



## Rebecca Shi

Lecturer  
Biology

### Bio

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#### ACADEMIC APPOINTMENTS

- Lecturer, Biology

### Publications

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#### PUBLICATIONS

- **Stochastic growth and ligand-receptor interaction-mediated stabilization generate stereotyped dendritic arbors.** *Nature neuroscience*  
Shi, R., Ho, X. Y., Tao, L., Bayless-Edwards, L., Taylor, C. A., Zhao, T., Zou, W., Lizzappi, M., Eichel, K., Mao, T., Shen, K.  
2026
- **The intrinsically disordered cytoplasmic tail of a dendrite branching receptor uses two distinct mechanisms to regulate the actin cytoskeleton.** *eLife*  
Kramer, D. A., Narvaez-Ortiz, H. Y., Patel, U., Shi, R., Shen, K., Nolen, B. J., Roche, J., Chen, B.  
2023; 12
- **Dendrites use mechanosensitive channels to proofread ligand-mediated neurite extension during morphogenesis.** *Developmental cell*  
Tao, L., Coakley, S., Shi, R., Shen, K.  
2022
- **A two-step actin polymerization mechanism drives dendrite branching.** *Neural development*  
Shi, R., Kramer, D. A., Chen, B., Shen, K.  
2021; 16 (1): 3
- **The Golgi Outpost Protein TPPP Nucleates Microtubules and Is Critical for Myelination.** *Cell*  
Fu, M. M., McAlear, T. S., Nguyen, H. n., Osés-Prieto, J. A., Valenzuela, A. n., Shi, R. D., Perrino, J. J., Huang, T. T., Burlingame, A. L., Bechstedt, S. n., Barres, B. A.  
2019
- **SAP102 regulates synaptic AMPAR function through a CNIH-2-dependent mechanism** *JOURNAL OF NEUROPHYSIOLOGY*  
Liu, M., Shi, R., Hwang, H., Han, K., Wong, M., Ren, X., Lewis, L. D., Brown, E. N., Xu, W.  
2018; 120 (4): 1578–86
- **A Dendritic Guidance Receptor Complex Brings Together Distinct Actin Regulators to Drive Efficient F-Actin Assembly and Branching** *DEVELOPMENTAL CELL*  
Zou, W., Dong, X., Broedersdorf, T. R., Shen, A., Kramer, D. A., Shi, R., Liang, X., Miller, D. M., Xiang, Y. K., Yasuda, R., Chen, B., Shen, K.  
2018; 45 (3): 362+
- **Shank Proteins Differentially Regulate Synaptic Transmission (vol 4, e0163-15.2017, 2017)** *ENEURO*  
Shi, R., Redman, P., Ghose, D., Hwang, H., Liu, Y., Ren, X., Ding, L. J., Liu, M., Jones, K. J., Xu, W.  
2018; 5 (1)

- **Dissecting the Role of P/Q-Type Calcium Channels in Corticothalamic Circuit Dysfunction and Absence Epilepsy.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*  
Shi, R. n., Schroeder, G. M., Nimarko, A. F.  
2016; 36 (21): 5677–79
- **Differential requirement for NMDAR activity in SAP97 beta-mediated regulation of the number and strength of glutamatergic AMPAR-containing synapses** *JOURNAL OF NEUROPHYSIOLOGY*  
Liu, M., Lewis, L. D., Shi, R., Brown, E. N., Xu, W.  
2014; 111 (3): 648-658