Selected Publications Using RWD Laser Speckle

Latest update time: Nov. 23th, 2023

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

Research topics:

Cerebral ischemia & Ischemic stroke

- Tedeschi A, Larson M J E, Zouridakis A, et al. Harnessing cortical plasticity via gabapentinoid administration promotes recovery after stroke[J]. ***Brain***, 2022, 145(7): 2378-2393.
- Song Z, Fang J, Wang Z, et al. Rod-Shaped Polymeric Nanoparticles Intervene Neutrophils for Efficient Ischemic Stroke Therapy[J]. ***Advanced Functional Materials***, 2023: 2212326.
- Wang H, Liu Y, Guo Z, et al. Enhancement of oligodendrocyte autophagy alleviates white matter injury and cognitive impairment induced by chronic cerebral hypoperfusion in rats[J]. ***Acta Pharmaceutica Sinica B***, 2023.
- Li D, Liu S, Yu T, et al. Photostimulation of brain lymphatics in male newborn and adult rodents f or therapy of intraventricular hemorrhage[J]. ***Nature Communications***, 2023, 14(1): 6104.
- Zhao Y, Zhu W, Wan T, et al. Vascular endothelium deploys caveolin-1 to regulate oligodendrogenesis after chronic cerebral ischemia in mice[J].***Nature Communications***,2022,13(1): 6813.
- Li T, Zhao L, Li Y, et al. PPM1K mediates metabolic disorder of branched-chain amino acid and regulates cerebral ischemia-reperfusion injury by activating ferroptosis in neurons[J]. ***Cell Death & Disease***, 2023, 14(9): 634.
- Haroon K, Ruan H, Zheng H, et al. Bio-clickable, small extracellular vesicles-COCKTAIL therapy for ischemic stroke[J]. ***Journal of Controlled Release***, 2023, 363: 585-596.
- Menozzi L, Del Águila Á, Vu T, et al. Three-dimensional non-invasive brain imaging of ischemic stroke by integrated photoacoustic, ultrasound and angiographic tomography (PAUSAT)[J].

Photoacoustics, 2023, 29: 100444.

- Liu Y, Che X, Yu X, et al. Phosphorylation of STAT3 at Tyr705 contributes to TFEB-mediated autophagy-lysosomal pathway dysfunction and leads to ischemic injury in rats[J]. ***Cellular and Molecular Life Sciences***, 2023, 80(6): 160.
- Wan T, Zhu W, Zhao Y, et al. Astrocytic phagocytosis contributes to demyelination after focal cortical ischemia in mice[J].***Nature Communications***, 2022, 13(1): 1134.
- Xu K , Gao X , Xia G ,et al.Rapid gut dysbiosis induced by stroke exacerbates brain infarction in turn[J].***Gut***, 2021, 70(8):gutjnl-2020-323263.DOI:10.1136/gutjnl-2020-323263.
- Yu W, Yin N, Yang Y, et al. Rescuing ischemic stroke by biomimetic nanovesicles through accelerated thrombolysis and sequential ischemia-reperfusion protection[J]. ***Acta Biomaterialia***, 2022, 140: 625-640.
- Liu M, Zhou X, Li Y, et al. TIGAR alleviates oxidative stress in brain with extended ischemia via a pentose phosphate pathway-independent manner[J]. ***Redox Biology,*** 2022, 53: 102323.
- Yu Y, Xia Q, Zhan G, et al. TRIM67 alleviates cerebral ischemia–reperfusion injury by protecting neurons and inhibiting neuroinflammation via targeting IκBα for K63-linked polyubiquitination[J]. ***Cell & Bioscience***, 2023, 13(1): 99.
- Zaidi S K, Hoda M N, Tabrez S, et al. Pharmacological Inhibition of Class III Alcohol Dehydrogenase 5: Turning Remote Ischemic Conditioning Effective in a Diabetic Stroke Model[J]. ***Antioxidants***, 2022, 11(10): 2051.
- Wang L, Tu W, Li X, et al. Exercise improves cardiac function and attenuates myocardial inflammation and apoptosis by regulating APJ/STAT3 in mice with stroke[J]. ***Life Sciences***, 2023, 332: 122041.
- Liu J, Zhang X, Xu Y, et al. Regulation of Microglial Activation by Wnt/β-Catenin Signaling After Global Cerebral Ischemia in Mice[J]. ***Molecular Neurobiology***, 2023: 1-18.
- Zhang Y, Ya D, Yang J, et al. EAAT3 impedes oligodendrocyte remyelination in chronic cerebral hypoperfusion-induced white matter injury[J]. ***CNS Neuroscience & Therapeutics***, 2023.
- Wang K, Zhou W, Jin X, et al. Enhanced brain delivery of hypoxia-sensitive liposomes by hydroxyurea for rescue therapy of hyperacute ischemic stroke[J]. ***Nanoscale***, 2023, 15(27): 11625-11646.
- He Y, Li Z, Shi X, et al. Metformin attenuates white matter injury and cognitive impairment induced by chronic cerebral hypoperfusion[J]. ***Journal of Cerebral Blood Flow & Metabolism***, 2023: 0271678X231175189.
- Wei H, Jiang H, Zhou Y, et al. Cerebral venous congestion alters brain metabolite profiles, impairing cognitive function[J]. ***Journal of Cerebral Blood Flow & Metabolism***, 2023: 0271678X231182244.
- Guan Y, Gu Y, Shao H, et al. Intermittent hypoxia protects against hypoxic-ischemic brain damage by inducing functional angiogenesis[J]. ***Journal of Cerebral Blood Flow & Metabolism,*** 2023, 43(10): 1656-1671.
- Xia Q, Mao M, Zhan G, et al. SENP3-mediated deSUMOylation of c-Jun facilitates microglia-induced neuroinflammation after cerebral ischemia and reperfusion injury[J]. ***Iscience***, 2023, 26(6).

- Liu S, Zhang Z, He Y, et al. Inhibiting leukocyte-endothelial cell interactions by Chinese medicine Tongxinluo capsule alleviates no-reflow after arterial recanalization in ischemic stroke[J]. ***CNS Neuroscience & Therapeutics***, 2023.
- Hu H, Wu S, Lee T J, et al. A novel specific aptamer targets cerebrovascular endothelial cells after ischemic stroke[J]. ***Scientific Reports***, 2023, 13(1): 9990.
- Wang X, Zhang S, Lv B, et al. Circular RNA PTP4A2 regulates microglial polarization through STAT3 to promote neuroinflammation in ischemic stroke[J]. ***CNS Neuroscience & Therapeutics***, 2023.
- Zhou Z, Ma Y, Xu T, et al. Deeper cerebral hypoperfusion leads to spatial cognitive impairment in mice[J].***Stroke and Vascular Neurology***, 2022, 7(6).
- Lu Y, Zhou W, Cui Q, et al. G Protein-Coupled Receptor 40 Agonist LY2922470 Alleviates Ischemic-Stroke-Induced Acute Brain Injury and Functional Alterations in Mice[J]. ***International Journal of Molecular Sciences***, 2023, 24(15): 12244.
- Yang D, Su L, Li X, et al. Evidence that enolase-phosphatase 1 exacerbates early cerebral ischemia injury and blood–brain barrier breakdown by enhancing extracellular matrix destruction and inhibiting the interaction between ADI1 and MT1-MMP[J]. ***Experimental Neurology***, 2023, 365: 114410.
- Li D, He T, Zhang Y, et al. Melatonin regulates microglial polarization and protects against ischemic stroke-induced brain injury in mice[J]. ***Experimental Neurology***, 2023: 114464.
- Liu J, Sun J, Song Y, et al. Prussian Blue Nanozyme Treatment of Ischemic Brain Injury via Reducing Oxidative Stress Inhibits Inflammation, Suppresses Apoptosis, and Promotes Neurological Recovery[J]. ***ACS Chemical Neuroscience***, 2023, 14(8): 1535-1546.
- Zhang H, Wang L, Zhu B, et al. A comparative study of the neuroprotective effects of dl-3-n-butylphthalide and edaravone dexborneol on cerebral ischemic stroke rats[J]. ***European Journal of Pharmacology***, 2023, 951: 175801.
- Jia Q Y, Chen H L, Qi Z, et al. Network pharmacology to explore the mechanism of scutellarin in the treatment of brain ischaemia and experimental verification of JAK2/STAT3 signalling pathway[J]. ***Scientific Reports***, 2023, 13(1): 1-11.
- Zang R, Ling F, Wu Z, et al. Ginkgo biloba extract (EGb-761) confers neuroprotection against ischemic stroke by augmenting autophagic/lysosomal signaling pathway[J]. ***Journal of Neuroimmunology***, 2023: 578101.
- Dong W, Gong T, Zhao S, et al. A Novel Extract From Ginkgo biloba Inhibits Neuroinflammation and Maintains White Matter Integrity in Experimental Stroke[J]. ***Neuroscience***, 2023, 523: 7-19.
- Gao Y, Zhang Z, Qi D, et al. Ischemic Stroke Shifts the Protein and Metabolite Profiles of Colon in Mice[J]. ***Neuroscience***, 2023, 526: 237-245.
- Zhang Z, Guo Z, Jin P, et al. Transcriptome profiling of hippocampus after cerebral hypoperfusion in mice[J]. ***Journal of Molecular Neuroscience***, 2023: 1-14.
- Dong F, Yan W, Meng Q, et al. Ebselen alleviates white matter lesions and improves cognitive deficits by attenuating oxidative stress via Keap1/Nrf2 pathway in chronic cerebral hypoperfusion mice[J]. ***Behavioural Brain Research***, 2023, 448: 114444.
- Shen G, Lou C, Li Q, et al. Edaravone dexborneol alleviates cerebral ischemia-reperfusion injury

through NF-κB/NLRP3 signal pathway[J]. **The Anatomical Record**, 2023.

- Zhang T, Zhang Z, Geng J, et al. A New Approach for Exploring Reperfusion Brain Damage in Hypoxic Ischemic Encephalopathy[J]. ***Molecular Neurobiology***, 2023: 1-16.
- Guan X, Wei D, Liang Z, et al. FDCA Attenuates Neuroinflammation and Brain Injury after Cerebral Ischemic Stroke[J]. ***ACS Chemical Neuroscience***, 2023, 14(20): 3839-3854.
- Zou H, Chen X, Lu J, et al. Neurotropin alleviates cognitive impairment by inhibiting TLR4/MyD88/NF-κB inflammation signaling pathway in mice with vascular dementia[J]. ***Neurochemistry International***, 2023, 171: 105625.
- Zhang Y, Mu Y, Ding H, et al. 1α, 25-Dihydroxyvitamin D3 promotes angiogenesis after cerebral ischemia injury in rats by upregulating the TGF-β/Smad2/3 signaling pathway[J]. ***Frontiers in Cardiovascular Medicine***, 2022, 9.
- Li X, Li H, Xu Z, et al. Ischemia-induced cleavage of OPA1 at S1 site aggravates mitochondrial fragmentation and reperfusion injury in neurons[J]. ***Cell Death & Disease***, 2022, 13(4): 321.
- Xu B, Xu J, Cai N, et al. Roflumilast prevents ischemic stroke-induced neuronal damage by restricting GSK3β-mediated oxidative stress and IRE1α/TRAF2/JNK pathway[J]. ***Free Radical Biology and Medicine,*** 2021, 163: 281-296.
- Wang X S, Yue J, Hu L N, et al. Activation of G protein-coupled receptor 30 protects neurons by regulating autophagy in astrocytes[J]. ***Glia***, 2020, 68(1): 27-43.
- Guo X, Tian Y, Yang Y, et al. Pituitary adenylate cyclase-activating polypeptide protects against cognitive impairment caused by chronic cerebral hypoperfusion[J]. ***Molecular Neurobiology,*** 2021, 58(9): 4309-4322.
- Wu Y, Zeng J, Pluimer B, et al. Microvascular Injury in Mild Traumatic Brain Injury Accelerates Alzheimer-like Pathogenesis in Mice[J]. ***bioRxiv***, 2020: 2020.04. 12.036392.
- Wang S, Lv W, Zhang H, et al. Aging exacerbates impairments of cerebral blood flow autoregulation and cognition in diabetic rats[J]. ***Geroscience***, 2020, 42: 1387-1410.
- Jiang W, Zhang P, Yang P, et al. Phosphoproteome Analysis Identifies a Synaptotagmin-1-Associated Complex Involved in Ischemic Neuron Injury[J]. ***Molecular & Cellular Proteomics***, 2022, 21(5).
- Xie C, Yue S, Li X, et al. A Linarin Derivative Protects against Ischemia-Induced Neuronal Injury in Mice by Promoting Cerebral Blood Flow Recovery via KDELR-Dependent CSPG4 Activation[J]. ***Oxidative Medicine and Cellular Longevity***, 2022
- Zhou C, Zhu T, Ni W, et al. Gain-of-function of progesterone receptor membrane component 2 ameliorates ischemic brain injury[J]. ***CNS Neuroscience & Therapeutics***, 2023.
- Yin X, Wang J, Yang S, et al. Sam50 exerts neuroprotection by maintaining the mitochondrial structure during experimental cerebral ischemia/reperfusion injury in rats[J]. ***CNS Neuroscience & Therapeutics***, 2022, 28(12): 2230-2244.
- Li Z, Zhang Y, Meng X, et al. A novel DPP-4 inhibitor Gramcyclin A attenuates cognitive deficits in APP/PS1/tau triple transgenic mice via enhancing brain GLP-1-dependent glucose uptake[J]. ***Phytotherapy Research***, 2022, 36(3): 1297-1309.
- Fan L, Chen Y, Liao R, et al. Antagonism of histamine H3 receptor promotes angiogenesis

following focal cerebral ischemia[J].*Acta Pharmacologica Sinica*, 2022, 43(11): 2807-2816.

- Li X, Li R, Lu L, et al. Beneficial effects of neuronal ATF6 activation in permanent ischemic stroke[J]. *Frontiers in Cellular Neuroscience*, 2022, 16: 1016391-1016391.
- Duan W, Sun Q, Wu X, et al. Cervical Vagus Nerve Stimulation Improves Neurologic Outcome After Cardiac Arrest in Mice by Attenuating Oxidative Stress and Excessive Autophagy[J]. Neuromodulation: *Technology at the Neural Interface,* 2022, 25(3): 414-423.
- Gu C, Liu J, Li Y, et al. Comparison of ketamine/xylazine and isoflurane anesthesia on the establishment of mouse middle cerebral artery occlusion model[J]. *Experimental animals*, 2023, 72(2): 209-217..
- Zhang Z, Guo Z, Tu Z, et al. Cortex-specific transcriptome profiling reveals upregulation of interferon-regulated genes after deeper cerebral hypoperfusion in mice[J]. *Frontiers in Physiology*, 2023, 14: 375.
- Xing Y, Zhang A, Li C, et al. Corticostriatal Projections Relying on GABA Levels Mediate Exercise-Induced Functional Recovery in Cerebral Ischemic Mice[J]. *Molecular Neurobiology*, 2023, 60(4): 1836-1853.
- Liu Z, Wang Z, Zhu Z, et al. Crocetin Regulates Functions of Neural Stem Cells to Generate New Neurons for Cerebral Ischemia Recovery[J]. *Advanced Healthcare Materials*, 2023: 2203132.
- Fan Y Y, Li Y, Tian X Y, et al. Delayed Chronic Acidic Postconditioning Improves Poststroke Motor Functional Recovery and Brain Tissue Repair by Activating Proton-Sensing TDAG8[J]. *Translational Stroke Research*, 2023: 1-16.
- Yang L, Tao Y, Luo L, et al. Dengzhan Xixin injection derived from a traditional Chinese herb Erigeron breviscapus ameliorates cerebral ischemia/reperfusion injury in rats via modulation of mitophagy and mitochondrial apoptosis[J]. *Journal of Ethnopharmacology*, 2022, 288: 114988.
- Wang W, Li R, Miao W, et al. Development and evaluation of a novel mouse model of asphyxial cardiac arrest revealed severely impaired lymphopoiesis after resuscitation[J]. *Journal of the American Heart Association*, 2021, 10(11): e019142.
- Moreno M, Minjarez C, Vigil J, et al. Differences in hippocampal plasticity and memory outcomes in anterior versus posterior cerebellar stroke[J]. *Neurobiology of disease*, 2022, 168: 105701.
- Dong W, Liu X, Liu W, et al. Dual antiplatelet therapy improves functional recovery and inhibits inflammation after cerebral ischemia/reperfusion injury[J]. *Annals of Translational Medicine,* 2022, 10(6).
- Shi H, Li P, Zhou H, et al. Dynamic cerebral blood flow changes with FOXOs stimulation are involved in neuronal damage associated with high-altitude cerebral edema in mice[J]. *Brain Research*, 2022, 1790: 147987.
- Fu X, Zhang T, Lin W, et al. Establishment of a hypoxia ischemia reperfusion brain damage model in neonatal rats[J]. *bioRxiv*, 2022: 2022.01. 10.475606.
- Zhao Y, Hong Z, Lin Y, et al. Exercise pretreatment alleviates neuroinflammation and oxidative stress by TFEB-mediated autophagic flux in mice with ischemic stroke[J]. *Experimental Neurology*, 2023, 364: 114380.
- Liu M, Luo L, Fu J, et al. Exercise-induced neuroprotection against cerebral

ischemia/reperfusion injury is mediated via alleviating inflammasome-induced pyroptosis[J]. *Experimental Neurology*, 2022, 349: 113952.

- Hayashida K, Takegawa R, Endo Y, et al. Exogenous mitochondrial transplantation improves survival and neurological outcomes after resuscitation from cardiac arrest[J]. *BMC medicine*, 2023, 21(1): 56.
- Hu X, Pan J, Li Y, et al. Extracellular vesicles from adipose-derived stem cells promote microglia M2 polarization and neurological recovery in a mouse model of transient middle cerebral artery occlusion[J]. *Stem Cell Research & Therapy*, 2022, 13(1): 21.
- Lin W, Zhang T, Zheng J, et al. Ferroptosis is Involved in Hypoxic-ischemic Brain Damage in Neonatal Rats[J]. *Neuroscience*, 2022, 487: 131-142.
- Wang N Y, Li J N, Liu W L, et al. Ferulic acid ameliorates Alzheimer's disease-like pathology and repairs cognitive decline by preventing capillary hypofunction in APP/PS1 mice[J]. *Neurotherapeutics*, 2021, 18: 1064-1080.
- Dong W, Chen Q, Zhao S, et al. IKKα contributes to ischemia-induced autophagy after acute cerebral ischemic injury[J]. *Annals of Translational Medicine*, 2022, 10(4).
- Meng C, Chen S, He Q, et al. IKZF3 modulates cerebral ischemia/reperfusion injury by inhibiting neuroinflammation[J]. *International Immunopharmacology*, 2023, 114: 109480.
- Luo L, Liu M, Fan Y, et al. Intermittent theta-burst stimulation improves motor function by inhibiting neuronal pyroptosis and regulating microglial polarization via TLR4/NFκB/NLRP3 signaling pathway in cerebral ischemic mice[J]. *Journal of Neuroinflammation*, 2022, 19(1): 1-27.
- Yang Y, Tian Y, Guo X, et al. Ischemia Injury induces mPTP opening by reducing Sirt3[J]. *Neuroscience*, 2021, 468: 68-74.
- Li N, Zhang X, Zhai J, et al. Isoflurane and Netrin-1 combination therapy enhances angiogenesis and neurological recovery by improving the expression of HIF-1α-Netrin-1-UNC5B/VEGF cascade to attenuate cerebral ischemia injury[J]. *Experimental Neurology*, 2022, 352: 114028.
- Yin L, Yu T, Cheng L, et al. Laser speckle contrast imaging for blood flow monitoring in predicting outcomes after cerebral ischemia-reperfusion injury in mice[J]. *BMC neuroscience*, 2022, 23(1): 1-7.
- Li C, Zhou G, Yang M, et al. Laser Speckle Flowmetry for the Prognostic Estimation Study of Permanent Focal Ischemia in Mice[J]. *BioMed Research International*, 2022, 2022.
- Zhou Y, Huang D, Cai Y, et al. lncRNA DHFRL1-4 knockdown attenuates cerebral ischemia/reperfusion injury by upregulating the levels of angiogenesis-related genes[J]. *International Journal of Molecular Medicine*, 2022, 50(2): 1-10.
- Fang X, Tang C, Zhang H, et al. Longitudinal characterization of cerebral hemodynamics in the TgF344-AD rat model of Alzheimer's disease[J]. *GeroScience*, 2023: 1-20.
- Wang F, Wang Q, Wang L, et al. Low-intensity focused ultrasound stimulation ameliorates working memory dysfunctions in vascular dementia rats via improving neuronal environment[J]. *Frontiers in Aging Neuroscience*, 2022, 14.
- Li Y, Liu Z, Song Y, et al. M2 microglia-derived extracellular vesicles promote white matter repair and functional recovery via miR-23a-5p after cerebral ischemia in mice[J]. *Theranostics*, 2022, 12(7): 3553.

- Wang Y, Wang J, Zhang Q, et al. Neural mechanism underlying task-specific enhancement of motor learning by concurrent transcranial direct current stimulation[J]. ***Neuroscience Bulletin***, 2023, 39(1): 69-82.
- Luan P, Xu J, Ding X, et al. Neuroprotective effect of salvianolate on cerebral ischaemia-reperfusion injury in rats by inhibiting the caspase-3 signal pathway[J]. ***European Journal of Pharmacology***, 2020, 872: 172944.
- Pan L, Tang W, Wang K, et al. Novel Caspase-1 inhibitor CZL80 improves neurological function in mice after progressive ischemic stroke within a long therapeutic time-window[J]. ***Acta Pharmacologica Sinica***, 2022, 43(11): 2817-2827.
- Jiao-Yan Y, Qing-Qing L, Xi L, et al. Oxymatrine improves blood-brain barrier integrity after cerebral ischemia-reperfusion injury by downregulating CAV1 and MMP9 expression[J]. ***Phytomedicine***, 2021, 84: 153505.
- Xiao T, Yang L, Chen P, et al. Para-hydroxybenzaldehyde against transient focal cerebral ischemia in rats via mitochondrial preservation[J]. ***Experimental and Therapeutic Medicine***, 2022, 24(6): 1-12.
- Xiao T, Yang L, Chen P, et al. Para-hydroxybenzaldehyde against transient focal cerebral ischemia in rats via mitochondrial preservation[J]. ***Experimental and Therapeutic Medicine***, 2022, 24(6): 1-12.
- Long C, Liu M, Tian H, et al. Potential role of platelet-activating c-type lectin-like proteins in viper envenomation induced thrombotic microangiopathy symptom[J]. ***Toxins***, 2020, 12(12): 749.
- Jin Y, Shi P, Wang Y, et al. Precise control of embolic stroke with magnetized red blood cells in mice[J]. ***Communications Biology***, 2022, 5(1): 136.
- Clemons G A, Silva A C, Acosta C H, et al. Protein arginine methyltransferase 4 modulates nitric oxide synthase uncoupling and cerebral blood flow in Alzheimer's disease[J]. ***Journal of Cellular Physiology***, 2022.
- Guo Y Z, Ma Y M, Zhang X P, et al. Region-specific changes in aquaporin 4 induced by hyperglycemia underlie the differences in cell swelling in the cortex and striatum after cerebral ischemia-reperfusion[J]. ***Neuroscience Letters***, 2021, 754: 135885.
- He Q, Ma Y, Fang C, et al. Remote ischemic conditioning attenuates blood-brain barrier disruption after recombinant tissue plasminogen activator treatment via reducing PDGF-CC[J]. ***Pharmacological Research***, 2023, 187: 106641.
- Zhang T L, Zhang Z W, Lin W, et al. Reperfusion after hypoxia-ischemia exacerbates brain injury with compensatory activation of the anti-ferroptosis system: based on a novel rat model[J]. ***Neural Regeneration Research***, 2023, 18(10): 2229-2236.
- Wang L, Wang Y, Chen Y J, et al. Rhynchophylline ameliorates cerebral ischemia by improving the synaptic plasticity in a middle cerebral artery occlusion induced stroke model[J]. ***European Journal of Pharmacology***, 2023, 940: 175390.
- Song Z, Fang J, Wang Z, et al. Rod-Shaped Polymeric Nanoparticles Intervene Neutrophils for Efficient Ischemic Stroke Therapy[J]. ***Advanced Functional Materials***, 2023: 2212326.
- Cai N, Xu B, Li X, et al. Roflumilast, a cyclic nucleotide phosphodiesterase 4 inhibitor, protects against cerebrovascular endothelial injury following cerebral ischemia/reperfusion by activating

the Notch1/Hes1 pathway[J]. *European journal of pharmacology*, 2022, 926: 175027.

- Tian H, Liu M, Li J, et al. Snake c-type lectins potentially contribute to the prey immobilization in Protobothrops mucrosquamatus and Trimeresurus stejnegeri venoms[J]. *Toxins*, 2020, 12(2): 105.
- Ma Y, Chen Z, He Q, et al. Spatiotemporal lipidomics reveals key features of brain lipid dynamic changes after cerebral ischemia and reperfusion therapy[J]. *Pharmacological Research*, 2022, 185: 106482.
- Zang J, Tang X, Su X, et al. Systematic Analysis of RNA Expression Profiles in Different Ischemic Cortices in MCAO Mice[J]. *Cellular and Molecular Neurobiology*, 2023, 43(2): 859-878.
- Song M M, Chen J, Ye S M, et al. Targeted delivery of edaravone by liposomes for the treatment of ischemic stroke[J]. *Nanomedicine*, 2022, 17(11): 741-752.
- Wang C, Yang X, Jiang Y, et al. Targeted delivery of fat extract by platelet membrane-cloaked nanocarriers for the treatment of ischemic stroke[J]. *Journal of Nanobiotechnology*, 2022, 20(1): 1-20.
- Deng L D, Qi L, Suo Q, et al. Transcranial focused ultrasound stimulation reduces vasogenic edema after middle cerebral artery occlusion in mice[J]. *Neural Regeneration Research*, 2022, 17(9): 2058.
- Liu X, Du Y, Liu J, et al. Ferrostatin-1 alleviates cerebral ischemia/reperfusion injury through activation of the AKT/GSK3β signaling pathway[J]. B*rain Research Bulletin*, 2023, 193: 146-157.
- Li H, Li X, Xu Z, et al. Unbalanced regulation of Sec22b and Ykt6 blocks autophagosome axonal retrograde flux in neuronal ischemia–reperfusion injury[J]. *Journal of Neuroscience*, 2022, 42(28): 5641-5654.

Traumatic Brain Injury（TBI）

- Zhang S, Chen Q, Xian L, et al. Acute subdural haematoma exacerbates cerebral blood flow disorder and promotes the development of intraoperative brain bulge in patients with severe traumatic brain injury[J]. *European Journal of Medical Research*, 2023, 28(1): 138.
- Zheng S, Mu S, Li J, et al. Cerebral venous hemodynamic responses in a mouse model of traumatic brain injury[J]. *Brain Research*, 2022, 1792: 148014.
- Bragin D E, Bragina O A, Trofimov A O, et al. Involvement of Endothelial Nitric Oxide Synthase in Cerebral Microcirculation and Oxygenation in Traumatic Brain Injury[M]//Oxygen Transport to Tissue XLIII. Cham: Springer International Publishing, 2022: 3-7.
- Wu Y, Wu H, Zeng J, et al. Mild traumatic brain injury induces microvascular injury and accelerates Alzheimer-like pathogenesis in mice[J]. *Acta neuropathologica communications*, 2021, 9(1): 1-14.
- Zaidi S K, Ahmed F, Alkhatabi H, et al. Nebulization of Low-Dose S-Nitrosoglutathione in Diabetic Stroke Enhances Benefits of Reperfusion and Prevents Post-Thrombolysis Hemorrhage[J]. *Biomolecules*, 2021, 11(11): 1587.

Angiogenesis

- Wu Y, Tang X, Lee S, et al. Endothelial PPARδ facilitates the post-ischemic vascular repair through interaction with HIF1α[J]. ***Theranostics***, 2022, 12(4): 1855.
- Wu Y, Lin X, Hong H, et al. Endothelium-targeted delivery of PPARδ by adeno-associated virus serotype 1 ameliorates vascular injury induced by hindlimb ischemia in obese mice[J]. ***Biomedicine & Pharmacotherapy***, 2022, 151: 113172.

Wound healing

- Yuan Q, Zhao B, Cao Y, et al. BCR-Associated Protein 31 Regulates Macrophages Polarization and Wound Healing Function via Early Growth Response 2/C/EBPβ and IL-4Rα/C/EBPβ Pathways[J]. ***The Journal of Immunology***, 2022, 209(6): 1059-1070.
- Lei H, Fan D. A Combination Therapy Using Electrical Stimulation and Adaptive, Conductive Hydrogels Loaded with Self-Assembled Nanogels Incorporating Short Interfering RNA Promotes the Repair of Diabetic Chronic Wounds[J]. ***Advanced Science***, 2022, 9(30): 2201425.

Flap survival

- Fang F, Liu M, Xiao J, et al. Arterial supercharging is more beneficial to flap survival due to quadruple dilation of venules[J]. ***Journal of Surgical Research***, 2020, 247: 490-498.
- Wang H, Fang F, Chen S, et al. Dual efficacy of Fasudil at improvement of survival and reinnervation of flap through RhoA/ROCK/PI3K/Akt pathway[J]. ***International Wound Journal,*** 2022, 19(8): 2000-2011.
- Liu D, Fang F, Zhuang Y. Impact of Diameter of Perforator in Pedicle and Different Managements of Intermediate Non-Pedicle Perforator on Flap Survival in Rats[J]. ***Journal of Investigative Surgery***, 2022, 35(9): 1686-1693.
- Tang X , Ren J , Wei X ,et al.Exploiting synergistic effect of CO/NO gases for soft tissue transplantation using a hydrogel patch[J].***Nature Communications***, 2023, 14(1).DOI:10.1038/s41467-023-37959-y.

Thrombosis

- Shen C, Liu M, Xu R, et al. The 14-3-3ζ–c-Src–integrin-β3 complex is vital for platelet activation[J]. ***Blood***, 2020, 136(8): 974-988.
- Song J, Kang X, Wang L, et al. Near-infrared-II photoacoustic imaging and photo-triggered synergistic treatment of thrombosis via fibrin-specific homopolymer nanoparticles[J]. ***Nature Communications***, 2023, 14(1): 6881.
- Wei X, Zhang B, Wei F, et al. Gegen Qinlian pills alleviate carrageenan-induced thrombosis in mice model by regulating the HMGB1/NF-κB/NLRP3 signaling[J]. ***Phytomedicine***, 2022, 100: 154083.
- Huang M, Zhu Y, Xin G, et al. Multi-enzyme mimetic iridium nanozymes-based thrombus

microenvironment-modulated nanoplatform for enhanced thrombolytic therapy[J]. ***Chemical Engineering Journal***, 2023: 144156.

Limb ischemia

- Wang C L, Wang Y, Jiang Q L, et al. DNase I and Sivelestat Ameliorate Experimental Hindlimb Ischemia-Reperfusion Injury by Eliminating Neutrophil Extracellular Traps[J]. ***Journal of Inflammation Research***, 2023: 707-721.
- Pan Y, Lin T, Shao L, et al. Lignin/Puerarin Nanoparticle-Incorporated Hydrogel Improves Angiogenesis through Puerarin-Induced Autophagy Activation[J]. ***International Journal of Nanomedicine***, 2023: 5095-5117.
- Xu J, Xu X, Ling Y, et al. Vincamine as an agonist of G-protein-coupled receptor 40 effectively ameliorates diabetic peripheral neuropathy in mice[J]. ***Acta Pharmacologica Sinica***, 2023: 1-16.
- Wong C W T, Sawhney A, Wu Y, et al. Sourcing of human peripheral blood-derived myeloid angiogenic cells under xeno-free conditions for the treatment of critical limb ischemia[J]. ***Stem Cell Research & Therapy***, 2022, 13(1): 1-19.
- Yang Y, Li Y, Pan Q, et al. Tibial cortex transverse transport accelerates wound healing via enhanced angiogenesis and immunomodulation[J]. ***Bone & Joint Research***, 2022, 11(4): 189-199.
- Wang C L, Wang Y, Jiang Q L, et al. DNase I and Sivelestat Ameliorate Experimental Hindlimb Ischemia-Reperfusion Injury by Eliminating Neutrophil Extracellular Traps[J]. ***Journal of Inflammation Research***, 2023: 707-721.

Diabetes

- Xu J, Xu X, Ling Y, et al. Vincamine as an agonist of G-protein-coupled receptor 40 effectively ameliorates diabetic peripheral neuropathy in mice[J]. ***Acta Pharmacologica Sinica***, 2023: 1-16.
- Zhan M, Liu X, Xia X, et al. Promotion of neuroinflammation by the glymphatic system: a new insight into ethanol extracts from Alisma orientale in alleviating obesity-associated cognitive impairment[J]. ***Phytomedicine***, 2024, 122: 155147.
- Martín-Aragón Baudel M, Flores-Tamez V A, Hong J, et al. Spatiotemporal control of vascular Cav1. 2 by α1c S1928 phosphorylation[J]. ***Circulation Research***, 2022, 131(12): 1018-1033.
- Xu X, Wang W, Wang Z, et al. DW14006 as a direct AMPKα activator ameliorates diabetic peripheral neuropathy in mice[J]. ***Diabetes***, 2020, 69(9): 1974-1988.
- Zhu X, Chen Y, Xu X, et al. SP6616 as a Kv2. 1 inhibitor efficiently ameliorates peripheral neuropathy in diabetic mice[J]. ***EBioMedicine***, 2020, 61: 103061.
- Yang J, Wei Y, Zhao T, et al. Magnolol effectively ameliorates diabetic peripheral neuropathy in mice[J]. *Phytomedicine*, 2022, 107: 154434.
- Lei H, Fan D. A Combination Therapy Using Electrical Stimulation and Adaptive, Conductive Hydrogels Loaded with Self-Assembled Nanogels Incorporating Short Interfering RNA Promotes the Repair of Diabetic Chronic Wounds[J]. ***Advanced Science***, 2022, 9(30): 2201425.

- Tian Y Q, Li J H, Li Y C, et al. Overexpression of GRK6 alleviates chronic visceral hypersensitivity through downregulation of P2Y6 receptors in anterior cingulate cortex of rats with prenatal maternal stress[J]. ***CNS Neuroscience & Therapeutics***, 2022, 28(6): 851-861.
- Wang S, Lv W, Zhang H, et al. Aging exacerbates impairments of cerebral blood flow autoregulation and cognition in diabetic rats[J]. ***Geroscience***, 2020, 42: 1387-1410.

Alzheimer's disease

- Wang N Y, Li J N, Liu W L, et al. Ferulic acid ameliorates Alzheimer's disease-like pathology and repairs cognitive decline by preventing capillary hypofunction in APP/PS1 mice[J]. ***Neurotherapeutics***, 2021, 18: 1064-1080.
- Fang X, Tang C, Zhang H, et al. Longitudinal characterization of cerebral hemodynamics in the TgF344-AD rat model of Alzheimer's disease[J]. ***GeroScience***, 2023: 1-20.
- Zhu J, Ji X, Shi R, et al. Hyperglycemia Aggravates the Cerebral Ischemia Injury via Protein O-GlcNAcylation[J]. ***Journal of Alzheimer's Disease***, 2023 (Preprint): 1-18.
- Wu Y, Zeng J, Pluimer B, et al. Microvascular Injury in Mild Traumatic Brain Injury Accelerates Alzheimer-like Pathogenesis in Mice[J]. *bioRxiv*, 2020: 2020.04. 12.036392.
- Wu Y, Wu H, Zeng J, et al. Mild traumatic brain injury induces microvascular injury and accelerates Alzheimer-like pathogenesis in mice[J]. ***Acta neuropathologica communications***, 2021, 9(1): 1-14.
- Clemons G A, Silva A C, Acosta C H, et al. Protein arginine methyltransferase 4 modulates nitric oxide synthase uncoupling and cerebral blood flow in Alzheimer's disease[J]. ***Journal of Cellular Physiology***, 2022.

Arterial sympathectomy

- Xie Y, Fang F, Lin P, et al. Segmental branches emanating from saphenous nerve morphing into sympathetic trunks for innervation of saphenous artery and its clinical implication for arterial sympathectomy[J]. ***International Wound Journal***, 2022, 19(2): 294-304.
- Zaidi S K, Hoda M N, Tabrez S, et al. Pharmacological Inhibition of Class III Alcohol Dehydrogenase 5: Turning Remote Ischemic Conditioning Effective in a Diabetic Stroke Model[J]. ***Antioxidants***, 2022, 11(10): 2051.

Atherosclerosis

- Chu Y, Wang M, Wang X, et al. Identifying quality markers of Mailuoshutong pill against thromboangiitis obliterans based on chinmedomics strategy[J]. ***Phytomedicine***, 2022, 104: 154313.
- Wang X, Wang M, Chu Y, et al. Integrated pharmacokinetics and pharmacometabolomics to reveal the synergistic mechanism of a multicomponent Chinese patent medicine, Mailuo Shutong pills against thromboangiitis obliterans[J]. ***Phytomedicine***, 2023, 112: 154709.

Endothelial function

- Ho Y J, Hsu H C, Wu B H, et al. Preventing ischemia-reperfusion injury by acousto-mechanical local oxygen delivery[J]. ***Journal of Controlled Release***, 2023, 356: 481-492.
- 李帅，邓冬，谢抗，等. 高蛋氨酸饮食诱导内皮功能障碍致多器官血流灌注减少小鼠模型评价[J]. ***中国中西医结合杂志***, 43(5): 597-604.

Irritable bowel syndrome (IBS)

- Liu S, Huang Q, Huang Q, et al. The protective effects of electroacupuncture on intestinal barrier lesions in IBS and UC model[J]. ***Scientific Reports***, 2023, 13(1): 7276.
- Hu C, Yan C, Wu Y, et al. Low FODMAP Diet Relieves Visceral Hypersensitivity and Is Associated with Changes in Colonic Microcirculation in Water Avoidance Mice Model[J]. ***Nutrients***, 2023, 15(5): 1155.
- Tian Y Q, Li J H, Li Y C, et al. Overexpression of GRK6 alleviates chronic visceral hypersensitivity through downregulation of P2Y6 receptors in anterior cingulate cortex of rats with prenatal maternal stress[J]. ***CNS Neuroscience & Therapeutics***, 2022, 28(6): 851-861.

Sepsis

- Sun Y, Ye F, Li D, et al. Fibroblast growth factor 2 (FGF2) ameliorates the coagulation abnormalities in sepsis[J]. ***Toxicology and Applied Pharmacology***, 2023: 116364.

Vasospasm

- Ma Q, Liu D, Gong R, et al. Mechanically induced vasospasm-evaluation of spasmolytic efficacy of 10 pharmaceutical agents using laser speckle contrast imaging[J]. ***Lasers in Surgery and Medicine***, 2021, 53(5): 684-694.

Hernia surgery

- Fehér D. Szövetpótlásra alkalmas poli (vinil alkohol) sérvháló in vitro és in vivo biokompatibilitási vizsgálatai[D]. , 2021.

Intestinal ischemia reperfusion & Intestinal inflammation

- Cong R, Sun L, Yang J, et al. Protein O-GlcNAcylation alleviates small intestinal injury induced by ischemia-reperfusion and oxygen-glucose deprivation[J]. ***Biomedicine & Pharmacotherapy***, 2021, 138: 111477.
- Zhang J, Yang M, Tang X, et al. Intestinal delivery of ROS-scavenging carbonized polymer dots for full-course treatment of acute and chronic radiation enteritis[J]. ***Applied Materials Today***, 2022, 28: 101544.
- Chu C, Wang X, Yang C, et al. Neutrophil extracellular traps drive intestinal microvascular endothelial ferroptosis by impairing Fundc1-dependent mitophagy[J]. ***Redox Biology***, 2023, 67:

102906.

- Song H, Xiong M, Yu C, et al. Huang-Qi-Jian-Zhong-Tang accelerates healing of indomethacin-induced gastric ulceration in rats via anti-inflammatory and antioxidant mechanisms[J]. ***Journal of Ethnopharmacology***, 2024, 319: 117264.

Tumor

- Wang S, Zhang J, Liu H, et al. The effect of blood velocity in solid tumor on intratumorally accumulation and penetration of nanocarriers and drugs[J]. ***Nano Today***, 2023, 50: 101870.

Acute pancreatitis

- Chai J, Wu J, Li J, et al. Novel Amphibian Bowman–Birk-Like Inhibitor with Antioxidant and Anticoagulant Effects Ameliorates Pancreatitis Symptoms in Mice[J]. ***Journal of Medicinal Chemistry***, 2023, 66(17): 11869-11880.

Pulmonary Fibrosis

- Liu Q, Bi Y, Song S, et al. Exosomal miR-17-5p from human embryonic stem cells prevents pulmonary fibrosis by targeting thrombospondin-2[J]. ***Stem Cell Research & Therapy***, 2023, 14(1): 234.