

Benjamin Wang

Postdoctoral Scholar, Microbiology and Immunology

Bio

HONORS AND AWARDS

- NIAID Pathway To Independence Award (K99/R00), NIH NIAID (2025-present)
- AP Giannini postdoctoral fellowship award, AP Giannini Foundation (2023-2025)
- MCHRI postdoctoral fellowship award, MCHRI (2022-2023)
- T32 postdoctoral training grant award, NIH (2022)
- MIT teaching award, MIT (2016)
- NSF GRFP fellowship award, NSF (2015-2021)
- Perpall speaking award, 1st place, Caltech (2015)
- Amgen SURF fellowship award, Amgen and Caltech (2014)
- SURF fellowship award, Caltech (2012-2015)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Massachusetts Institute of Technology (2021)
- Bachelor of Science, California Institute of Technology (2015)
- PhD, MIT , Microbiology (2021)
- BS, Caltech , Biology (2015)

STANFORD ADVISORS

- Denise Monack, Postdoctoral Faculty Sponsor

LINKS

- Publications: <https://scholar.google.com/citations?user=09s1EskAAAAJ&hl=en>

Publications

PUBLICATIONS

- **Profiling Salmonella transcriptional dynamics during macrophage infection using a comprehensive reporter library.** *Nature microbiology*
Nguyen, T. H., Wang, B. X., Diaz, O. R., Rajendram, M., McKenna, J. A., Butler, D. S., Hokamp, K., Hinton, J. C., Monack, D. M., Huang, K. C.
2025; 10 (4): 1006-1023
- **High-throughput fitness screens link genes to unique phenotypes in human-restricted <i>Salmonella</i>** *NATURE GENETICS*
Wang, B. X., Monack, D. M.
2024; 56 (7): 1053-1054
- **High-throughput fitness experiments reveal specific vulnerabilities of human-adapted Salmonella during stress and infection.** *Nature genetics*
Wang, B. X., Leshchiner, D., Luo, L., Tuncel, M., Hokamp, K., Hinton, J. C., Monack, D. M.
2024

- **One species, different diseases: the unique molecular mechanisms that underlie the pathogenesis of typhoidal Salmonella infections.** *Current opinion in microbiology*
Wang, B. X., Butler, D. S., Hamblin, M., Monack, D. M.
2023; 72: 102262
- **Host-derived O-glycans inhibit toxigenic conversion by a virulence-encoding phage in Vibrio cholerae.** *The EMBO journal*
Wang, B. X., Takagi, J., McShane, A., Park, J. H., Aoki, K., Griffin, C., Teschler, J., Kitts, G., Minzer, G., Tiemeyer, M., Hevey, R., Yildiz, F., Ribbeck, et al
2022: e111562
- **Robust and tunable signal processing in mammalian cells via engineered covalent modification cycles** *NATURE COMMUNICATIONS*
Jones, R. D., Qian, Y., Ilia, K., Wang, B., Laub, M. T., Del Vecchio, D., Weiss, R.
2022; 13 (1): 1720
- **Evolution towards Virulence in a Burkholderia Two-Component System** *MBIO*
Schaefers, M. M., Wang, B. X., Boisvert, N. M., Martini, S. J., Bonney, S. L., Marshall, C. W., Laub, M. T., Cooper, V. S., Priebe, G. P.
2021; 12 (4): e0182321
- **Two-Component Signaling Systems Regulate Diverse Virulence-Associated Traits in Pseudomonas aeruginosa** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Wang, B. X., Cady, K. C., Oyarce, G. C., Ribbeck, K., Laub, M. T.
2021; 87 (11)
- **Mucin Glycans Signal through the Sensor Kinase RetS to Inhibit Virulence-Associated Traits in Pseudomonas aeruginosa** *CURRENT BIOLOGY*
Wang, B. X., Wheeler, K. M., Cady, K. C., Lehoux, S., Cummings, R. D., Laub, M. T., Ribbeck, K.
2021; 31 (1): 90-+
- **Home, sweet home: how mucus accommodates our microbiota** *FEBS JOURNAL*
Wang, B. X., Wu, C. M., Ribbeck, K.
2021; 288 (6): 1789-1799
- **The Pyruvate and alpha-Ketoglutarate Dehydrogenase Complexes of Pseudomonas aeruginosa Catalyze Pyocyanin and Phenazine-1-carboxylic Acid Reduction via the Subunit Dihydrolipoamide Dehydrogenase** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Glasser, N. R., Wang, B. X., Hoy, J. A., Newman, D. K.
2017; 292 (13): 5593-5607