



Xue Zhang

Postdoctoral Scholar, Psychiatry

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BIO

Dr. Zhang received her PhD degree in 2019 in Biomedical Engineering from Tsinghua University School of Medicine. She was a Visiting Student Researcher in the Radiology Department at Stanford in 2017-2018. Her PhD research involved methods development for dynamic fMRI and concurrent fPET-fMRI and its application in identifying neuroimaging markers for depression vulnerability. As a postdoc in Williams PanLab, Dr. Zhang's research interest lies at the intersection of neuroimaging and computation, and their translation in addressing clinical questions in psychiatry. Currently, Dr. Zhang is interested in how the acute experience under ketamin, MDMA, and psilocybin modulates brain activity changes under resting-state and task-evoked states and its relevance to their therapeutic effect.

PROFESSIONAL EDUCATION

- Bachelor of Engineering, Capital Medical University (2013)
- Doctor of Philosophy, Tsinghua University (2019)

STANFORD ADVISORS

- Leanne Williams, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Ketamine's acute effects on negative brain states are mediated through distinct altered states of consciousness in humans.** *Nature communications*
Hack, L. M., Zhang, X., Heifets, B. D., Suppes, T., van Roessel, P. J., Yesavage, J. A., Gray, N. J., Hilton, R., Bertrand, C., Rodriguez, C. I., Deisseroth, K., Knutson, B., Williams, et al
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- **Effects of Levodopa Therapy on Cerebral Arteries and Perfusion in Parkinson's Disease Patients.** *Journal of magnetic resonance imaging : JMRI*
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- **Activation of Cognitive Control Network During Inhibition Processing Dynamically Predicts Symptom Outcomes for Depression: A 24-month Longitudinal Study**
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- **Striato-Cortical Neuroimaging Markers in the Reward Network Distinguish Melancholic Depression and Response to Treatment: An iSPOT-D Report**
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- **Reduced functional connectivity of default mode network subsystems in depression: Meta-analytic evidence and relationship with trait rumination.** *NeuroImage. Clinical*

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- **Deep learning-based MR fingerprinting ASL ReconStruction (DeepMARS)** *MAGNETIC RESONANCE IN MEDICINE*
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- **Dynamic changes in thalamic connectivity following stress and its association with future depression severity** *BRAIN AND BEHAVIOR*
Zhang, X., Li, X., Steffens, D. C., Guo, H., Wang, L.
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- **Downward cross-modal plasticity in single-sided deafness** *NEUROIMAGE*
Qiao, Y., Li, X., Shen, H., Zhang, X., Sun, Y., Hao, W., Guo, B., Ni, D., Gao, Z., Guo, H., Shang, Y.
2019; 197: 608–17
- **Exploring common changes after acute mental stress and acute tryptophan depletion: Resting-state fMRI studies** *JOURNAL OF PSYCHIATRIC RESEARCH*
Zhang, X., Huettel, S. A., Mullette-Gillman, O. A., Guo, H., Wang, L.
2019; 113: 172–80
- **Physical exercise increases involvement of motor networks as a compensatory mechanism during a cognitively challenging task** *INTERNATIONAL JOURNAL OF GERIATRIC PSYCHIATRY*
Ji, L., Pearlson, G. D., Zhang, X., Steffens, D. C., Ji, X., Guo, H., Wang, L.
2018; 33 (8): 1153–59
- **Dual-TRACER: High resolution fMRI with constrained evolution reconstruction** *NEUROIMAGE*
Li, X., Ma, X., Li, L., Zhang, Z., Zhang, X., Tong, Y., Wang, L., Song, S., Guo, H.
2018; 164: 172–82