

Jiawen Tang

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EDUCATION:

Wuhan University

Wuhan, China

- *Master of Clinical Medicine (Oncology)* 2023-Present
- **GPA:** 3.46/4.00

Henan Medical University (Former name: Xingxiang Medical University)

Xinxiang, China

- *Bachelor of Clinical Medicine* 2018-2023

English Proficiency: IELTS 6.5 (Listening 7.5, Reading 6.5, Writing 6, Speaking 6)

RESEARCH EXPERIENCE:

Wuhan University - Graduate Researcher (Advisor: Dr. Yan Gong) 2023-Present

DGAT2 deficiency suppresses NSCLC metastasis via impairing fatty acid metabolism balance and mitochondrial function (lead project)

- Established a highly invasive murine lung cancer cell line by generating a metastatic model via tail vein injection and isolating primary cells
- Performed CRISPR-Cas9 knockout screening targeting fatty acid metabolism genes under metastatic pressure in NSCLC
- Constructed monoclonal knockout cell lines and validated phenotypic changes using Transwell migration and wound-healing assays to confirm target efficacy *in vitro*

Caspase1 modulates CD8+ T cell infiltration through IL-1 β /18 secretion in tumor immune microenvironment of EGFR-TKI-resistant NSCLC (in collaboration with Dr. Xie's lab)

- Flow cytometry, immunofluorescence staining, Western blot, and qPCR were used to assess increased CD8+ T-cell infiltration and elevated PD-L1 expression in EGFR-TKI-resistant NSCLC cells
- Applied immunofluorescence staining and Pearson correlation analysis to show that CASP1 expression is positively associated with PD-L1
- Dual-luciferase reporter assay identified the binding site between CASP1 and its transcription factor SMAD1

CXADR loss sensitizes lung cancer to ATR inhibitors via genome-wide CRISPR screening (in collaboration with Dr. Xie's lab)

- Established mouse subcutaneous transplantation models to validate the efficacy of CXADR knockout combined with orally administered ATR inhibition *in vivo*

Henan Medical University - Undergraduate Researcher (Advisor: Dr. Siguang Xu)

2020-2021

Exosomal miR-340 derived from hUCMScs in treating radiation-induced lung injury

- Established and validated a mouse model of radiation-induced lung injury

- Isolated exosomes from hUCMScs overexpressing miR-340 and demonstrated therapeutic efficacy via tail vein injection

Publications:

1. Tang, J., Luo, J., Zhang, M., Wang, Q., Tan, Y., Yan, Y., Bai, S., Li, J., Wu, Y., Jiang, Z., Xie, C.*, Gong, Y.* DGAT2 deficiency suppresses NSCLC metastasis via impairing fatty acid metabolism balance and mitochondrial functions. *In Preparation.*
2. Cheng, Y. Tang, J., Luo, J., Zhang, M., Wang, Q., Tan, Y., Yan, Y., Bai, S., Li, J., Wu, Y., Gong, Y.* Xie, C.* Caspase1 modulates CD8+ T cell infiltration through IL-1 β /18 secretion in tumor immune microenvironment of EGFR-TKI-resistant NSCLC. *In Preparation.*
3. Huang, Z., Luo, J., Dai, P., Xia, M., Yuan, Y. Zhang, M., Han, L., Tang, J., Jiang, Z., Xie, C.* Gong, Y.* CDK4 inhibition improves the efficacy of radioimmunotherapy on non-small cell lung cancer via upregulating PD-L1 transcription through increased c-Jun activation. *Cancer Letters. In Review.*
4. Wang, M., Luo, J., Peng, S., Wang, Q., Zhang, M., Tang, J., Wu, Y., Jiang, Z., Xie, C.* Gong, Y.* Omega-3 long-chain polyunsaturated fatty acid metabolite 16-hydroxydocosahexaenoic acid strengthens non-small cell lung cancer radiosensitivity through peroxisome proliferator-activated receptor γ . *Clinical Nutrition. In Review.*
5. Yuan, Y., Jiang, Z., Zeng, Y., Tang, J., Luo, J., Xie, C.* Gong, Y.* Genome-wide CRISPR screen for unveiling radiosensitive and radioresistant genes. *Journal of Visualized Experiments.* 2025 May 23;(219).
6. Luo, J., Peng, S., Jiang, Z., Wang, Q., Zhang, M., Zeng, Y., Yuan, Y., Xia, M., Hong, Z., Yan, Y., Tan, Y., Tang, J., Xie, C.* Gong, Y.* Roles and therapeutic opportunities of ω -3 long-chain polyunsaturated fatty acids in lung cancer. *iScience.* 2024 Dec 14;28(1):111601.
7. Xia, M., Liang, C., Yuan, Y., Luo, J., Zeng, Y., Tang, J., Jiang, Z., Gong, Y.* Xie, C.* UBR1 promotes anaplastic thyroid carcinoma progression via stabilizing YAP through monoubiquitylation. *Scientific Reports.* 2024 Aug 22;14(1):19496.

Awards:

Outstanding Graduate of Henan Province	2023
First Prize, Henan Provincial Undergraduate Innovation and Training Program	2019-2020

Technical Skills:

Animals: Mouse model establishment (subcutaneous syngeneic, tail vein metastasis); drug administration (oral gavage, intravenous injection); anesthesia; sample collection (serum, tissues); primary cell isolation

Molecular & Cellular Biology: Cell culture, CRISPR-Cas9 gene editing, RT-qPCR, Western blot, immunofluorescence staining, flow cytometry, virus packaging,

siRNA/virus transfection, plasmid extraction

Data Analysis & Software: GraphPad Prism, Flow Jo, Image J, Living Image