



## Tong Wang

- Affiliate, Department Funds
- Resident in Pathology
- Curriculum Vitae available Online

### Bio

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#### BIO

Tong Wang, MD, PhD, is a physician-scientist in clinical pathology with interests in nucleic acid chemical biology, epigenetics, deep learning, and clinically useful tests.

#### CLINICAL FOCUS

- Residency
- Clinical Pathology

#### PROFESSIONAL EDUCATION

- PhD, Perelman School of Medicine , Biochemistry and Molecular Biophysics (2021)
- MD, Perelman School of Medicine (2023)

#### INTERNET LINKS

- Website: <https://www.twangmdphd.com/>

### Publications

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#### PUBLICATIONS

- **Sensitive, direct detection of non-coding off-target base editor unwinding and editing in primary cells.** *bioRxiv : the preprint server for biology*  
Wang, T., Jessa, S., Marinov, G. K., Klemm, S., Kundaje, A., Greenleaf, W. J.  
2025
- **Application of Diagnostic Stewardship to Fungal Polymerase Chain Reaction: Low Yield of Follow-up Testing on Plasma and Bronchoalveolar Lavage After a Negative Result.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*  
Wang, T., Park, B., Anderson, G., Shaller, B., Budvytiene, I., Banaei, N.  
2024
- **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., Berríos, K. N., DeNizio, J. E., Dvorak, A., Downey, N., Monterroso, S., Pingul, B. Y., Nasrallah, et al  
2023
- **Enzymatic approaches for profiling cytosine methylation and hydroxymethylation** *MOLECULAR METABOLISM*  
Wang, T., Loo, C. E., Kohli, R. M.  
2022; 57: 101314
- **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.  
edited by Ruzov, A., Gering, M.  
2021; 2198: 349-367
- **Serologic investigation and management of an antibody screen negative para-Bombay phenotype during pregnancy.** *Transfusion medicine (Oxford, England)*  
Jamal, Y. A., Nicholas, J. A., Wang, T., Abdelmonem, M., Pandey, S., Virk, M. S.  
2025
- **Particulate matter in water: an overlooked source of preanalytical error producing erroneous chemistry test results.** *Clinical chemistry and laboratory medicine*  
Wang, T., Pizarro-Falcon, S., Quiros, A., Bowen, R. A.  
2024
- **HHV-8+ diffuse large B-cell lymphoma with EBV coinfection occurring posttransplant.** *Blood*  
Wang, T., Silva, O.  
2024; 144 (6): 677
- **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
- **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 Immuno-evasion 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., Weeresekara, V., Zhen, et al  
2022; 12 (3): 812-835
- **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
- **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