

## **Xin-Qiao Zhang MD, MS, Ph.D**

5610 Piper Glen Ln, Missouri City, TX 77459

Website: [www.assisi.care](http://www.assisi.care)

### **EDUCATION**

M.D. | Shanxi Medical College, Taiyuan, China

M.S. | Guiyang Medical College, Guiyang, China

Ph.D. | Chinese Academy of Preventive Medicine, Beijing, China

Continue Education | Houston Community College, Houston TX

### **EXPERIENCE**

**Research Manager, AssisiCare LLC, Missouri City TX**

**Research Scientist UT MD Anderson Cancer Center, Houston TX**

**Assistant Professor UT MD Anderson Cancer Center, Houston TX**

**Instructor UT MD Anderson Cancer Center, Houston TX**

**Postdoc, UT MD Anderson Cancer Center, Houston TX**

#### **MD Anderson Research**

- Intravesical Ad-IFN/Syn3 for Superficial Bladder Cancer Examined the Mechanisms of Ad-IFN $\alpha$  Cancer Cell Kill and Preclinical Studies of Intravesical Ad-IFN/Syn3 for Superficial Bladder Cancer.
- Isolation of a Potent Cancer Specific Cytotoxic Factor(s) Produced by Ad-IFN $\alpha$  Funded initial work on the by-stander protein.
- Systemic RB94 Gene Therapy for Bladder Cancer and Mechanisms of Cell Kill Examined the mechanisms of RB94 cancer specific cell kill and undertook preclinical studies on RB94.
- MTAP gene and Pemetrexed (anti-folate drug) response, ClinicalTrials.gov Identifier: NCT03744793
- By-stand protein (a unique protein induced by AdIFN $\alpha$ ), projects with 5 publications and 7 AACR poster presentation
- Cancer Gene Therapy/viral vector development and liposome gene delivery

**Ph D Student and Postdoc, Chinese Science Academy of Preventive Medicine, Beijing, China**

- Gene Vaccine/adenoviral type 4 vector development
- Gene vaccine/ $\beta$ -gal and Hantaan virus gene expression with adenoviral type 4 vector
- Molecular virology/adenovirus gene sequencing

**Doctor in Chief, Deputy Director of Viruses Dept, CDC of Shanxi Province, Taiyuan, China**

- Viral diseases laboratory diagnosis and epidemiology research

**Graduate Student and Research Assistant, Guiyang Medical college, Guiyang, China**

- Viral diseases diagnosis,
- herb extracts antiviral effects
- Identification of New virus

**Doctor, CDC of Shanxi Province, Taiyuan, China**

- Viral diseases diagnosis, epidemiology research

## COMPUTER AND LAB DATA ANALYSIS: LEARNING AND SKILLS

- Python, R and RStudio
- CompTIA A+, with Certificate (ID COMP001021316057 <https://www.comptia.org/faq/a/what-is-comptia-a-certification> )
- CompTIA Network+, SAP Logistics with Materials Management & Production Planning
- Coursera: Genomic Data Science <https://www.coursera.org/specializations/genomic-data-science>
- DataCamp: RNA-seq Differential Expression Analysis, scRNA-seq Workflows in R
- Bioconductor packages: data management, processing, statistical data analysis
- Public bioinformatic resource search.

## LABORATORY EXPERIENCE

- Routine cell culture of primary cells and cell lines, for biomarker analyses, in vitro anticancer activity testing
- Molecular biology and Biochemistry: basic molecular biology and biochemistry techniques (RNA, DNA and protein) Western blotting and PCR; Plasmid preparation, DNA extraction PCR, Western Blot. Spectrophotometric protein, DNA determination, microRNA inhibition assay. RNA preparation for RNA seq.
- Knock in and shRNA knock down, basic Crisper molecular and cellular biology techniques/experience: be able to accurately pipet, follow protocols and perform accurate calculations as needed for the conduct of the work.
- trains lab personnel in performing genotyping experiment and using instrument, communicates with vendors whenever the equipment needs to be serviced or repaired
- basic and original immunology experiments, immunofluorescence staining and fluorescence microscopy, Flow cytometry, limited animal work experience in MD Anderson

## MANAGEMENT AND ADMINISTRATIVE EXPERIENCE

- Department Flowcytometry Core facility management and user training
- Experiment data analysis and troubleshooting maintain accurate, detailed records and experimental data and protocols, development and revision of technical protocols. Supervises the use and maintain of laboratory equipment and implements safety procedures
- Lab routine maintenance: laboratory supply orders; keeps laboratory well stocked and operational. Organized and keeps good documentation of all ordering forms, experiment record as well as research results. Lab safety monitoring.

## PUBLICATION

1. Huang J, Tan J, **Zhang X**. Identification of the sac brood bee virus in Guiyang. J of Guiyang Medical College 12(4):341-343, 7/1987.
2. **Zhang X**, Huang J. Investigation for the early diagnosis of children adenovirus pneumonia by detection of the antibodies to human adenovirus early antigens. J of Guiyang Medical College 15(3):199-204, 7/1990.
3. Wang J, **Zhang X**, Yang X. Research on the connection between chronic hepatitis, hepatic cirrhosis, hepatoma and infection of HBV, HCV. Modern Preventive Medicine 21(1):14-17, 7/1994.
4. **Zhang X**. Construction of Adenovirus Type four vector and expression of foreign genes. Ph. D Thesis, Chinese Academy of Preventive Medicine, 1996.
5. Zhang H, Li Q, **Zhang X**. An approach to pneumoconiosis with liposome mediated transfection gene transfer technique. China Public Health 13(1):37-38, 7/1997.
6. Zhang Huifeng , Li Qiuying, **Zhang Xin-Qiao** , Yao Rulin. Influence of Foreign wild-type P53 gene on proliferation of fibroblasts under the effect of alveolar macrophage exposed to dust. Chinese Journal of Public Health 18(3):143-145, 7/1999.
7. Yamashita M, Rosser CJ , Zhou JH, **Zhang X**, Connor RJ , Engler H, Maneval DC, Karashima T, Czerniak BA, Dinney CPN , Benedict WF. Syn3 provides high levels of intravesical adenoviral-mediated gene transfer for gene therapy of genetically altered urothelium and superficial bladder cancer. Cancer Gene Ther 9:687-691, 7/2002.
8. **Zhang X**, Multani A, Zhou JH , Shay JW , McConkey D , Dong L, Kim CS, Rosser CJ , Pathak S, Benedict WF. Adenoviral-mediated retinoblastoma 94 produces Rapid telomere erosion, chromosomal crisis, and caspase-dependent apoptosis in bladder cancer and immortalized human urothelial cells but not in normal urothelial cells. Cancer Research 63:760-765, 7/2003.

9. Benedict WF, Tao Z, Kim CS, **Zhang X**, Zhou JH, Adam L, McConkey DJ, Papageorgiou A, Munsell M, Philopena J, Engler H, Demers W, Maneval DC, Dinney CPN, Connor RJ. Intravesical Ad-IFN Overcomes Tumor Cell Resistance to IFN $\alpha$  Protein and Causes Tumor Regression in an Orthotopic Mouse Model. *J Mol Ther* 10:525-535, 7/2004.
10. **Zhang X**, Yang Z, Dong L, Papageorgiou A, McConkey DJ, Benedict WF. Adenoviral-mediated interferon alpha overcomes resistance to the interferon protein in various cancer types and has marked bystander effects. *Cancer Gene Ther* 14(3):241-50, 3/2007.
11. Serman DH, Recio A, Carroll RG, Gillespie CT, Haas A, Vachani A, Kapoor V, Sun J, Hodinka R, Brown JL, Corbley MJ, Parr M, Ho M, Pastan I, Machuzak M, Benedict W, **Zhang XQ**, Lord EM, Litzky LA, Heitjan DF, June CH, Kaiser LR, Vonderheide RH, Albelda SM,
12. Kanther M. A phase I clinical trial of single-dose intrapleural IFN-beta gene transfer for malignant pleural mesothelioma and metastatic pleural effusions: high rate of antitumor immune responses. *Clin Cancer Res* 13(15 Pt 1):4456-66, 8/2007.
13. Pirollo KF, Rait A, Zhou Q, **Zhang XQ**, Zhou J, Kim CS, Benedict WF, Chang EH. Tumor-targeting nanocomplex delivery of novel tumor suppressor RB94 chemosensitizes bladder carcinoma cells in vitro and in vivo. *Clin Cancer Res* 14(7):2190-8, 4/2008.
14. Nakamizo A, Amano T, Zhang W, **Zhang XQ**, Ramdas L, Liu TJ, Bekele BN, Shono T, Sasaki T, Benedict WF, Sawaya R, Lang FF. Phosphorylation of Thr18 and Ser20 of p53 in Ad-p53-induced apoptosis. *Neuro Oncol* 10(3):275-91, 6/2008.
15. **Zhang X**, Dong L, Chapman E, Benedict WF. Conditioned medium from ad-IFN-alpha-infected bladder cancer and normal urothelial cells is cytotoxic to cancer cells but not normal cells: further evidence for a strong bystander effect. *Cancer Gene Ther*, 7/2008.
16. Zhou J, **Zhang XQ**, Ashoori F, McConkey DJ, Knowles MA, Dong L, Benedict WF. Early RB94-produced cytotoxicity in cancer cells is independent of caspase activation or 50 kb DNA fragmentation. *Cancer Gene Ther* 16(1):13-19, 01/2009, 1/2009.
17. Fisher MB, **Zhang XQ**, McConkey DJ, Benedict WF. Measuring soluble forms of extracellular cytokeratin 18 identifies both apoptotic and necrotic mechanisms of cell death produced by adenoviral-mediated interferon alpha: possible use as a surrogate marker. *Cancer Gene Therapy* 16(7):567-572. e-Pub 2/2009. PMID: PMC2906639.
18. **Zhang XQ**, Dunner K, Benedict WF. Autophagy is induced by adenoviral-mediated interferon alpha treatment in interferon resistant bladder cancer and normal urothelial cells as a cell death protective mechanism but not by the bystander factors produced. *Cancer Gene Ther* 17(8):579-584, 8/2010. e-Pub 5/2010. PMID: PMC2906639.
19. **Zhang XQ**, Yang Z, Benedict WF. Direct gene transfer of adenoviral-mediated interferon  $\alpha$  into human bladder cancer cells but not the bystander factors produced induces endoplasmic reticulum stress-related cytotoxicity. *Cancer Gene Ther* 18(4):260-264, 4/2011. e-Pub 12/2010.
20. Yang Z, **Zhang XQ**, Dinney CN, Benedict WF. Direct cytotoxicity produced by adenoviral-mediated interferon  $\alpha$  infection in interferon resistant cancer cells Involves ER stress and caspase 4 activation. *Cancer Gene Therapy*. *Cancer Gene Ther* 18(9):609-616, 9/2011. e-Pub 6/2011.
21. Akli S, **Zhang XQ**, Bondaruk J, Tucker SL, Czerniak PB, Benedict WF, Keyomarsi K. Low molecular weight cyclin E is associated with p27-resistant, high-grade, high-stage and invasive bladder cancer. *Cell Cycle* 11(7):1468-1476, 4/2012. e-Pub 4/2012. PMID: PMC3350882.
22. William F. Benedict, Mark Fisher, Xin-qiao Zhang, Zhibo Yang, Mark F. Munsell, and Colin N.P. Dinney. *Use of monitoring levels of soluble forms of cytokeratin 18 in the urine of patients with superficial bladder cancer following intravesical Ad-IFN $\alpha$ /Syn3 treatment in a Phase I study*. *Cancer Gene Ther*. 2014 March ; 21(3): 91–94. doi:10.1038/cgt.2014.
23. Arlene Siefker-Radtke, **Xin-qiao Zhang**, Charles C Guo, Yu Shen, Kathleen F Pirollo, Sharjeel Sabir, Chris Leung, Cindy Leong-Wu, Chi-Ming Ling, Esther H Chang, Randall E Millikan and William F Benedict *A Phase I Study of a Tumor-targeted Systemic Nanodelivery System, SGT-94, in Genitourinary Cancers*. 24(8):1484–1491,2016
24. Arlene Siefker-Radtke, **Xin-qiao Zhang**, Kathleen F. Pirollo, Esther H. Chang, Chris P. Leung, Charles Guo, Randall E. Millikan and William F. Benedict *Systemic administration using targeted gene delivery with SGT-RB94 shows evidence of tumor targeting and anticancer activity: a phase I first-in-man trial*. *Cancer Res* 76(14 Suppl): Abstract nr CT059. 2016
25. M Sakellakis\*, S Ramachandran, **XQ Zhang**, C Logothetis, M Titus. Androgen-deprivation and oxidative phosphorylation inhibition pose synergistic antitumor effects in subsets of prostate tumors in intro. *ESMO Open* 3(suppl 2): A27.1-A27 2018
26. Jianfeng Chen, Omar Alhalabi, Guangchun Han, Wei-Lien Wang, **Xin-Qiao Zhang**, Jian H. Song, Lidia P. Lopez, Sumankalai Ramachandran, Anh G. Hoang, Tyrone Garnett, Matthew Campbell, Amishi Y. Shah, Jennifer Wang, Arlene O. Siefker-Radtke, Shi-Ming Tu, Mark Titus, Charles C. Guo, Gary E. Gallick, Eleni Efstathiou, William F. Benedict, Christopher J. Logothetis, Thai H. Ho, Linghua Wang and Jianjun Gao Abstract 385: MTAP gene deficiency creates vulnerability to anti-folate therapy in urothelial bladder carcinoma Proceedings: AACR Annual Meeting 2019