

Selected Publications Using RWD Fiber Photometry System

Latest update time: September 5th, 2024

We select a series of high reputed papers using RWD fiber photometry system. We categorize them into different research topics for you to better check.

Research topics:

[Learning and Memory](#)

[Rewards and Addictions](#)

[Emotion](#)

[Exercise](#)

[neurodegenerative disease](#)

[Pain and Motivation](#)

[Psychiatric disorders](#)

[Obesity](#)

[Aggression and Defensive Behavior](#)

[Brain stimulation](#)

[Others](#)

Learning and Memory

Li, Ya-Dong et al. "Hypothalamic modulation of adult hippocampal neurogenesis in mice confers activity-dependent regulation of memory and anxiety-like behavior." *Nature neuroscience* vol. 25,5 (2022): 630-645.

Li, Ya-Dong et al. "Activation of hypothalamic-enhanced adult-born neurons restores cognitive and affective function in Alzheimer's disease." *Cell stem cell* vol. 30,4 (2023): 415-432.e6.

Wang, Xinshang et al. "PJA1 mediates the effects of astrocytic GPR30 on learning and memory in female mice." *The Journal of clinical investigation* vol. 133,18 e165812. 15 Sep.

Viellard, Juliette M A et al. "A subiculum-hypothalamic pathway functions in dynamic threat detection and memory updating." *Current biology : CB* vol. 34,12 (2024): 2657-2671.e7.

Rewards and Addictions

Zan, Gui-Ying et al. "Amygdalar κ -opioid receptor-dependent upregulating glutamate transporter 1 mediates depressive-like behaviors of opioid abstinence." *Cell reports* vol. 37,5 (2021): 109913.

Du, Yonglan et al. "Dopamine release and negative valence gated by inhibitory neurons in the laterodorsal tegmental nucleus." *Neuron* vol. 111,19 (2023): 3102-3118.e7.

Chen, Ruo-Song et al. "Glutamatergic neurons in ventral pallidum modulate heroin addiction via epithalamic innervation in rats." *Acta pharmacologica Sinica* vol. 45,5 (2024): 945-958.

Astrocytic Bestrophin1 in the Anterior Cingulate Cortex Modulates the Formation and Persistence of Morphine Addiction Memory. Research Square preprint. doi.org/10.21203/rs.3.rs-4272120/v1

Emotion

Zan, Gui-Ying et al. "Amygdalar κ -opioid receptor-dependent upregulating glutamate transporter 1 mediates depressive-like behaviors of opioid abstinence." *Cell reports* vol. 37,5 (2021): 109913.

Li, Ya-Dong et al. "Hypothalamic modulation of adult hippocampal neurogenesis in mice confers activity-dependent regulation of memory and anxiety-like behavior." *Nature neuroscience* vol. 25,5 (2022): 630-645.

Li, Ya-Dong et al. "Activation of hypothalamic-enhanced adult-born neurons restores cognitive and affective function in Alzheimer's disease." *Cell stem cell* vol. 30,4 (2023): 415-432.e6.

Li, Chenchen et al. "Phloretin decreases microglia-mediated synaptic engulfment to prevent chronic mild stress-induced depression-like behaviors in the mPFC." *Theranostics* vol. 13,3 955-972. 16 Jan. 2023.

Shang, Wei et al. "A non-image-forming visual circuit mediates the innate fear of heights in male mice." *Nature communications* vol. 15,1 3746. 3 May. 2024.

Ma, Hui et al. "Sigma-1 receptor activation mediates the sustained antidepressant effect of ketamine in mice via increasing BDNF levels." *Acta pharmacologica Sinica* vol. 45,4 (2024): 704-713.

Exercise

Liu, Kuncheng et al. "The Dynamics of Dopamine D₂ Receptor-Expressing Striatal Neurons and the Downstream Circuit Underlying L-Dopa-Induced Dyskinesia in Rats." *Neuroscience bulletin* vol. 39,9 (2023): 1411-1425.

Qi, Shuo et al. "Temporally interfering electric fields brain stimulation in primary motor cortex of mice promotes motor skill through enhancing neuroplasticity." *Brain stimulation* vol. 17,2 (2024): 245-257.

neurodegenerative disease

Li, Ya-Dong et al. "Activation of hypothalamic-enhanced adult-born neurons restores cognitive and affective function in Alzheimer's disease." *Cell stem cell* vol. 30,4 (2023): 415-432.e6.

Mitra, Ritoban et al. "Neuromelanin: Its role in the pathogenesis of idiopathic Parkinson's disease and potential as a therapeutic target." *Parkinsonism & related disorders* vol. 112 (2023): 105448.

Pain and Motivation

Lu, Jinghao et al. "Somatosensory cortical signature of facial nociception and vibrotactile touch-induced

analgesia." *Science advances* vol. 8,46 (2022): eabn6530.

Converging inputs compete at the lateral parabrachial nuclei to dictate the affective-motivational responses to cold pain. bioRxiv preprint doi: <https://doi.org/10.1101/2024.03.25.586591>;

Chen, Bin et al. "Reverse-engineering placebo analgesia." *Current biology : CB* vol. 34,18 (2024): 4261-4271.e5.

Walle, Roman et al. "Nucleus accumbens D1- and D2-expressing neurons control the balance between feeding and activity-mediated energy expenditure." *Nature communications* vol. 15,1 2543. 21 Mar. 2024.

An Intra-brainstem Circuit for Pain-induced Inhibition of Itch. bioRxiv preprint doi: <https://doi.org/10.1101/2024.07.02.601724>

Psychiatric disorders

Ni, Tong et al. "Medial prefrontal cortex Notch1 signalling mediates methamphetamine-induced psychosis via Hes1-dependent suppression of GABA_{B1} receptor expression." *Molecular psychiatry* vol. 27,10 (2022): 4009-4022.

Schnapp, Wesley Ilana et al. "Development of activity-based anorexia requires PKC- δ neurons in two central extended amygdala nuclei." *Cell reports* vol. 43,3 (2024): 113933.

Suppression of epileptic seizures by transcranial activation of K⁺-selective channelrhodopsin. bioRxiv preprint doi: <https://doi.org/10.1101/2024.01.03.573747>;

Obesity

Feng, Bing et al. "Asprosin promotes feeding through SK channel-dependent activation of AgRP neurons." *Science advances* vol. 9,8 (2023): eabq6718.

Tang, Mengyang et al. "GPSM1 in POMC neurons impairs brown adipose tissue thermogenesis and provokes diet-induced obesity." *Molecular metabolism* vol. 79 (2024): 101839.

Aggression and Defensive Behavior

Wang, Fan et al. "A parabrachial to hypothalamic pathway mediates defensive behavior." *eLife* vol. 12 e85450. 17 Mar. 2023.

Zhang, Ludi et al. "Dopaminergic dominance in the ventral medial hypothalamus: A pivotal regulator for methamphetamine-induced pathological aggression." *Progress in neuro-psychopharmacology & biological psychiatry* vol. 132 (2024): 110971.

Viellard, Juliette M A et al. "A subiculum-hypothalamic pathway functions in dynamic threat detection and memory updating." *Current biology : CB* vol. 34,12 (2024): 2657-2671.e7.

Brain stimulation

Qi, Shuo et al. "Temporally interfering electric fields brain stimulation in primary motor cortex of mice promotes motor skill through enhancing neuroplasticity." *Brain stimulation* vol. 17,2 (2024): 245-257.

Hou, Jason F et al. "An implantable piezoelectric ultrasound stimulator (ImPULS) for deep brain activation." *Nature communications* vol. 15,1 4601. 4 Jun. 2024.

Suppression of epileptic seizures by transcranial activation of K⁺-selective channelrhodopsin. bioRxiv preprint doi: <https://doi.org/10.1101/2024.01.03.573747>;

Others

Wait, Sarah J et al. "Machine learning-guided engineering of genetically encoded fluorescent calcium indicators." *Nature computational science* vol. 4,3 (2024): 224-236.

Mishra, Ila et al. "The cerebellum modulates thirst." *Nature neuroscience* vol. 27,9 (2024): 1745-1757.

Jia, Lei et al. "Activation of Ventral Tegmental Area Dopaminergic Neurons Projecting to the Parabrachial Nucleus Promotes Emergence from Propofol Anesthesia in Male Rats." *Neurochemical research* vol. 49,8 (2024): 2060-2074.

