Stanford

Xunda Wang

Basic Life Res Scientist, Neurosurgery

Bio

CURRENT ROLE AT STANFORD

Research Scientist

Publications

PUBLICATIONS

- **Brain-wide resting-state fMRI network dynamics elicited by activation of single thalamic input.** *Nature communications*
  Xie, L., Wang, X., Lin, X., Wen, J., Ma, T., Leong, A. T., Wu, E. X.
  2025
- **Brain-Wide Spatiotemporally Distinct Traveling Waves Drive Anxiety-Like Behaviors in Mice.** *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*
  Liu, J., Mo, J. W., Wang, X., Ma, Y., Tian, S., Wang, Q., Kong, P. L., An, Z., Ding, L., Ren, J., Lu, C. L., Tong, C., Wu, et al
  2025: e11867
- **Olfactory cortical outputs recruit and shape distinct brain-wide spatiotemporal networks** *Elife*
  Ma, T., Wang, X., Lin, X., Wen, J., Xie, L., Khong, P., Cao, P., Wu, E., Leong, A.
  2024
- **Functional MRI reveals brain-wide actions of thalamically-initiated oscillatory activities on associative memory consolidation.** *Nature communications*
  Wang, X., Leong, A. T., Tan, S. Z., Wong, E. C., Liu, Y., Lim, L. W., Wu, E. X.
  2023; 14 (1): 2195
- **Astrocyte dysfunction drives abnormal resting-state functional connectivity in depression.** *Science advances*
  Liu, J., Mo, J. W., Wang, X., An, Z., Zhang, S., Zhang, C. Y., Yi, P., Leong, A. T., Ren, J., Chen, L. Y., Mo, R., Xie, Y., Feng, et al
  2022; 8 (46): eabo2098
- **Neural activity temporal pattern dictates long-range propagation targets.** *NeuroImage*
  Leong, A. T., Wang, X., Wong, E. C., Dong, C. M., Wu, E. X.
  2021; 235: 118032
- **Thalamic low frequency activity facilitates resting-state cortical interhemispheric MRI functional connectivity.** *NeuroImage*
  Wang, X. n., Leong, A. T., Chan, R. W., Wu, E. X.
  2019
- **Altered dynamic functional connectivity in antagonistic state in first-episode, drug-naïve patients with major depressive disorder.** *BMC psychiatry*
  Wang, M., Chen, T., He, Z., Chan, L. W., Guo, Q., Cai, S., Duan, J., Zhang, D., Wang, X., Fang, Y., Yang, H.
  2024; 24 (1): 909
- **Pushing the limits of low-cost ultra-low-field MRI by dual-acquisition deep learning 3D superresolution.** *Magnetic resonance in medicine*
  Lau, V., Xiao, L., Zhao, Y., Su, S., Ding, Y., Man, C., Wang, X., Tsang, A., Cao, P., Lau, G. K., Leung, G. K., Leong, A. T., Wu, et al
  2023; 90 (2): 400-416
- **Hippocampus Modulates Vocalizations Responses at Early Auditory Centers.** *NeuroImage*

Leong, A. T., Wong, E. C., Wang, X., Wu, E. X.
2023; 270: 119943

- **Optogenetic fMRI interrogation of brain-wide central vestibular pathways** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Leong, A. T. L., Gu, Y., Chan, Y., Zheng, H., Dong, C. M., Chan, R. W., Wang, X., Liu, Y., Tan, L., Wu, E. X.
  2019; 116 (20): 10122–29
- **Low-frequency hippocampal-cortical activity drives brain-wide resting-state functional MRI connectivity.** *Proceedings of the National Academy of Sciences of the United States of America*
  Chan, R. W., Leong, A. T., Ho, L. C., Gao, P. P., Wong, E. C., Dong, C. M., Wang, X., He, J., Chan, Y. S., Lim, L. W., Wu, E. X.
  2017; 114 (33): E6972-E6981
- **Biological Computation Indexes of Brain Oscillations in Unattended Facial Expression Processing Based on Event-Related Synchronization/Desynchronization.** *Computational and mathematical methods in medicine*
  Yu, B., Ma, L., Li, H., Zhao, L., Bo, H., Wang, X.
  2016; 2016: 8958750
- **The method of auditory cognitive control feature extraction of cerebral cortex potential for auditory modality speech conflicting** *ACTA ACUSTICA*
  Yu, B., Li, H., Ma, L., Wang, X.
  2016
- **The Complex Pre-Execution Stage of Auditory Cognitive Control: ERPs Evidence from Stroop Tasks.** *PloS one*
  Yu, B., Wang, X., Ma, L., Li, L., Li, H.
  2015; 10 (9): e0137649
- **Semantic-Physically Conflicting Speech Perception and Human Cognitive Principle Inspired ASR System Design**
  Wang, X., Li, H., Ma, L., Yu, B.
  edited by Li, J. B.
  IEEE.2015: 1094-1099
- **Automatic brain cognitive control detection method** *International Conference on Software Intelligence Technologies and Applications & International Conference on Frontiers of Internet of Things 2014*
  Yu, B., Li, H., Ma, L., Wang, X.
  2014