

## Handuo Shi

Postdoctoral Research Fellow, Microbiology and Immunology

### Bio

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#### STANFORD ADVISORS

- Justin Sonnenburg, Postdoctoral Faculty Sponsor

### Publications

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#### PUBLICATIONS

- **Conservation of conformational dynamics across prokaryotic actins** *PLOS COMPUTATIONAL BIOLOGY*  
Ng, N., Shi, H., Colavin, A., Huang, K.  
2019; 15 (4)
- **Conservation of conformational dynamics across prokaryotic actins.** *PLoS computational biology*  
Ng, N., Shi, H., Colavin, A., Huang, K. C.  
2019; 15 (4): e1006683
- **RodZ modulates geometric localization of the bacterial actin MreB to regulate cell shape** *NATURE COMMUNICATIONS*  
Colavin, A., Shi, H., Huang, K.  
2018; 9: 1280
- **How to Build a Bacterial Cell: MreB as the Foreman of E. coli Construction** *CELL*  
Shi, H., Bratton, B. P., Gitai, Z., Huang, K.  
2018; 172 (6): 1294–1305
- **Conformational Twisting of MREB Double Protofilament in Simulation Predicts Filament Length In Vivo**  
Shi, H., Huang, K. C.  
CELL PRESS.2018: 381A
- **Deep Phenotypic Mapping of Bacterial Cytoskeletal Mutants Reveals Physiological Robustness to Cell Size** *CURRENT BIOLOGY*  
Shi, H., Colavin, A., Bigos, M., Tropini, C., Monds, R. D., Huang, K.  
2017; 27 (22): 3419–+
- **Rapid, precise quantification of bacterial cellular dimensions across a genomic-scale knockout library.** *BMC biology*  
Ursell, T., Lee, T. K., Shiomi, D., Shi, H., Tropini, C., Monds, R. D., Colavin, A., Billings, G., Bhaya-Grossman, I., Broxton, M., Huang, B. E., Niki, H., Huang, et al  
2017; 15 (1): 17–?
- **Strain Library Imaging Protocol for high-throughput, automated single-cell microscopy of large bacterial collections arrayed on multiwell plates.** *Nature protocols*  
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- **Single-molecule imaging reveals modulation of cell wall synthesis dynamics in live bacterial cells** *NATURE COMMUNICATIONS*  
Lee, T. K., Meng, K., Shi, H., Huang, K. C.  
2016; 7
- **A Comprehensive, CRISPR-based Functional Analysis of Essential Genes in Bacteria** *CELL*

Peters, J. M., Colavin, A., Shi, H., Czarny, T. L., Larson, M. H., Wong, S., Hawkins, J. S., Lu, C. H., Koo, B., Marta, E., Shiver, A. L., Whitehead, E. H., Weissman, et al

2016; 165 (6): 1493-1506

- **Disruption of lipid homeostasis in the Gram-negative cell envelope activates a novel cell death pathway** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

Sutterlin, H. A., Shi, H., May, K. L., Miguel, A., Khare, S., Huang, K. C., Silhavy, T. J.

2016; 113 (11): E1565-E1574

- **Disruption of lipid homeostasis in the Gram-negative cell envelope activates a novel cell death pathway.** *Proceedings of the National Academy of Sciences of the United States of America*

Sutterlin, H. A., Shi, H., May, K. L., Miguel, A., Khare, S., Huang, K. C., Silhavy, T. J.

2016; 113 (11): E1565-74