

# Tao Yue, PhD

Assistant Professor (Tenure-track)  
Center for the Genetics of Host Defense  
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## Employment

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<b>Assistant Professor (Tenure-track)</b> , Center for the Genetics of Host Defense UT Southwestern Medical Center, Dallas TX	2024-Present
<b>Assistant Professor (Tenure-track)</b> , Department of Surgery UT Southwestern Medical Center, Dallas TX	2022-2024
<b>Senior Scientist</b> , UT Southwestern Medical Center, Dallas/ Aetio Biotherapy, Inc., TX Advisor: Dr. Yang-Xin Fu	2020-2022
<b>Postdoctoral Research Fellow and Instructor</b> Center for the Genetics of Host Defense and Department of Immunology University of Texas Southwestern Medical Center at Dallas Advisor: Dr. Bruce Alan Beutler	2012-2020

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## Education

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**Ph.D. of Genetics**, University of Texas Southwestern Medical Center  
Advisor: Dr. Jin Jiang

**Ph.D. Student of Molecular Biology**, Sun Yat-Sen University, School of Medicine  
Advisor: Dr. Zhengyu Zhu

**BS in Biology**, South China Normal University

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## Research Support

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NIH NCI-KCP SPORE (P50CA196516) Role: Basic Project Co-Leader <i>Translational immunology platform for biomarker prediction and immunotherapy development</i>	11/1/2024-6/31/2027
Rally Foundation Childhood Cancer Career Development Award (24CDN03) Role: PI	7/01/24-6/30/2027

*Leveraging the Immune System for the Treatment of Metastatic Osteosarcoma*

NIH NCI-R01CA289258 (PI, Jinming Gao)

4/1/2024-3/31/2029

Role: Co-Investigator

*Tumor-activatable Interleukin-2 Superkine Nanoparticle Therapy*

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## Honors and Awards

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Rally Foundation Childhood Cancer Career Development Award

2024

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## Activities

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Editor, *Frontiers in Immunology*

2024-present

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## Patent

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**2021** U.S. Patent, WO2021222762, “Activatable IL2 Composition and Methods of Use” (**Main Inventor**)

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## Memberships and Services

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American Association for Cancer Research  
Society for Immunotherapy of Cancer  
Orthopaedic Research Society  
American Society for Bone and Mineral Research

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## Invited Talks

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12/2024 Simmons Comprehensive Cancer Center, ImmunoBiology Retreat, UT Southwestern Medical Center, Dallas, TX.  
08/2023 New Faculty Research Forum, Simmons Comprehensive Cancer Center, Dallas, TX.  
03/2023 Research Forum, Department of Surgery, UT Southwestern Medical Center, Dallas, TX.  
01/2012 54th Annual Drosophila Conference, Washington, DC.

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## Selected Peer Reviewed Publications

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- 1 **Yue, T.**, Zhan, X., Zhang, D., Jain, R., Wang, K., Su, L., Choi, J., Quan, J., Hildebrand, S., Xu, D., Li, X., Turer, E., Sun, L., Moresco, E., Beutler, B. SLFN2 protection of tRNAs from stress-induced cleavage is essential for T cell-mediated immunity. *Science*. 2021 May 14;372(6543): eaba4220.
- 2 Xue Wang, Long Liu, **Tao Yue**, Zhichen Sun, Joonbeom Bae, Kuofu Tseng, Jian Qiao, Yang-Xin Fu.

- Targeting tumor microenvironment with antibody-guided IL-2 pro-cytokine promotes and rejuvenates dysfunctional CD8<sup>+</sup> T cells. *Signal Transduction and Targeted Therapy*. 8, 268 (2023). PubMed Central PMCID: PMC10336100.
- 3 Zhang, D., **Yue, T.**, Choi, J., Nair-Gill, E., Zhong, X., Wang, K., Zhan, X., Li, X., Choi, J., Tang, M., Quan, J., Hildebrand, S., Moresco, E., Beutler, B. Syndromic immune disorder caused by a viable hypomorphic allele of spliceosome component Snrnp40. *Nature Immunology*. 2019; 20(10):1322-1334.
  - 4 Misawa, T., SoRelle, J., Choi, J., **Yue, T.**, Wang, K., McAlpine W., Wang, J., Liu, A., Tabeta K., Turer, E., Evers, B., Nair-Gill, E., Poddar, S., Su, L., Ou, F., Yu, L., Russell, J., Ludwig, S., Zhan, X., Hildebrand, S., Li, X., Tang, M., Murray, A., Moresco, E., Beutler B. Mutual inhibition between Prkd2 and Bcl6 controls T follicular helper cell differentiation. *Science Immunology*. 2020 24; 5(43)
  - 5 **Yue, T.**, Tian, A., Jiang, J. The cell adhesion molecule Echinoid functions as a tumor suppressor and upstream regulator of the Hippo signaling pathway. *Developmental Cell*. 2012; 22:255-267.
  - 6 **Yue, T.**, Xian, K., Hurlock, E., Xin, M., Kernie, S., Parada, L., Lu, QR. A critical role for dorsal progenitors in cortical myelination. *J Neurosci*. 2006; 26(4):1275-1280.
  - 7 **\*Yue, T.**, \*Mei, X., Ma, Z., Wu, F., Lu, QR. Myelinogenesis and axonal recognition by oligodendrocytes in brain are uncoupled in Olig1-null mice. *J Neurosci*. 2005; 25(6):1354-1365 (\*co-first author).
  - 8 Wang, K., Zhan, X., McAlpine, W., Zhang, Z., Choi, JH., Shi, H., Misawa, T., **Yue, T.**, Zhang, D., Wang, Y., Ludwig, S., Russell, J., Tang, M., Li, X., Murray, AR., Moresco, EMY., Turer, EE., Beutler, B.. Enhanced susceptibility to chemically induced colitis caused by excessive endosomal TLR signaling in LRBA-deficient mice. *PNAS*. 2019; 116(23):11380-11389.
  - 9 Ma, G., Li, S., Han, Y., Li, S., **Yue, T.**, Wang, B., Jiang, J.. Regulation of Smoothed Trafficking and Hedgehog Signaling by the SUMO Pathway. *Developmental Cell*. 2016 21;438-451.
  - 10 Li, S., Cho, Y., **Yue, T.**, Ip, Y, Jiang J. Overlapping functions of the MAP4K family kinases Hppy and Msn in Hippo signaling. *Cell Discovery*. 2015; 1:15038.
  - 11 Wang, T., Zhan, X., Bu, C., Lyon, S., Pratt, D., Hildebrand, S., Choi, J., Zhang, Z., Zeng, M., Wang, K., Turer, E., Chen, Z., Zhang, D., **Yue T.**, Wang, Y., Shi, H., Wang, J., Sun, L., SoRelle, J., McAlpine, W., Hutchins, N., Zhan, X., Fina, M., Gobert, R., Quan, J., Kreutzer, M., Arnett, S., Hawkins, K., Leach, A., Tate, C., Daniel, C., Reyna, C., Prince, L., Davis, S., Purrington, J., Bearden, R., Weatherly J., D. White, Russell, J., Sun, Q., Tang, M., Li, X., Scott, L., Moresco, E., McInerney, G., Karlsson, Hedestam, G., Xie, Y., Beutler, B., Real-time resolution of point mutations that cause phenovariance in mice. *PNAS*. 2015; 112(5):E440-9.
  - 12 Li, S., Chen, Y., Shi, Q., **Yue, T.**, Wang, B., Jiang, J. Hedgehog-Regulated Ubiquitination Controls Smoothed Trafficking and Cell Surface Expression in *Drosophila*. *PLoS Biol*. 2012 Jan; 10(1).e1001239.

- 13 Chen, Y., Sasai, N., Ma, G., **Yue, T.**, Jia, J., Briscoe, J., Jiang, J. Sonic Hedgehog dependent phosphorylation by CK1 $\alpha$  and GRK2 is required for ciliary accumulation and activation of smoothened. *PLoS Biol.* 2011; Jun; 9(6):e1001083.
- 14 Ren, F., Wang, B., **Yue, T.**, Yun, EY., Ip, YT., Jiang, J. Hippo signaling regulates Drosophila intestine stem cell proliferation through multiple pathways. *PNAS* . 2010; 107(49):21064-9.
- 15 Jia, H., Liu, Y., Xia, R., Tong, C., **Yue, T.**, Jiang, J., Jia, J. Casein kinase 2 promotes Hedgehog signaling by regulating both Smoothened and Cubitus interruptus. *J. Biol. Chem.* 2010; 285 (48):37218-26.
- 16 Zhang, Q., Shi, Q., Chen, Y., **Yue, T.**, Li, S., Wang, B., Jiang, J. Multiple Ser/Thr-rich degrons mediate the degradation of Ci/Gli by the Cul3-HIB/SPOP E3 ubiquitin ligase. *PNAS*. 2009; 106 (50):21191-6.
- 17 Zhang, L., **Yue, T.**, Jiang, J. Hippo signaling pathway and organ size control. *Fly*. 2009; 3 (1):68-73.
- 18 **Yue, T.**, Zhang, P., Liu, P., Deng, Q., Ji, Q., Li, X., Zhu, Z. Effect of transfection of hEndostatin gene on CNE2 cell xenograft growth in nude mice. *Ai Zheng*. 2003; 22(2):148-151.
- 19 **Yue, T.**, Liu, P., Deng, Q., Zhang P., Ji Q., Zhang, H., Zhu, Z. Signal peptide sequence of human interleukin-2 influenced hEndostatin gene expression and protein secretion in HepG2 cells. *Chinese Journal of Pathophysiology*. 2003; 19(9):1242-1245.

