv, R., Tang, J., Shen, Z., Sun, Y., Huang, X.*, Xiong, Z.*, Yang, H.*, Zhou, C.*(2024)Epigenetic editing alleviates Angelman syndrome phenotype in mice by unsilencing paternal Ube3a. *Cell Discov*. 10.

25. Li, C., Liu, X., Li, Y., Wang, Y., Nie, Y., Xu, Y., Zhang, X., Lu, Y., **Sun, Q.*** (2024) Generation of mitochondrial replacement monkeys by female pronucleus transfer. *Zool. Res.* 45:292.
26. Zi, H., Peng, X., **Du, J.***, Li, J.* (2024) Protocol for generating a pericyte reporter zebrafishlineKi(pdgfrb-P2A-GAL4-VP16) using aCRISPR-Cas9-mediated knockin technique. *Star protocols*.6: 103490.
27. Zhang, D., **Zhang, T.***, Jia, S., Wang, Q., Xu, B.* (2024) Tuning Synaptic Connections Instead of Weights by Genetic Algorithm in Spiking Policy Network. *Mach. Intell. Res.* 21: 906-918.
28. **Xu, N.*** (2024) How the brain's primary processing units compute to give rise to intelligence. *Nat. Rev. Neurosci.* 25: 288.
29. Li, Y., Zhu, W., Qian, Y., Yang, H., Wu, Y., Meng, J., Huang, X.*, **Liu, Z.***, Mu, L.* (2024) Transcriptomic profiling of day 3 human embryos of poor quality reveals molecular links to divergent developmental trajectories. *Cell Rep.* 43.
30. Yang, D., Wu, X., Yao, Y., Duan, M., Wang, X., Li, G., Guo, A., Wu, M., Liu, Y., Zheng, J., Zhang, R., Li, ., Luk, A., Yao, X.*, Shi, L.*, Xu, C.*, **Yang, H.*** (2024) An RNA editing strategy rescues gene duplication in a mouse model of MECP2 duplication syndrome and nonhuman primates. *Nat. Neurosci* 28.
31. Tong, H., Li, T., Yang, H.* (2024) Programmable G-to-Y base editing using engineered DNA glycosylase. *Life med.*3.
32. Shi, D., Yu, Q.* (2024) Distinct neural signatures underlying information maintenance and manipulation in working memory. *Cereb. Cortex.* 34.
33. Liao, Z., Zhang, J., Sun, Y., Li, Y., Xu, Y., Li, C., Cao, J., Nie, Y., Niu, Z., Liu, J., Lu, F.*, **Liu, Z.***, **Sun, Q.*** (2024) Reprogramming mechanism dissection and trophoblast replacement application in monkey somatic cell nuclear transfer. *Nat. Commun.* 15: 5.
34. **Angelovski, G.***, Tickner, B., Wang, G. (2024) Opportunities and challenges with hyperpolarized bioresponsive probes for functional imaging using magnetic resonance (2024) *Nat. Chem.* 17: 297.
35. Zuo, Y., Wang, Z. (2024) Neural Oscillations and Multisensory Processing. *Adv. Exp. Med. biol.* 1437: 121-137.
36. Wang, K., Chen, T., Zhang, X., Cao, J., Wang, P., Wang, M., **Du, J.***, **Mu, Y.***, Tao, R.* (2024) Unveiling tryptophan dynamics and functions across model organisms via quantitative imaging. *Bmc Biol.* 22.

37. Qu, X., Yang, P., Zhai, R.*, **Xiong, Z.*** (2024) Inhibition of RtTg neurons reverses methamphetamine-induced attention deficits. *Acta Neuropathol Commun.* 12.
38. Zhang, Y., **Xu, C.***, **Gu, Y.*** (2024) Context Processing in Contextual and Cued Fear Extinction. *Neurosci. Bull.* 40: 835-839.
39. Wu, L., Jiang, S., Shi, M., Yuan, T., Li, Y., Huang, P., Li, Y., **Zuo, E.***, **Zhou, C.***, **Sun, Y.*** (2024) Adenine base editors induce off-target structure variations in mouse embryos and primary human T cells. *Genome Biol.* 25.
40. Yue, P., Nagendraraj, T., Wang, G., Jin, Z., **Angelovski, G.***(2024) The role of responsive MRI probes in the past and the future of molecular imaging. *Chem. Sci.* 15:20122-20154
41. Kong, X.*, Li, T., **Yang, H.***(2024)AAV-mediated gene therapies by miniature gene editing tools. *Sci. China-Life Sci.* 67:2540-2553.
42. Yan, C., Yang, Z., Chen, P., Yeh, Y., Sun, C., Xie, T.*, **Huang, W.***, Zhang, X.* (2024) GPR65 sensing tumor-derived lactate induces HMGB1 release from TAM via the cAMP/PKA/CREB pathway to promote glioma progression. *J. Exp. Clin. Canc. Res.* 43.
43. Zhao, M., Cheng, X.*, Chen, L., Zeng, Y., Lin, K., Li, Y., Zheng, Z., Huang, X., Zuo, D., Guo, Xin-Xin; Guo, J., He, D., Liu, Y., Lin, Y., Wang, C., Lv, W., Su, H., Yao, X., Ye, Z., Chen, X., Lu, Y., Huang, C., Yang, G., Zhang, Y., Lin, M., Wang, N., **Xiong, Z.***, Chen, W.* (2024) Antisense oligonucleotides enhance SLC20A2 expression and suppress brain calcification in a humanized mouse model. *Neuron.* 112.
44. Zhang, G.*, Ma, J., Chan, P., **Ye, Z.*** (2024) Impaired sequence manipulation in non-demented patients with progressive supranuclear palsy. *Brain Behav.* 14.
45. Xu, B., Wu, J., Xiao, H., Muento, T., **Ye, Z.*** (2024) Inferior parietal cortex represents relational structures for explicit transitive inference. *Cereb. Cortex.* 34.
46. Massoumi, R., **Shi, Y.*** (2024) Editorial: Celebration of DNA Day. *Hereditas.* 161.
47. Ye, J., Xu, Y., Ren, Q., Liu, L., **Sun, Q.*** (2024) Nutrient deprivation induces mouse embryonic diapause mediated by Gator1 and Tsc2. *Development.* 151.
48. Wang, Y., Wang, Y., Zhang, X., Du, J., Zhang, T., Xu, B. (2024) Brain topology improved spiking neural network for efficient reinforcement learning of continuous control. *Front. Neurosci.* 18.

49. Mao, Y., Li, Y., Yang, Z., Xu, N., Zhang, S., Wang, X., Yang, X., **Sun, Q.***, **Mao, Y.*** (2024) Comparative transcriptome analysis between rhesus macaques (*Macaca mulatta*) and crab-eating macaques (*M. fascicularis*). **Zool. Res.** 45: 299-310.
50. Huang, J., He, B., Yang, X., Long, X., Wei, Y., Li, L., Tang, M., Gao, Y., Fang, Y., Ying, W., Wang, Z., Li, C., Zhou, Y., Li, S., Shi, L., Choi, S., **Zhou, H.***, Guo, F.* , **Yang, H.***, Wu, J.*(2024) Generation of rat forebrain tissues in mice. **Cell.** 187.
51. Yang, Y.*, Yu, M., Lu, Y., Gao, C., Sun, R., Zhang, W., Nie, Y., Bian, X., Liu, Z.*, **Sun, Q.*** (2024) Characterizing the rhythmic oscillations of gut bacterial and fungal communities and their rhythmic interactions in male cynomolgus monkeys. **Microbiol. Spectr.** 12.
52. Tong, H.* , Wang, H., Wang, X., Liu, N., Li, G., Wu, D., Li, Y., Jin, M., Li, H., Wei, Y., Li, T., Yuan, Y., Shi, L., Yao, X., Zhou, Y.*, **Yang, H.***(2024)Development of deaminase-free T-to-S base editor and C-to-G base editor by engineered human uracil DNA glycosylase. **Nat. Commun.** 15.
53. Xiao, Q., Li, G., Han, D., Wang, H., Yao, M., Ma, T., Zhou, J., Zhang, Y., Zhang, X., He, B.,Yuan, Y., Shi, L., Li, T.*, **Yang, H.***, Huang, J.*, Zhang, H.* (2024)Engineered IscB- ω RNA system with expanded target range for base editing. **Nat. Chem. Biol.** 21.
54. Ma, J., Zhang, G.*, Zhao, Z., Chan, P., Ye, Z.*(2024) Levodopa modulates semantic fluency and uniqueness in non-demented patients with progressive supranuclear palsy. **Brain Behav.** 14.
55. Zhang, G., Zhang, S., Zhao, Z., Ma, J., Chan, P., Ye, Z. (2024) Impaired Sequential Working Memory in Patients With Young Onset Parkinson's Disease. **Brain Behav.** 40:855.
56. Yao, W., Zhang, H., Li, S., Song, S., Ye, Z., Zhou, X. (2024) Methamphetamine abuse impairs sequential working memory. **Front. Psychiatry.** 15.
57. Xiao, H., Lang, L., Ye, Z.* , Wu, J.* (2024)Advancing Parkinson's Research: Considerations and Future Directions. **Movement Disord.** 39: 1430-1431.
58. Zhou, K., Wang, T., Zhang, J., Zhang, J., Liu, X., Guan, J., Su, P., Wu, L., Yang, X., Hu, R., Sun, Q., Fan, Z., Yang, S., Chu, X., Song, W., Shang, Y., Zhou, S., Hao, X., Zhang, X., **Sun, Q.***, Liu, X.* , Miao, Y.* (2024) LEUTX regulates porcine embryonic genome activation in somatic cell nuclear transfer embryos. **Cell Rep.** 43.
59. Pan, X., Hu, Y., Lei, G., Wei, Y., Li, J., Luan, T., Zhang, Y., Chu, Y., Feng, Y., Zhan, W., Zhao, C., Meunier, F., Liu, Y., **Li, Y.***, Wang, T.* (2024) Actomyosin-II protects axons from degeneration induced by mild mechanical stress. **J. Cell Biol.** 223.
60. Chang, L., Ran, Y., Yang, M., Auferkorte, O., Butz, E., Hueser, L., Haverkamp, S., Euler, T.,

- Schubert, T. (2024) Spike desensitisation as a mechanism for high-contrast selectivity in retinal ganglion cells. *Front. Cell Neurosci.* 17.
61. Zhao, J., Xue, L., **Mu, Y.**, Ji, P. (2024) From animal biology to simulated models and back: Comment on control of movement of underwater swimmers: Animals, simulated animates and swimming robots. *Phys. Life Rev.* 49: 17-18.
 62. Wang, G.*, You, C.*, Feng, C.*, Yao, W.*, **Zhao, Z.***, Xue, N.*, Yao, Lei.* Modeling and Analysis of Environmental Electromagnetic Interference in Multiple-Channel Neural Recording Systems for High Common-Mode Interference Rejection Performance. *Biosensors-Basel.* 14.
 63. Yuan, T., Wu, L., Li, S., Zheng, J., Li, N., Xiao, X., Zhang, H., Fei, T., Xie, L., Zuo, Z., Li, D., Huang, P., Feng, H., Cao, Y., Yan, N., Wei, X., Shi, L., Sun, Y., Wei, W.*, **Sun, Y.***, Zuo, E.* (2024) Deep learning models incorporating endogenous factors beyond DNA sequences improve the prediction accuracy of base editing outcomes. *Cell Discov.* 10.
 64. Lu, J., Wu, L., Sun, Y., Huang, X., Gao, C., Guo, X., Zeng, H., Qu, X., Chen, Y., Wu, D., Pei, Y.,; Meng, X., Zheng, Y., Liang, C., Zhang, P., Cai, J., Ding, Z., Yang, G., Ren, N., Huang, C., Wang, X., Gao, Q., Sun, Q., Shi, Y., Qiu, S., Ke, A., Shi, G.*, Zhou, J.*, **Sun, Y.***, Fan, J.* (2024) Macro CD5L+ deteriorates CD8+T cells exhaustion and impairs combination of Gemcitabine-Oxaliplatin-Lenvatinib-anti-PD1 therapy in intrahepatic cholangiocarcinoma. *Nat. Commun.* 15.
 65. Jin, M., Lin, J., Li, H., Li, Z., Yang, D., Wang, Y., Yu, Y., Shao, Z., Chen, L., Wang, Z., Zhang, Y., Zhang, X., Wang, N., Xu, C.*, Yang, H.*, Chen, W.*, Li, G.* (2024) Correction of human nonsense mutation via adenine base editing for Duchenne muscular dystrophy treatment in mouse. *Mol. Ther. Nucl. Acids.* 35.
 66. Wu, J., Liu, Y., Kong, X., Zhang, D., Hao, W.*, **Ye, Z.***(2024) Subjective time dilation in abstinent patients with alcohol use disorder. *J. Clin. Exp. Neuropsych.* 46: 878-890.
 67. Jia, Y., Jia, G., Guo, L., Song, N., Wang, Y., Jiang, L., Shu, Y., Chen, Y., **Zhu, S.***, Li, H.*, Li, W.* (2024) Novel heterozygous USH1C mutation impacts hair cell mechanotransduction and causes progressive hearing loss. *Sci. Bull.* 69: 167-172.
 68. Ma, F., Wang, S., Xu, L., Huang, W., Shi, G., Sun, Z., Cai, W., Wu, Z., Huang, Y., Meng, J., Sun, Y., Fang, M., Cheng, M., Ji, Y., Hu, T., Zhang, Y., Gu, B., Zhang, J.*, Song, S.*, **Sun, Y.***, Yan, W.* (2024) Single-cell profiling of the microenvironment in human bone metastatic renal cell carcinoma. *Commun. Biol.* 7.
 69. Li, Y., Lin, J., Huang, X.,; Zeng, R., Zhang, G., Xu, J., Lin, K., Chen, X., He, M., Qiao, J., Cheng, X.,; Zhu, D., **Xiong, Z.**, Chen, W. (2024) Heterozygous Variants in KCNJ10 Cause Paroxysmal

Kinesigenic Dyskinesia Via Haploinsufficiency. *Ann. Neurol.* 96: 758-773.

70. Deng, P., Liu, S., Zhao, Y., Zhang, X., Kong, Y., Liu, L., Xiao, Y., Yang, S., Hu, J., Su, J., Xuan, A., Xu, J., Li, H., Su, X., Wu, J., Jiang, Y., **Mu, Y.***, Shao, Z., Kong, C., Li, B.(2024) Long-working-distance high-collection-efficiency three-photon microscopy for in vivo long-term imaging of zebrafish and organoids. *Science*. 27
71. Qiu, S., Hu, Y., Huang, Y., Gao, T., Wang, X., Wang, D., Ren, B., Shi, X., Chen, Y., Wang, X., Wang, D., Han, L., Liang, Y., Liu, D., Liu, Q., Deng, L., Chen, Z., Zhan, L., Chen, T., Huang, Y., Wu, Q., Xie, T., Qian, L., Jin, C., Huang, J., Deng, W., Jiang, T., Li, X., Jia, X., Yuan, J., Li, A., Yan, J., Xu, N., Xu, L., Luo, Q., **Poo, M.**, Sun, Y.*, Li, C.*, **Yao, H.***, Gong, H.*, **Sun, Y.***, **Xu, C.*** (2024) Whole-brain spatial organization of hippocampal single-neuron projectomes. *Science*. 383, ead9198
72. Zou, Y., Tong, C., Peng, W., Qiu, Y., Li, J., Xia, Y., Pei, M., Zhang, K., Li, W., Xu, M.*, **Liang, Z.*** (2024) Cell-type-specific optogenetic fMRI on basal forebrain reveals functional network basis of behavioral preference. *Neuron*. 112: 1342-1357.e6.
73. Xu, P.*, Peng, J., Yuan, T., Chen, Z., He, H., Wu, Z., Li, T., Li, X., Wang, L., Gao, L., Yan, J., Wei, W., Li, C.*, Luo, Z.*, **Chen, Y.*** High-throughput mapping of single-neuron projection and molecular features by retrograde barcoded labeling. *eLife*. 91: 975-987 .
74. Li, Y., Yu, S., Jia, X., Qiu, X., **He, J.*** Defining morphologically and genetically distinct GABAergic/cholinergic amacrine cell subtypes in the vertebrate retina. *Plos Biol*. In Press.
75. Shang, C., Wang, Y., Zhao, M., Fan, Q., Zhao, S., Qian, Y., Xu, S., Mu, Y.*, Hao, J.*, **Du, J.*** (2024) Real-time analysis of large-scale neuronal imaging enables closed-loop investigation of neural dynamics. *Nat. Neurosci.* 27: 1014 - 1018.
76. WANG, G., Gu, Y., **Liu, Z.*** (2024) Deciphering the genetic interactions between Pou4f3, Gfi1, and Rbm24 in maintaining mouse cochlear hair cell survival. *eLife*. 12: RP90025.
77. Fei, Y., Wu, Q., Zhao, S., Song, K., Han, J., **Liu, C.*** (2024) Diverse and Asymmetric Patterns of Single-Neuron Projectome in Regulating Interhemispheric Connectivity. *Nature Commun.* 15: 3403.
78. Huang, J., He, B., Yang, X., Long, X., Wei, Y., Li, L., Tang, M., Gao, Y., Fang, Y., Ying, W., Wang, Z., Li, C., Zhou, Y., Li, S., Shi, L., Choi, S., Zhou, H.*, Guo, F.*, **Yang, H.***, Wu, J.* (2024) Generation of rat forebrain tissues in mic. *Cell*. 187: 2129-2142.
79. Xiao, H., Liang, L., **Ye, Z.***, Wu, J.* (2024) Subthalamic Nucleus Stimulation Modulates Cognitive Theory of Mind in Parkinson's Disease. *Movement Disord*. 39: 1154-1165.
80. Wang, Y.* , **Du, J.** (2024) Advancing neuroscience through real-time processing of big data:

Transition from open-loop to closed-loop paradigms. *Zool. Res.* 45: 518-519.

81. Wang, P., Deng, H., Xu, R. *, **Du, J. ***, **Tao, R. *** (2024) Improvement in Tol2 transposon for efficient large-cargo capacity transgene applications in cultured cells and zebrafish (*Danio rerio*). *Zool. Res.* 45: 567-574.
82. Shen, C., Shen, B., Liu, D., Han, L., Zou, K., Gan, L., Ren, J., Wu, B., Tang, Y., Zhao, J., Sun, Y., Liu, F., Yu, W., **Yao, H.***, Wu, J.*, Wang, J*. (2024) Bidirectional regulation of levodopa-induced dyskinesia by a specific neural ensemble in globus pallidus external segment. *Cell Rep. Med.* 16: 101566.
83. Zhang, Y., Zhang, W., Wang, L., Liu, D., Xie, T., Le, Z., Li, X., Gong, H., Xu, X., X, M., **Yao H***. (2024) Whole-brain mapping of inputs and outputs of specific orbitofrontal cortical neurons in mice. *Neurosci Bull.* 40: 1681-1698.
84. Li, X., Du, Y., Huang, J., Li, W., Song, W., Fan, R., Zhou, H., Jiang, T., Lu, C., Guan, Z., Wang, X., Gong, H., Li, X., LLi, A., Fu, L.*, **Sun, Y.*** (2025) Link Brain-Wide Projectome to Neuronal Dynamics in the Mouse Brain. *Neurosci. Bull.* 40: 1621-1634.
85. Bi, Z., Ren, M., Zhang, Y., He, S., Song, L., Li, X., **Liu, Z.***(2024) Revisiting the Potency of Tbx2 Expression in Transforming Outer Hair Cells into Inner Hair Cells at Multiple Ages In Vivo. *J. Neurosci.* 44:e1751232024
86. Dou, Y.*, Liu, Y., Ding, W., Li. Q., Zhou, H., Li, L., Zhao, M., Li, Z., Yuan, J., Wang, X., Zou, W., Li, A., **Sun, Y.***(2024) Single neuron projectome-guided analysis revealed the neural circuit mechanism underlying endogenous opioid antinociception. *Natl. Sci. Rev.* 11: nwa195.
87. Gou, L., Wang, Y., Gao, L., Zhong, Y., Xie, L., Wang, H., Zha, X., Shao, X., Xu, H., Xu, X., **Yan, J.***(2024) Gapr for large-scale collaborative single-neuron reconstruction. *Nat. Methods.* 21: 1926–1935.
88. Cheng, X., Zhao, M., Chen, L., Huang, C, Xu, Q., Shao, J., Wang, H., Zhang, Y., Li, X., Xu, X., Yao, X., Lin, K., Xue, H., Wang, H., Chen, Q., Zhu, Y., Zhou, J., Ge, W., Zhu, S., Liu, J., Chen, W.*, **Xiong, Z.***(2024) Astrocytes modulate brain phosphate homeostasis via polarized distribution of phosphate uptake transporter PiT2 and exporter XPR1. *Neuron.* 112: 3126-3142.e8.
89. Zhao, M., Cheng, X.*, Chen, L., Zeng, Y., Lin, K., Li, Y., Zheng, Z., Huang, X., Zuo, D., Guo, X., Guo, J., He, D., Liu, Y., Lin, Y., Wang, C., Lv, W., Su, H., Yao, X., Ye, Z., Chen, X., Lu, Y., Huang, C., Yang, G., Zhang, Y., Lin, M., Wang, N., **Xiong, Z.***, Chen, W. *(2024) Antisense oligonucleotides enhance SLC20A2 expression and suppress brain calcification in a humanized mouse model. *Neuron.* 112: 3278-3294.e7.

90. Xiao, Q., Li, G., Han, D., Wang, H., Yao, M., Ma, T., Zhou, J., Zhang, Y., Zhang, X., He, B., Yuan, Y., Shi, L., Li, T.*, **Yang, H.***, Huang, J., Zhang, H.* (2024) Engineered lscB- ω RNA system with expanded target range for base editing. *Nat. Chem. Biol.* 21: 100–108.
91. Chen, T.#, Deng, Q.#, Lin, K., Zheng, X., Wang, X., Zhong, Y., Ning, X., Li, Y., Xu, F., **Du, J.***, **Du, X.*** (2024) An applicable and efficient retrograde monosynaptic circuit mapping tool for larval zebrafish. *elife* : 100880.1.
92. Yu, G. #, Li, J. #, Zhang, H. #, Zi, H., Liu, M., An, Q., Qiu, T., Li, P., Song, J., Liu, P., Quan, K., Li, S., Liu, Y., Zhu, W. *, **Du, J. *** (2024) Single-cell analysis reveals the implication of vascular endothelial cell-intrinsic ANGPT2 in human intracranial aneurysm. *Cardiovasc Res.* doi: 10.1093/cvr/cvae186.
93. Wang, H., Xie, C., Deng, B., Ding, J., Li, N., Kou, Z., Jin, M., He, J., Wang, Q., Wen, H., Zhang, J., Zhou, Q., Chen, S.*, Chen, X.*, Yuan, T.*, **Zhu, S.***(2024) Structural basis for antibody-mediated NMDA receptor clustering and endocytosis in autoimmune encephalitis. *Nat. Struct. Mol. Biol.* 31: 1987–1996.
94. Xu, X., Du, K., **Mao, D.** (2024) Spatial dissociation between recognition and navigation in the primate hippocampus. *Sci. Adv.* 10.1126/sciadv.ado7392
95. Tian, Z., Chen, J., Zhang, C., Min, B.*, Xu, B., **Wang, L.*** (2024) Mental programming of spatial sequences in working memory in the macaque frontal cortex. *Science.* 385. 10.1126/science.adp60
96. Hao, S.#, Zhu, X.#, Huang, Z.#, Yang, Q.#, Liu, H.#, Wu, Y.#, Zhan, Y.#, Dong, Y.#, Li, C.#, Wang, H., Haasdijk, E., Wu, Z., Li, S., Yan, H., Zhu, L., Guo, S., Wang, Z., Ye, A., Lin, Y., Cui, L., Tan, X., Liu, H., Wang, M., Chen, J., Zhong, Y., Du, W., Wang, G., Lai, T., Cao, M., Yang, T., Xu, Y., Li, L., Yu, Q., Zhuang, Z., Xia, Y., Lei, Y., An, Y., Cheng, M., Zhao, Y., Han, L., Yuan, Y., Song, X., Song, Y., Gu, L., Liu, C., Lin, X., Wang, R., Wang, Z., Wang, Y., Li, S., Li, H., Song, J., Chen, M., Zhou, W., Yuan, N., Sun, S., Wang, S., Chen, Y., Zheng, M., Fang, J., Zhang, R., Zhang, S., Chai, Q., Liu, J., Wei, W., He, J., Zhou, H., Sun, Y., Liu, Z., Liu, C., Yao, J., Liang, Z., Xu, X., Poo, M., Li, C., De Zeeuw, C.*, Shen, Z.*, Liu, Z.*, Liu, L.*, Liu, S.*, **Sun, Y.***, **Liu, C.*** (2024) Cross-species single-cell spatial transcriptomic atlases of the cerebellar cortex. *Science.* 385.
97. Bai, L., Cong, L., Shi, Z., Zhao, Y., Zhang, Y., Lu, B., Zhang, J., Xiong, Z., Xu, N., Mu, Y., **Wang, K.***(2024) Volumetric voltage imaging of neuronal populations in the mouse brain by confocal light-field microscopy. *Nat. Method.* 21: 2160–2170.
98. Wang, X., Wu, S., Yang, H., Bao, Y., Li, Z., Gan, C., Deng, Y., Cao, J., Li, X., Wang, Y., Ren, C.*, Yang, Z.*, **Zhao, Z.***(2024) Intravascular delivery of an ultraflexible neural electrode array for recordings of cortical spiking activity. *Nat. Commun.* 15:9442

99. Huang, Y., Wang, S., Wang, Q., Zheng, C., Yang, F., Wei, L., Zhou, X., **Wang, Z.** (2024) Glutamatergic Circuits in the Pedunculopontine Nucleus Modulate Multiple Motor Functions. *Neurosci. Bull.* 40: 1713-1731.
100. Ye, S., Song, S., Liu, X., Luo, Y., **Cai, S.*** (2024) A small-molecule screen identifies novel aging modulators by targeting 5-HT/DA signaling pathway. *Aging Cell.* In Press.
101. Zhang, Y., Bai, L., Wang, X., Zhao, Y., Zhang, T., Ye, L., Du, X., Zhang, Z., Du, J., **Wang, K.** (2024) Super-resolution imaging of fast morphological dynamics of neurons in behaving animals. *Nat. Methods.* 22: 177–186.