

Xin Tang

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SUMMARY

Biomedical scientist with Ph.D. in Biomedical Engineering and 6+ years of postdoctoral research at USC Keck School of Medicine. Experienced in **molecular biology, gene editing (CRISPR/Cas9), and translational wound-healing and cancer research**, with additional expertise in **computational analysis and image processing** for biomedical data.

EDUCATION

Master of Software Engineering (MSWE) | University of California, Irvine | Expected Dec 2025

Ph.D. in Biomedical Engineering | Tongji University, Shanghai, China | July 2016

TECHNICAL SKILLS

- **Molecular Biology:** CRISPR/Cas9, gene cloning, western blot, transfection
 - **Cell & Animal Models:** Primary and stem cell culture, knockout mouse generation
 - **Protein & Imaging:** Purification, exosome isolation, fluorescence/confocal microscopy, ELISA, IP
 - **Computational Tools:** Python, C++, OpenCV, Java, ImageJ, C#
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SELECTED PROJECTS

Hypertension Educational Tool | UCI | Winner – American Heart Association (AHA) Educational Tools Contest 2025 | *React, Firebase* | [Portfolio](#)

- Built interactive medical platform for clinicians, real-time sync and offline support.

Automated Cell Type Annotation Platform | UCI | 2025 | *PyTorch, FastAPI, Postgres, Docker* | [Portfolio](#)

- Designed a full-stack ML web app for single-cell RNA-seq annotation with 10x faster GPU-based prediction.
- Deployed containerized REST API using Docker Compose for scalable biomedical data analysis.

Automated Cell Migration Analysis | USC Keck School of Medicine | *C#, OpenCV*

- Automated wound-healing quantification; reduced analysis time by 70%, improved accuracy 50%.

RESEARCH EXPERIENCE

2017-2023 | Research Associate | Dermatology, USC Keck School of Medicine, Los Angeles

- Created CRISPR/Cas9 Hsp90α knockout mice revealing roles in spermatogenesis and wound repair (2 first-author papers).
- Performed molecular and cell assays (PCR, western blot, immunostaining) to study Hsp90α/HIF-1α pathway.
- Identified extracellular Hsp90α on tumor exosomes, uncovering new signaling mechanisms in cancer.

2012-2016 | Graduate Researcher | Medical School, Tongji University, Shanghai

- Synthesized polymers for gene delivery with high efficiency and low cytotoxicity.
- Generated TRAIL-expressing stem cells exhibiting tumor homing and anti-tumor activity.

SELECTED PUBLICATIONS

Tang X, et al. *Cells*, 2024 – Secretory autophagy pathway supplying eHsp90α for wound healing.

Tang X, et al. *Cancer Gene Ther.*, 2021 – Hsp90α stabilizes HIF-1α in spermatogenesis and tumorigenesis.

Tang X, et al. *Acta Biomaterialia*, 2016 – Non-viral gene delivery using multifunctional polyurethanes.