



Timothy Ting-Hsuan Wu

- MD Student, expected graduation Spring 2026
- Ph.D. Student in Biochemistry, admitted Summer 2021
- Casual - Non-Exempt, Medicine - Med/Pulmonary, Allergy & Critical Care Medicine

Bio

EDUCATION AND CERTIFICATIONS

- M.S., Stanford University School of Medicine , Biomedical Informatics (2018)
- B.S., Stanford University , Biology, with Honors (2017)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Molecular and cellular basis of lung development, renewal and disease;

Single cell analysis of SARS-CoV-2 lung infection;

Vascular inflammation and immune dysregulation in pulmonary hypertension.

Publications

PUBLICATIONS

- **Mouse lemur cell atlas informs primate genes, physiology and disease.** *Nature*
Ezran, C., Liu, S., Chang, S., Ming, J., Guethlein, L. A., Wang, M. F., Dehghannasiri, R., Olivieri, J., Frank, H. K., Tarashansky, A., Koh, W., Jing, Q., Botvinnik, et al
2025
- **A molecular cell atlas of mouse lemur, an emerging model primate.** *Nature*
Ezran, C., Liu, S., Chang, S., Ming, J., Botvinnik, O., Penland, L., Tarashansky, A., de Morree, A., Travaglini, K. J., Zhao, J., Wang, G., Hasegawa, K., Sin, et al
2025
- **Interstitial macrophages are a focus of viral takeover and inflammation in COVID-19 initiation in human lung.** *The Journal of experimental medicine*
Wu, T. T., Travaglini, K. J., Rustagi, A., Xu, D., Zhang, Y., Andronov, L., Jang, S., Gillich, A., Dehghannasiri, R., Martinez-Colon, G. J., Beck, A., Liu, D. D., Wilk, et al
2024; 221 (6)
- **An organism-wide atlas of hormonal signaling based on the mouse lemur single-cell transcriptome.** *Nature communications*
Liu, S., Ezran, C., Wang, M. F., Li, Z., Awayan, K., Long, J. Z., De Vlaminc, I., Wang, S., Epelbaum, J., Kuo, C. S., Terrien, J., Krasnow, M. A., Ferrell, et al
2024; 15 (1): 2188
- **Abnormal Lymphatic Sphingosine-1-Phosphate Signaling Aggravates Lymphatic Dysfunction and Tissue Inflammation.** *Circulation*
Kim, D., Tian, W., Wu, T. T., Xiang, M., Vinh, R., Chang, J. L., Gu, S., Lee, S., Zhu, Y., Guan, T., Schneider, E. C., Bao, E., Dixon, et al
2023

- **Neuroendocrinology of the lung revealed by single-cell RNA sequencing.** *eLife*
Kuo, C. S., Darmanis, S., Diaz de Arce, A., Liu, Y., Almanzar, N., Wu, T. T., Quake, S. R., Krasnow, M. A.
2022; 11
- **The Tabula Sapiens: A multiple-organ, single-cell transcriptomic atlas of humans.** *Science (New York, N.Y.)*
Jones, R. C., Karkanas, J., Krasnow, M. A., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaupt, B., Brown, P., Harper, W., Hemenez, M., Ponnusamy, R., Salehi, et al
2022; 376 (6594): eabl4896
- **Cell types of origin of the cell-free transcriptome.** *Nature biotechnology*
Vorperian, S. K., Moufarrej, M. N., Tabula Sapiens Consortium, Quake, S. R., Jones, R. C., Karkanas, J., Krasnow, M., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaupt, B., Brown, P., et al
2022
- **RNA splicing programs define tissue compartments and cell types at single-cell resolution** *ELIFE*
Olivieri, J., Dehghannasiri, R., Wang, P. L., Jang, S., de Morree, A., Tan, S. Y., Ming, J., Wu, A., Consortium, T., Quake, S. R., Krasnow, M. A., Salzman, J.
2021; 10
- **The Unfolded Protein Response as a Compensatory Mechanism and Potential Therapeutic Target in PLN R14del Cardiomyopathy.** *Circulation*
Feyen, D. A., Perea-Gil, I., Maas, R. G., Harakalova, M., Gavidia, A. A., Arthur Ataam, J., Wu, T., Vink, A., Pei, J., Vadgama, N., Suurmeijer, A. J., Te Rijdt, W. P., Vu, et al
2021
- **Further studies of ion channels in the electroreceptor of the skate through deep sequencing, cloning and cross species comparisons.** *Gene*
Clusin, W. T., Wu, T., Shi, L., Kao, P. N.
2019; 143989
- **Inducible expression of immediate early genes is regulated through dynamic chromatin association by NF45/ILF2 and NF90/NF110/ILF3** *PLOS ONE*
Wu, T., Shi, L., Lowe, A. W., Nicolls, M. R., Kao, P. N.
2019; 14 (4)
- **Phenotypically-Silent Bone Morphogenetic Protein Receptor 2 (Bmpr2) Mutations Predispose Rats to Inflammation-Induced Pulmonary Arterial Hypertension by Enhancing The Risk for Neointimal Transformation.** *Circulation*
Tian, W. n., Jiang, X. n., Sung, Y. K., Shuffle, E. n., Wu, T. H., Kao, P. N., Tu, A. B., Dorfmueller, P. n., Cao, A. n., Wang, L. n., Peng, G. n., Kim, Y. n., Zhang, et al
2019
- **NF90/ILF3 is a transcription factor that promotes proliferation over differentiation by hierarchical regulation in K562 erythroleukemia cells** *PLOS ONE*
Wu, T., Shi, L., Adrian, J., Shi, M., Nair, R. V., Snyder, M. P., Kao, P. N.
2018; 13 (3): e0193126