

Stanford



Tong Wang, MD, PhD

- Affiliate, Department Funds
- Resident in Pathology

Bio

BIO

Resident physician scientist with interests in protein engineering, chemical biology, nucleic acids, epigenetic modifications, assay development, clinical diagnostics, personalized medicine, and laboratory developed tests

CLINICAL FOCUS

- Residency
- Clinical Pathology

PROFESSIONAL EDUCATION

- BS, University of Wisconsin-Madison , Honors in Chemistry (2015)
- PhD, Perelman School of Medicine at the University of Pennsylvania , Biochemistry and Molecular Biophysics (2021)
- MD, Perelman School of Medicine at the University of Pennsylvania (2023)

Publications

PUBLICATIONS

- **Joint single-cell profiling resolves 5mC and 5hmC and reveals their distinct gene regulatory effects.** *Nature biotechnology*
Fabyanic, E. B., Hu, P., Qiu, Q., Berrios, K. N., Connolly, D. R., Wang, T., Flournoy, J., Zhou, Z., Kohli, R. M., Wu, H.
2023
- **Revealing Drivers for Carboxy-S-adenosyl-l-methionine Use by Neomorphic Variants of a DNA Methyltransferase.** *ACS chemical biology*
Loo, C. E., Hix, M. A., Wang, T., Cisneros, G. A., Kohli, R. M.
2023
- **Direct enzymatic sequencing of 5-methylcytosine at single-base resolution.** *Nature chemical biology*
Wang, T., Fowler, J. M., Liu, L., Loo, C. E., Luo, M., Schutsky, E. K., Berrios, K. N., DeNizio, J. E., Dvorak, A., Downey, N., Montermoso, S., Pingul, B. Y., Nasrallah, et al
2023
- **The Base-Editing Enzyme APOBEC3A Catalyzes Cytosine Deamination in RNA with Low Proficiency and High Selectivity** *ACS CHEMICAL BIOLOGY*
Barka, A., Berrios, K. N., Bailer, P., Schutsky, E. K., Wang, T., Kohli, R. M.
2022; 17 (3): 629-636
- **Mutant IDH Inhibits IFN gamma-TET2 Signaling to Promote Immunoevasion and Tumor Maintenance in Cholangiocarcinoma** *CANCER DISCOVERY*
Wu, M., Shi, L., Dubrot, J., Merritt, J., Vijay, V., Wei, T., Kessler, E., Olander, K. E., Adil, R., Pankaj, A., Tummala, K., Weereseekara, V., Zhen, et al
2022; 12 (3): 812-835

- **Enzymatic approaches for profiling cytosine methylation and hydroxymethylation** *MOLECULAR METABOLISM*
Wang, T., Loo, C. E., Kohli, R. M.
2022; 57: 101314
- **Controllable genome editing with split-engineered base editors** *NATURE CHEMICAL BIOLOGY*
Berrios, K. N., Evitt, N. H., DeWeerd, R. A., Ren, D., Luo, M., Barka, A., Wang, T., Bartman, C. R., Lan, Y., Green, A. M., Shi, J., Kohli, R. M.
2021; 17 (12): 1262-1270
- **Functionally distinct roles for TET-oxidized 5-methylcytosine bases in somatic reprogramming to pluripotency** *MOLECULAR CELL*
Caldwell, B. A., Liu, M., Prasasya, R. D., Wang, T., DeNizio, J. E., Leu, N., Amoh, N. A., Krapp, C., Lan, Y., Shields, E. J., Bonasio, R., Lengner, C. J., Kohli, et al
2021; 81 (4): 859-869.e8
- **Discovery of an Unnatural DNA Modification Derived from a Natural Secondary Metabolite** *CELL CHEMICAL BIOLOGY*
Wang, T., Kohli, R. M.
2021; 28 (1): 97-+
- **Bisulfite-Free Sequencing of 5-Hydroxymethylcytosine with APOBEC-Coupled Epigenetic Sequencing (ACE-Seq)** *DNA MODIFICATIONS*
Wang, T., Luo, M., Berrios, K. N., Schutsky, E. K., Wu, H., Kohli, R. M., Ruzov, A., Gering, M.
2021; 2198: 349-367
- **Nucleobase Modifiers Identify TET Enzymes as Bifunctional DNA Dioxygenases Capable of Direct N-Demethylation** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*
Ghanty, U., Wang, T., Kohli, R. M.
2020; 59 (28): 11312-11315
- **Recognition of Class II MHC Peptide Ligands That Contain beta-Amino Acids** *JOURNAL OF IMMUNOLOGY*
Cheloha, R. W., Woodham, A. W., Bousbaine, D., Wang, T., Liu, S., Sidney, J., Sette, A., Gellman, S. H., Ploegh, H. L.
2019; 203 (6): 1619–28
- **Consequences of Periodic alpha-to-beta(3) Residue Replacement for Immunological Recognition of Peptide Epitopes** *ACS CHEMICAL BIOLOGY*
Cheloha, R. W., Sullivan, J. A., Wang, T., Sand, J. M., Sidney, J., Sette, A., Cook, M. E., Suresh, M., Gellman, S. H.
2015; 10 (3): 844-854