

一、论文

Anna Wang Roe

1. Zhu L, Wang M, Liu Y, Zhang W, Zhang H, **Anna W***, Xi W* (2022) Precision 1070 nm Ultrafast Laser-Induced Photothrombosis of Depth-Targeted Vessels In Vivo. *Small Methods*. (IF=15.367)
2. Milham ...**Roe AW**...et al (2022) The PRIMatE Data and Resource Exchange (PRIME-DRE) Global Collaboration Workshop and Consortium “Towards next generation primate neuroscience: a collaboration-based strategic plan for integrative neuroimaging”. *Neuron*. (IF=15.33)
3. Zhang H‡, Fu P‡, Liu Y‡, Zheng Z, Zhu L, Wang M, Abdellah M, Qian J*, **Anna W***, and Xi W* (2022) Large-depth three-photon fluorescence microscopy imaging of cortical microvasculature on nonhuman primates with bright AIE probe In vivo. *Biomaterials*. (IF=15.304)
4. Zaraza D*, Chernov MM*, Yang Y, Rogers JA, **Roe AW****, Friedman RM** (2022) Head mounted optical imaging and stimulation system for use in behaving primates. *Cell Reports Methods*, in press. (IF=8.109)
5. Jianbao Wang, Shahin Nasr, **Anna Wang Roe**, Jonathan R. Polimeni (2022) Critical factors in achieving fine-scale functional MRI: Removing sources of inadvertent spatial smoothing. *Human Brain Mapping*. (IF=5.399)
6. Hu JM, **Roe AW*** (2022) Functionally specific and sparse domain-based micro-networks in monkey V1 and V2. *Current Biology*. (IF=10.9)
7. Du X, Jiang X, Kuriki I, Takahata T, Zhou T, **Roe AW***, Tanigawa H* (2022) Representation of Cone-Opponent Color Space in Macaque Early Visual Cortices. *Frontiers in Neuroscience*. (IF=5.512)
8. Xie JJ, Li XY, Chen C, Cheng HR, Wang S, **Roe AW***, Lai HY*, Wu ZY* (2022) Local and Global abnormalities in presymptomatic Huntington’ s disease revealed by 7T resting-state functional MRI. *Neurosci Bull*. (IF=5.2707)
9. Xu G, Zhao Z, Xu K, Zhu J, **Roe AW**, Xu B, Zhang X, Li J*, Xu D* (2022) Magnetic resonance temperature imaging of laser-induced thermotherapy using proton resonance frequency shift: evaluation of different sequences in phantom and porcine brain at 7 T. *Japanese Journal of Radiology*. (IF=2.701)
10. Mir Y*, Zalányi L, Pálfi E, Ashaber M, **Roe AW**, Friedman RM, Négyessy L* (2022) Modular Organization of Signal Transmission in Primate Somatosensory Cortex. *Frontiers in*

Neuroanatomy. (IF=3.543)

白瑞良

1. Chen P, Wang W, Liu R, Lyu J, Zhang L, Li B, Qiu B, Tian A, Jiang W, Ying H, Jing R, Wang Q, Zhu K, **Bai R**, Zeng L, Duan S, Liu C* (2022) Olfactory sensory experience regulates gliomagenesis via neuronal IGF1. *Nature*. (IF=69.504)
2. Jia Y, Xu S, Han G, Wang B, Wang Z, Lan C, Zhao P, Gao M, Zhang Y, W Jiang, Qiu B, Liu R, Hsu Y, Sun Y, Liu C, Liu Y*, **Bai R*** (2022) Transmembrane water-efflux rate measured by magnetic resonance imaging as a biomarker of the expression of aquaporin-4 in gliomas. *Nature Biomedical Engineering*. (IF=29.234)
3. Jia Y, Xu S, Han G, Wang B, Wang Z, Lan W, Zhao P, Gao M, Zhang Y, Jiang W, Qiu B, Liu R, Hsu Y, Sun Y, Liu C, Liu Y*, **Bai R*** (2022) Dynamic-contrast-enhanced magnetic resonance imaging for the detection of water exchange heterogeneity in glioma. *Nature Biomedical Engineering*. (IF = 29.2)
4. Xue S, Cheng Z, Han G, Sun C, Fang K, Liu Y, Cheng J, Jin X, **Bai R*** (2022) 2D Probabilistic Undersampling Pattern Optimization for MR Image Reconstruction. *Medical Image Analysis*. (IF = 13.828)
5. Li Z, Pang Z, Cheng J, Hsu Y, Sun Y, Ozarslan E, **Bai R*** (2022) The Direction-dependence of Apparent Water Exchange Rate in Human White Matter. *NeuroImage*. (IF = 7.400)
6. Hu J, Wang Y, Zhu Y, Li Y, Chen J, Zhang Y, Xu D, **Bai R***, Wang L* (2022) Preoperative Brain Functional Connectivity Predict Outcome After Revascularization in Moyamoya Disease. *Neurosurgery*, Accepted. (IF=5.3)
7. Wu H, Sun C, Huang X, Wei R, Li Z, Ke D, **Bai R***, Liang H (2022) Short-Range Structural Connections Are More Severely Damaged in Early-Stage Multiple Sclerosis. *AJNR*. (IF = 4.966)
8. Wang B, Wang Z, Jia Y, Zhao P, Han G, Meng C, Li X*, **Bai R***, Liu Y* (2022) Water Exchange Detected by Shutter Speed Dynamic Contrast Enhanced-MRI Help Distinguish Solitary Brain Metastasis from Glioblastoma. *European Journal of Radiology*. (IF=4.531)
9. Hu J, Li Y, Tong Y, Li Z, Chen J, Cao Y, Zhang Y, Xu D, Zheng L, **Bai R***, Wang L* (2022) Moyamoya Disease with Initial Ischemic and Hemorrhagic Attack Shows Different Brain Structural and Functional Features: A Pilot Study. *Frontiers in Neurology*. (IF=4.086)
10. Tao J, Li Z*, Liu Y, Li J*, **Bai R*** (2022) Performance Comparison of Different Neuroimaging Methods for Predicting Upper Limb Motor Outcomes in Patients after Stroke. *Neural Plasticity*. (IF=3.144)

11. Hu J, Li Y, Li Z, Chen J, Cao Y, Xu D, Zheng L, **Bai R***, Wang L* (2022) Abnormal Brain Functional and Structural Connectivity Between the Left Supplementary Motor Area and Inferior Frontal Gyrus in Moyamoya Disease. *BMC Neurology*. (IF=2.903)
12. Pang Z1, Wang Z1, Wang B, Guo K, Meng C, Liu Y *, Kong X*, **Bai R*** (2022) Consideration of Transmembrane Water Exchange in Pharmacokinetic Model Significantly Improves the Accuracy of DCE-MRI in Estimating Cellular Density: A Pilot Study in Glioblastoma Multiforme. *Magnetic Resonance Letters*.

陈晓冬

1. Zhao J, Chen W, Liu C, Gao Y, **Chen X**, Chen G, Xia L, Dai Y, Zhang X (2022) Automatic macaque brain segmentation based on 7T MRI. *Magn Reson Imaging*. (IF=3.13)

高利霞

1. Lyu C, Yu C, Sun G, Zhao Y, Cai R, Sun H, Wang X, Jia G, Fan L, Chen X, Zhou L, Shen Y,* **Gao L*** and Li X* (2022) Deconstruction of Vermal Cerebellum in Ramp Locomotion in Mice. *Advance Science*. (IF=17.5)
2. Shuhao Qian, Jia Meng, Zhe Feng, Lingxi Zhou, Shenyi Jiang, Yalun Wang, Zitong Ye, Shuangmu Zhuo, Jianxin Chen, Xinjian Li, **Lixia Gao**, Zhihua Ding, Jun Qian, Zhiyi Liu (2022) Mapping Organizational Changes of Fiber-Like Structures in Disease Progression by Multiparametric. *Quantitative Imaging, Laser & Photonics Reviews*. (IF=10.947)
3. Wang X, Zhang Y, Bai S, Qi R, Sun H, Li R, Zhu L, Cao X, Jia G, Li Xinjian, **Gao L** (2022) Corticofugal modulation of temporal and rate representations in the inferior colliculus of the awake marmoset. *Cereb Cortex*. (IF=4.861)
4. Cao X, Zhu L, Qi R, Wang X, Sun G, Ying Y, Chen R, Li X, and **Gao L*** (2022) Effect of a High Estrogen Level in Early Pregnancy on the Development and Behavior of Marmoset Offspring, *ACS Omega*. (IF=4.1)
5. Wang X, Zhang Y, Zhu L, Bai S, Li R, Sun H, Qi R, Cai R, Li M, Jia G, Cao X, Schriver K, Li X and **Gao L** (2022) Selective corticofugal modulation on sound processing in auditory thalamus of awake marmosets, *Cerebral cortex*. (IF=4.8)
6. Jia Meng, Zhe Feng, Shuhao Qian, Chuncheng Wang, Xinjian Li, **Lixia Gao**, Zhihua Ding, Jun Qian, Zhiyi Liu, Mapping physiological and pathological functions of cortical vasculature through aggregation-induced emission nanoprobe assisted quantitative, in vivo NIR-II imaging, *Biomaterials Advances*.

Hisashi Tanigawa

1. **H. Tanigawa**, K. Majima, R. Takei, K. Kawasaki, H. Sawahata, K. Nakahara, A. Iijima, T. Suzuki, Y. Kamitani, Isao Hasegawa* (2022) Decoding distributed oscillatory signals driven by memory and perception in the prefrontal cortex. *Cell Reports*. (IF=9.995)
2. Du X, Jiang X, Kuriki I, Takahata T, Zhou T, Roe AW*, **Tanigawa H*** (2022) Representation of Cone-Opponent Color Space in Macaque Early Visual Cortices. *Frontiers in Neuroscience*. (IF=5.512)

胡嘉明

1. **Hu JM, Roe AW*** (2022) Functionally specific and sparse domain-based micro-networks in monkey V1 and V2. *Current Biology*. (IF=10.9)

Ken Schriver

1. Wang X, Zhang Y, Zhu L, Bai S, Li R, Sun H, Qi R, Cai R, Li M, Jia G, Cao X, **Schrivier K**, Li X and Gao L (2022) Selective corticofugal modulation on sound processing in auditory thalamus of awake marmosets, *Cerebral cortex*. (IF=4.8)

赖欣怡

1. Shen T, Yue YM, Ba F, He TT, Tang XC, Hu XY, Pu JL, Huang C, Lv W, Zhang BR*, **Lai HY*** (2022) Diffusion along perivascular spaces as marker for impairment of glymphatic system in Parkinson's disease. *npj Parkinson's Disease*. (IF=9.3034)
2. Xu YJ, Zhong F, Zheng XQ, **Lai HY**, Wu CC, Huang C* (2022) Disparity of Gut Microbiota Composition Among Elite Athletes and Young Adults With Different Physical Activity Independent of Dietary Status: A Matching Study. *Front Nutr*. (IF=6.5897)
3. Chen BW#, Yang SH#, Kuo CH, Chen JW, Lo YC, Kuo YT, Lin YC, Chen HC, Lin SH, Yu X, Qu B, Ro V SC, **Lai HY***. Chen YY* (2022) Neuro-inspired reinforcement learning to improve trajectory prediction in reward-guided behavior. *Int J Neural Syst*. (IF=6.3255)
4. Shen T, Pu JL, Jiang YS, Yue YM, He TT, Qu BY, Zhao SA, Yan YP, **Lai HY***, Zhang BR* (2022) Impact of cognitive related single nucleotide polymorphisms on brain phenotype in Parkinson's disease. *Neural Regen Res*. (IF=6.058)
5. Xie JJ, Li XY, Chen C, Cheng HR, Wang S, Roe AW*, **Lai HY***, Wu ZY* (2022) Local and Global abnormalities in presymptomatic Huntington's disease revealed by 7T resting-state

functional MRI. *Neurosci Bull.* (IF=5.2707)

6. Zhong F, Xu YJ, **Lai HY**, Yang M, Cheng L, Sun XM, Yang Y, Wang J, Huang C* (2022) Effects of combined aerobic and resistance training on gut microbiota and cardiovascular risk factors in physically active elderly women: a randomized controlled trial. *Front Physiol.* (IF=4.775)

李新建

1. You-Ping Yang*, **Xinjian Li*** (2022) Veit Stuphorn, Primate anterior insular cortex represents economic decision variables proposed by prospect theory. *Nature communications.* (IF=17.694)
2. Lyu C, Yu C, Sun G, Zhao Y, Cai R, Sun H, Wang X, Jia G, Fan L, Chen X, Zhou L, Shen Y,* Gao L* and **Li X*** (2022) Deconstruction of Vermal Cerebellum in Ramp Locomotion in Mice. *Advance Science.* (IF=17.5)
3. Shuhao Qian, Jia Meng, Zhe Feng, Lingxi Zhou, Shenyi Jiang, Yalun Wang, Zitong Ye, Shuangmu Zhuo, Jianxin Chen, **Xinjian Li**, Lixia Gao, Zhihua Ding, Jun Qian, Zhiyi Liu (2022) Mapping Organizational Changes of Fiber-Like Structures in Disease Progression by Multiparametric. *Quantitative Imaging, Laser & Photonics Reviews.* (IF=10.947)
4. Wang X, Zhang Y, Bai S, Qi R, Sun H, Li R, Zhu L, Cao X, Jia G, **Li Xinjian**, Gao L (2022) Corticofugal modulation of temporal and rate representations in the inferior colliculus of the awake marmoset. *Cereb Cortex.* (IF=4.861)
5. Cao X, Zhu L, Qi R, Wang X, Sun G, Ying Y, Chen R, **Li X**, and Gao L* (2022) Effect of a High Estrogen Level in Early Pregnancy on the Development and Behavior of Marmoset Offspring, *ACS Omega.* (IF=4.1)
6. Wang X, Zhang Y, Zhu L, Bai S, Li R, Sun H, Qi R, Cai R, Li M, Jia G, Cao X, Schriver K, **Li X** and Gao L (2022) Selective corticofugal modulation on sound processing in auditory thalamus of awake marmosets, *Cerebral cortex.* (IF=4.8)
7. Jia Meng, Zhe Feng, Shuhao Qian, Chuncheng Wang, **Xinjian Li**, Lixia Gao, Zhihua Ding, Jun Qian, Zhiyi Liu, Mapping physiological and pathological functions of cortical vasculature through aggregation-induced emission nanoprobes assisted quantitative, in vivo NIR-II imaging, *Biomaterials Advances.*

宋雪梅

1. Dong-Yu Liu, Xuan Ju, Yuan Gao, Jin-Fang Han, Zhe Li, Xi-Wen Hu, Zhong-Lin Tan, Georg Northoff*, **Xue Mei Song*** (2022) From molecular to behavior: higher order occipital cortex

in major depressive disorder. *Cerebral Cortex*. (IF=5.4).

Toru Takahata

1. Du X, Jiang X, Kuriki I, **Takahata T**, Zhou T, Roe AW*, Tanigawa H* (2022) Representation of Cone-Opponent Color Space in Macaque Early Visual Cortices. *Frontiers in Neuroscience*. (IF=5.512)
2. Jaime F. Olavarria, Huixin Qi, **Toru Takahata**, Jon H. Kaas (2022) Overall patterns of eye-specific retino-geniculo-cortical projections to layers III, IV, and VI in primary visual cortex of the greater galago (*Otolemur crassicaudatus*), and correlation with cytochrome oxidase blobs. (IF=1.895)
3. Li S, Li H, **Takahata T*** (2022) Pigmented Long-Evans rats demonstrate better visual ability than albino Wistar rats in slow angles-descent forepaw grasping test. *Neuroreport*, Online ahead of print. (IF=1.7)

王朗

1. Hu Z, Ma J, Yue H, Luo Y, Li X, Wang C, Wang L, Sun B, Chen Z, **Wang L***, Gu Y (2022) Involvement of LIN28A in Wnt-dependent regulation of hippocampal neurogenesis in the aging brain. *Stem Cell Reports*. (IF=7.294)

奚望

1. Zheng Zheng##*, Hequn Zhang#, Hui Cao, Junyi Gong , Mubin He, Xuexin Gou, Tianyu Yang, Peifa Wei, Jun Qian, **Wang Xi***, Ben Zhong Tang* (2022) Intra- and Intermolecular Synergistic Engineering of Aggregation-Induced Emission Luminogens to Boost Three-Photon Absorption for Through-Skull Brain Imaging. *ACS Nano*. (IF=18.027)
2. Zhu L, Wang M, Liu Y, Zhang W, Zhang H, Anna W*, **Xi W*** (2022) Precision 1070 nm Ultrafast Laser-Induced Photothrombosis of Depth-Targeted Vessels In Vivo. *Small Methods*. (IF=15.367)
3. Zhang H‡, Fu P‡, Liu Y‡, Zheng Z, Zhu L, Wang M, Abdellah M, Qian J*, Anna W*, and **Xi W*** (2022) Large-depth three-photon fluorescence microscopy imaging of cortical microvasculature on nonhuman primates with bright AIE probe In vivo. *Biomaterials*. (IF=15.304)
4. Xiaomeng Wang#, Mengqi Wang#, Hao Sheng#, Liang Zhu, Junming Zhu, Hequn Zhang, Yin Liu, Li Zhan, Jiaozhen Zhang, Zhigang Suo*, **Wang Xi***, Hao Wang* (2022) Subdural Neural Interfaces for Long-term Electrical Recording, Optical Microscopy and Magnetic

Resonance Imaging. Biomaterials. (IF=15.304)

5. Hequn Zhang, Liang Zhu, Dave Schwinn Gao, Yin Liu, Jun Zhang, Min Yan,* Jun Qian,* and **Wang Xi*** (2022) Imaging the Deep Spinal Cord Microvascular Structure and Function with High-Speed NIR-II Fluorescence Microscopy. Small Methods.. (IF=14.188)
6. Liu Y., Dave SG, Hu JM, Chen Z.*, **Xi W.*** (2022) Long-term development of dynamic changes in neurovascular coupling after acute temporal lobe epilepsy. Brain Research, Available online. (IF = 3.252)
7. Li D†, Hu Z†, Zhang H, Yang Q, Zhu L, Liu Y, Yu T, Zhu J, Wu J, He J, Fei P, **Xi W***, Qian J* and Zhu D* (2022) A Through-Intact-Skull (TIS) chronic window technique for cortical structure and function observation in mice. (Cover Story) eLight.

余雄杰

1. Yumei Gong, Yuying Zhai, Xinyu Du, Peirun Song, Haoxuan Xu, Qichen Zhang, **Xiongjie Yu** (2022) Cross-Modal Interaction and Integration Through Stimulus-Specific Adaptation in the Thalamic Reticular Nucleus of Rats. Neurosci Bull. Online ahead of print. (IF=5.203)

二、专利

1. 一种磁兼容神经探针的制备方法。国家发明专利，ZL 20211081758.6 **赖欣怡**、陈右颖、余晓、李思儒、张静文、林鼎钧。授权日期：2022/04/26
2. 一种电生理信号的去伪迹方法。国家发明专利，CN 2022107117400 **赖欣怡**，陈右颖，余晓，陈柏维，何婷婷，王海铭。申请日期：2022/06/24
3. 一种 T1-T2 双模态超高场磁共振造影剂及其制备方法和应用。中国发明专利，ZL202010982219.1 凌代舜，李方园，**白瑞良**，汪瑾。授权日期：2022/04/01
4. 一种人工喂养新生狨猴的方法。国家发明专利，202110966465.2 **高利霞**，贾国强，**李新建**，李瑞，孙昊。授权日期：2022/07/25
5. 基于感知测量范式对抑郁症和精神分裂症视觉检测方法。中国发明专利，202211052105.2 **宋雪梅**，刘冬雨，谭忠林，陶云海。申请日期：2022/08/31
6. 一种基于 VR 设备的视觉运动感知检测方法及其装置。中国发明专利，202211140730.2 **宋雪梅**，朱君明，**Anna Wang Roe**。申请日期：2022/09/20.
7. 一种近红外飞秒激光模拟诱导血管栓塞系统。国家发明专利，202211055236.6 **奚望**，朱亮，王梦琪，付鹏，柳荫，张鹤群，王菁。申请日期：2022/08/31
8. 一种血管中血流以及血容量功能动态变化调控系统。国家发明专利，202211046775.3 **奚望**，柳荫，付鹏，朱亮，张鹤群，王梦琪，王菁。申请日期：2022/08/30
9. 测量水分子跨细胞膜流出速率的方法及应用、胶质瘤磁共振影像学标志物的测量方法及系统。中国发明专利，CN202210666908.0 **白瑞良**，贾银行，刘英超，韩广旭。申请日期：2022/06/13
10. 基于跨域网络的磁共振成像采样和重建方法，中国发明专利，CN202210176538.2 **白瑞良**，程昭玮，金心宇。申请日期：2022/06/09

11. 一种定量测量脑白质髓鞘内外水分子交换速率的方法。中国发明专利，

CN202111482739.7 **白瑞良**，李昭青。申请日期：2022/03/14