NAME Xinhui Wang	POSITION TITLE Associate Professor Department of Surgery
eRA COMMONS USER NAME :WANGHUI	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Anhui Medical University, Hefei, Anhui, China	M.D.	07/1982	Medicine
Anhui Medical University, Hefei, Anhui, China	M.S.	05/1988	Renal Immunology
New York Medical College, Valhalla, NY	Ph.D.	05/1999	Tumor Immunology

Positions and Honors:

1982-1985	Resident, Department of Ophthalmology & Otorhinolaryngoloty, Anqing First People's Hospital, Anqing, P.R. China
1988 - 1993	Lecture, Nanjing Railway Medical College, Department of Microbiology & Immunology, Nanjing, P. R. China
1993 – 1994	Visiting Scholar, New York Medical College, Department of Microbiology and Immunology, Valhalla, NY
1999 - 1999	Postdoctoral Fellow, New York Medical College, Department of Microbiology and Immunology, Valhalla, NY
1999–2007	Affiliate Member, Roswell Park Cancer Institute, Department of Immunology, Buffalo, NY
2007-2012	Assistant Professor, Department of Immunology, University of Pittsburgh, Pittsburgh, PA
2012–2018	Instructor, Harvard Medical School
2012-2019	Assistant Immunologist, Department of Surgery, Massachusetts General Hospital
2018-present	Assistant Professor, Harvard Medical School
2019-present	Associate Immunologist, Department of Surgery, Massachusetts General Hospital
2019-present	Director of Director of Sarcoma Translational Research Laboratory, Division of Surgical Oncology
2021-present	Associate Professor, Harvard Medical School
2013-present	Member, Cancer Center, Massachusetts General Hospital, Boston, MA

Honors, Awards, and Advisory Committees:

1996	American Association for Cancer Research Pharmacia & Upjohn Travel Award 1976-81
2010	PITT INNOVATOR AWARD 2010, The University of Pittsburgh
2011	PITT INNOVATOR AWARD 2011, The University of Pittsburgh
2012	PITT INNOVATOR AWARD 2012, The University of Pittsburgh
2016	Excellence in Innovation, Partners Health Care Innovation
2017	Excellence in Innovation, Partners Health Care Innovation
2018	Excellence in Innovation, Partners Health Care Innovation
2022	Excellence in Innovation, Partners Health Care Innovation

Selected Publications (in chronological order, selected from total 102 publications and 14 publications in the last 3 years):

1. **Wang X,** Osada T, Wang Y, Yu L, Sakakura K, Katayama A, McCarthy J, Brufsky A, Chivukula M, Khoury T, Hsu D, Lyerly H, Clay T, Ferrone S. CSPG4 as a new target for antibody-based immunotherapy of triple negative breast cancer. J Natl Cancer Inst. 2010; 102:1496-1512. PMCID: 2950168
2. **Wang X,** Katayama A, Wang Y, Yu L, Favoino E, Sakakura K, Favole A, Tsuchikawa T, Silver S, Watkins SC, Kageshita T, Ferrone S. Functional characterization of an scFV antibody that immunotherapeutically targets the common cancer cell surface proteoglycan CSPG4. Cancer Res. 2011 Dec 15; 71(24):7410-22. PMID: 22021902.
3. Visus C, Wang YY, Lozano-Leon A, Ferris RL, Silver S, Szczepanski MJ, Brand RE, Ferrone CR, Whiteside S, Ferrone S, Deleo A, **Wang X.** Targeting $ALDH^{bright}$ human carcinoma initiating cells with ALDH1A1-specific CD8+ T cells. Clin Cancer Res. 2011 Oct 1; 17:6174-84. PMID:21856769
4. Wang Y, Li W, Patel SS, Cong J, Zhang N, Sabbatino F, Liu X, Qi Y, Huang P, Lee H, Taghian A, Li J, DeLeo AB, Ferrone S, Epperly MW, Ferrone CR, Ly A, Brachtel EF, **Wang X.** Blocking the formation of radiation–induced breast cancer stem cells. Oncotarget. 2014;5 3743-55, 2014. PMID: 25003837
5. Wang X, Wang Y, Gu J, Zhou D, He Z, **Wang X**, Ferrone **S**. ADAM12-L confers acquired 5-fluorouracil resistance in breast cancer cells. Sci Rep 7(1):9687, 2017. PMID: 28852196
6. Cai L., Michelakos T., Ferrone C.R.˙ Zhang L., Deshpande V., Shen Q., DeLeo A.B., Yamada T., Zhang G., Ferrone S˙, **Wang X.** Expression status of folate receptor alpha is a predictor of survival in pancreatic ductal adenocarcinoma. 2017: Oncotarget. 6;8(23):37646-37656. PMID: 28430580
7. Cong J˙, Wang Y, Zhang X. (co-first authors), Zhang N, Liu L, Soukup K˙, Michelakos T., Hong T., DeLeo A., Cai L., Sabbatino F˙, Ferrone S., Lee H., Levina V˙, Fuchs B˙, Tanabe K˙, Lillemoe K˙, Ferrone C,**Wang X.** A novel chemoradiation targeting stem and nonstem pancreatic cancer cells by repurposing disulfiram. 2017: Cancer Lett. 28; 409:9-19. PMID:28864067

8. Cai L, Michelakos T, Yamada T, Fan S, **Wang X,** Schwab JH, Ferrone CR, Ferrone S. Defective HLA class I antigen processing machinery in cancer. Cancer Immunol Immunother 2018: 67: 6; 999–1009. PMID: 29487978

9. Du H, Hirabayashi K, Ahn S, Kren NP, Montgomery SA, **Wang X**, Tiruthani K, Mirlekar B, Michaud D, Greene K, Herrera SG, Xu Y, Sun C, Chen Y, Ma X, Ferrone CR, Pylayeva-Gupta Y, Yeh JJ, Liu R, Savoldo B, Ferrone **S**, Dotti G. Antitumor Responses in the Absence of Toxicity in Solid Tumors by Targeting B7-H3 via Chimeric Antigen Receptor T Cells. Cancer Cell. 35(2):221; 2019.e8. doi: 10.1016/j.ccell.2019.01.002. PMID: 30753824

10. Fan S, Tian T, Chen W, Lv X, Lei X, Zhang H, Sun S, Cai L, Pan G, He L, Ou Z, Lin X, **Wang X**, Perez MF, Tu Z, Ferrone **S**, Tannous BA, Li J. Mitochondrial miRNA determines chemoresistance by reprogramming metabolism and regulating mitochondrial transcription. Cancer Res. 2019 Jan 18. pii: canres.2505.2018. doi: 10.1158/0008-5472.CAN-18-2505. [Epub ahead of print]. PMID: 30659020

11. Zhang X, Hu P, Ding S, Sun T, Liu L, Han S, DeLeo AB, Sadagopan A, Guo W and **Wang X**. Induction of autophagy-dependent apoptosis in cancer cells through activation of ER stress: an uncovered anti-cancer mechanism by anti-alcoholism drug disulfiram. Am J Cancer Res 2019;9(6):1266-128 PMID: 31285958

21. Sun T, Yang W, Toprani S, Guo W, He L, DeLeo, A, Ferrone S, Zhang G, Wang E, Lin Z, Hu P and **Wang X.** Induction of immunogenic cell death in radiation-resistant breast cancer stem cells by repurposing anti-alcoholism drug disulfiram. Cell Commun Signal. 2020; 18: 36. doi: 10.1186/s12964-019-0507-3. PMID: 32138738

22. Liu Z, Ahn, M, Kurokawa T, Ly A, Zhang G, Wang F, Yamada T, Sadagopan A, Cheng J,. Ferrone C, Liss A, Honselmann K, Wojtkiewicz G, Ferrone S, and **Wang X**. A fast, simple, and cost-effective method of expanding patient-derived xenograft mouse models of pancreatic ductal adenocarcinoma. Journal of Translational Medicine, 2020 J Transl Med 18, 255 PMID: 32580742

23. Wang K, Michelakos T, Wang B, Shang Z, B. DeLeo A, Duan Z, J. Hornicek F, Schwab JH, **Wang X**. Targeting cancer stem cells by disulfiram and copper sensitizes radioresistant chondrosarcoma to radiation. Cancer Lett. 2021 Feb 11;S0304-3835(21)00067-7. PMID:33582212.

24. Zhang Y, He L, Sadagopan A, Ma T, Dotti G, Wang Y, Zheng H, Gao X, Wang D, B. DeLeo A, Fan S, Ruochuan S, Yu L, Zhang L, Wang G, Ferrone S, and **Wang X**. Targeting radiation–resistant prostate cancer stem cells by B7-H3 CAR T cells. Mol Cancer Ther 2021;20:577–88. PMID: 33653946.

25. Yu L, Allen R, Jia L, Sun T, Isakoff SJ, Scherrer-Crosbie M, Kehlmann AM, Zheng H, Ly A, Walmsley CS, Hesler K, Varasteh AN, Pinto CJ, McLoughlin DE, Wu W, **Wang X**. An Initial Evaluation of Human Plasma cMLC-1: A Potential Protein Biomarker for Trastuzumab-Induced Cardiotoxicity, Breast Cancer Screening and Progression. Front Oncol 2022 May 3;12:809715. doi: 10.3389/fonc.2022.809715. PMID: 35592673.

26. Ahmed SG, Oliva G, Shao M, **Wang X**, Mekalanos JJ, Brenner GJ. Intratumoral injection of schwannoma with attenuated *Salmonella typhimurium* induces antitumor immunity and controls tumor growth. Proc Natl Acad Sci USA 2022 Jun 14;119(24):e2202719119. PMID: 35675425.

27. Ventin M, Cattaneo G, Maggs L, Jia J, Arya S, Ferrone S, **Wang X** and Ferrone CR . B7-H3-targeted CAR T cell activity is enhanced by radiotherapy in solid cancers. Front Oncol 2023. July 7 PMID: 13:1193963. PMID: 37483496.

28. Liu Z, Liu W, Wang W, Ma Y, Wang Y, Drum D, Cai J, Blevins H, Lee E, Shah S, Fisher PB, **Wang X**, Fang X*, Guo C*, Wang X* (*corresponding authors). CPT1A-mediated fatty acid oxidation confers cancer cell resistance to immune-mediated cytolytic killing. Proc Natl Acad Sci U S A2023 Sep 26;120(39):e2302878120

29. Wang Y, Drum DL, Sun R, Zhang Y, Chen F, Sun F, Dal E, Yu L, Jia J, Arya S, Jia L, Fan S, Isakoff SJ, Kehlmann AM, Dotti G, Liu F, Zheng H, Ferrone CR, Taghian AG, DeLeo AB, Ventin M, Cattaneo G, Li Y, Jounaidi Y, Huang P, Maccalli C, Zhang H, Wang C ,Yang J, Boland GM, Sadreyev RI, Wong L, Ferrone S, **Wang X**. Stressed target cancer cells drive nongenetic reprogramming of CAR T cells and solid tumor microenvironment. Nat. Commun. 2023:14, 5727. https://doi.org/10.1038/s41467-023-41282-x

30. Ventin M, Cattaneo G, Maggs L, Arya S, **Wang X**, Ferrone CR. Implications of High Tumor Burden on CAR T Cell Immunotherapy. A Review. JAMA Onc. Dec 2023. In press.