

Wen Li

Basic Life Research Scientist, Pathology Operations supported expenses #2

Bio

BIO

Wen's research focuses on mitochondrial reverse electron transport (RET) in neurodegenerative diseases where tau pathology plays either a primary or secondary pathogenic role. Her work seeks to understand how pathological tau disrupts mitochondrial complex I function and RET, and how these alterations contribute to oxidative stress and neurodegeneration. Her research further explores whether targeting RET can provide a shared therapeutic strategy across tau-associated neurodegenerative diseases.

EDUCATION AND CERTIFICATIONS

- PhD, Nankai University , Neuroscience (2017)

LINKS

- Featured research: <https://med.stanford.edu/news/all-news/2026/08/tau-alzheimers.html>

Professional

WORK EXPERIENCE

- Postdoc - Vanderbilt University (10/1/2018 - 9/30/2021)
- Postdoc - Stanford University (10/1/2021 - 10/30/2024)
- Research Scientist - Stanford University (11/1/2024 - present)

Publications

PUBLICATIONS

- **Tau-induced mitochondrial reverse electron transport drives neurodegeneration.** *Neuron*
Li, W., Rimal, S., Bhurtel, S., Yeung, L., Lu, B. G., Grinberg, L. T., Spina, S., Sillero, M. I., Seeley, W. W., Guo, S., Lu, B.
2026
- **IRE1 regulates the proteostasis of TDP-43/TARDBP in ALS/FTD through ribosome-associated quality control.** *Proceedings of the National Academy of Sciences of the United States of America*
Liu, D., Li, Y., Huang, S., Xu, Y., Sun, L., Li, W., O'Kane, C. J., Rubinsztein, D. C., Lu, B., Li, S.
2026; 123 (26): e2610001123
- **Deregulation of ER-mitochondria contact formation and mitochondrial calcium homeostasis mediated by VDAC in fragile X syndrome.** *Developmental cell*
Geng, J., Khaket, T. P., Pan, J., Li, W., Zhang, Y., Ping, Y., Cobos Sillero, M. I., Lu, B.
2023; 58 (7): 597-615.e10
- **Reverse electron transfer is activated during aging and contributes to aging and age-related disease.** *EMBO reports*
Rimal, S., Tantray, I., Li, Y., Pal Khaket, T., Li, Y., Bhurtel, S., Li, W., Zeng, C., Lu, B.
2023: e55548

- **Prevention of ribosome collision-induced neuromuscular degeneration by SARS CoV-2-encoded Nsp1.** *Proceedings of the National Academy of Sciences of the United States of America*
Wang, X., Rimal, S., Tantray, I., Geng, J., Bhurtel, S., Khaket, T. P., Li, W., Han, Z., Lu, B.
2022; 119 (42): e2202322119
- **Dendritic Inhibition by Shh Signaling-Dependent Stellate Cell Pool Is Critical for Motor Learning** *JOURNAL OF NEUROSCIENCE*
Li, W., Chen, L., Fleming, J. T., Brignola, E., Zavalin, K., Lagrange, A., Rex, T., Heiney, S. A., Wojaczynski, G. J., Medina, J. F., Chiang, C.
2022; 42 (26): 5130-5143
- **Autophagy is required for human umbilical cord mesenchymal stem cells to improve spatial working memory in APP/PS1 transgenic mouse model** *STEM CELL RESEARCH & THERAPY*
Li, W., Li, K., Gao, J., Yang, Z.
2018; 9: 9
- **Autophagy is involved in mouse kidney development and podocyte differentiation regulated by Notch signalling** *JOURNAL OF CELLULAR AND MOLECULAR MEDICINE*
Zhang, C., Li, W., Wen, J., Yang, Z.
2017; 21 (7): 1315-1328
- **Icariin combined with human umbilical cord mesenchymal stem cells significantly improve the impaired kidney function in chronic renal failure** *MOLECULAR AND CELLULAR BIOCHEMISTRY*
Li, W., Wang, L., Chu, X., Cui, H., Bian, Y.
2017; 428 (1-2): 203-212
- **Etidronate rescues cognitive deficits through improving synaptic transmission and suppressing apoptosis in 2-vessel occlusion model rats** *JOURNAL OF NEUROCHEMISTRY*
Li, W., Yuan, H., Yu, Y., Cheong, Y., Ren, G., Yang, Z.
2017; 140 (3): 476-484
- **Neuroprotective Effects of Etidronate and 2,3,3-Trisphosphonate Against Glutamate-Induced Toxicity in PC12 Cells** *NEUROCHEMICAL RESEARCH*
Li, W., Cheong, Y., Wang, H., Ren, G., Yang, Z.
2016; 41 (4): 844-854
- **Toxicology of nanosized titanium dioxide: an update** *ARCHIVES OF TOXICOLOGY*
Zhang, X., Li, W., Yang, Z.
2015; 89 (12): 2207-2217
- **Nucleus-staining with biomolecule-mimicking nitrogen-doped carbon dots prepared by a fast neutralization heat strategy** *CHEMICAL COMMUNICATIONS*
Kang, Y., Fang, Y., Li, Y., Li, W., Yin, X.
2015; 51 (95): 16956-16959