

## Chengfei Liu, M.D., Ph.D.

### Research/Academic Interests

Dr. Liu has extensive expertise in clinical oncology and prostate cancer research. He has identified novel resistant mechanisms and developed innovative pharmaceutical approaches to treat advanced prostate cancer patients. He has also generated a number of unique tools that have allowed him to elucidate how resistance emerges in late stage prostate cancer.

Dr. Liu's long-term research interest is to bridge the basic and clinical research that ultimately yields novel translational efforts in urologic oncology. His ideas and research will yield new paradigms for protein post translational modification and drug resistance in cancer cells, advance the understanding of cancer biology and provide opportunities for innovative cancer therapeutics. Dr. Liu's current research program focuses on understanding the mechanisms of therapy resistance and progression in lethal prostate cancer with specialized focus on drug development for the treatment of prostate cancer. Dr. Liu has interests in nuclear receptors, chaperone protein modification, ubiquitin proteasome regulation, steroid hormone biosynthesis and metabolism, clinical translational research and tumor immunology.

**Title** Assistant Professor

**Specialty** Prostate Cancer, Urologic Oncology, [Urology](#)

**Department** [Urologic Surgery](#)

**Division** Urology

**Center/Program Affiliation** [UC Davis Comprehensive Cancer Center](#)

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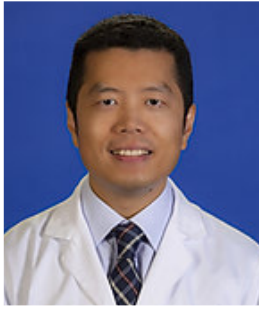
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Physician Referrals: 800-4-UCDAVIS (800-482-3284)

**Languages** Mandarin

**Education** M.D., Sichuan University, China 2005  
Ph.D., Sichuan University, China 2012

**Internships** Oncology, West China Hospital, Sichuan University, Chengdu, China 2005-2006

**Residency** Oncology, West China Hospital, Sichuan University, Chengdu, China 2009-2010



## Chengfei Liu, M.D., Ph.D.

**Fellowships** Urology/Urological Research, UC Davis, Sacramento CA 2012-2016

**Professional Memberships** American Association for Cancer Research (AACR)  
American Urological Association  
Society for Basic Urologic Research

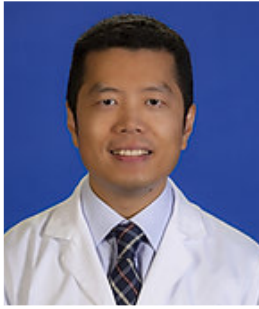
**Honors and Awards** NCI Method to Extend Research in Time (MERIT)(R37) Award, 2021  
NCI Paul Calabresi Clinical Oncology K12 Career Development Award, 2020  
UC Davis Academic Federation Travel Award, 2019  
Best Poster Award in 2017 AUA (American Urological Association) meeting, Boston MA, 2017  
Training Award, SBUR Symposium, "Omics in Urologic Research: New Frontiers Driving Precision Medicine", Dallas TX, 2014  
Best Poster Award in 2011 AUA (American Urological Association) meeting, Washington DC, 2011

**Select Recent Publications** Zhao J, Shu N, Lou W, Zhu Y, Yang JC, Armstrong C, Evans CP, Gao AC, Liu C. Cross-resistance among next generation anti-androgen drugs through the AKR1C3/AR-V7 axis in advanced prostate cancer. *Mol Cancer Ther.* 2020 Aug;19(8):1708-1718. doi:10.1158/1535-7163.MCT-20-0015. Epub 2020 May 19. PMID:32430485.

Armstrong C, Liu C, Liu L, Yang JC, Lou W, Evans CP, Gao AC. Steroid sulfatase stimulates intracrine androgen synthesis and is a therapeutic target for advanced prostate cancer. *Clin Cancer Res.* 2020;26(22):6064-6074. PMID:32928794.

Liu C, Yang JC, Armstrong C, Lou W, Liu L, Qiu X, Zou B, Lombard AP, D'Abronzio LS, Evans CP, Gao AC. AKR1C3 promotes AR-V7 protein stabilization and confers resistance to AR-targeted therapies in advanced prostate cancer. *Mol Cancer Ther.* 2019;18(10):1875-1886. PMID:31308078.

Liu C, Lou W, Yang JC, Liu L, Armstrong C, Lombard AP, Zhao R, Noel ODV, Tepper CG, Chen HW, Dall'Era M, Evans CP, Gao AC. Protein homeostasis by STUB1/HSP70 complex controls sensitivity to androgen receptor targeted therapy in advanced prostate cancer. *Nature Comm.* 2018;16;9(1):4700. PMID:30446660.



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Liu C, CM A, Lombard A, Evans CP, Gao AC. Inhibition of AKR1C3 activation overcomes resistance to abiraterone in advanced prostate cancer. *Mol Cancer Ther.* 2017;16(1):35-44. PMID: 27794047.

Liu C, Lou W, Zhu Y, Yang JC, Nadiminty N, Gaikwad NW, Evans CP, Gao AC. Intracrine androgens and AKR1C3 activation confer resistance to enzalutamide in prostate cancer. *Cancer Research.* 2015;75(7):1413-22. PMID:25649766.

Zhu Y, Liu C, Armstrong C, Lou W, Sandher A, Gao AC. Anti-androgens inhibit ABCB1 efflux and ATPase activity and reverse docetaxel resistance in advanced prostate cancer. *Clin Cancer Res.* 2015;21(18):4133-42. PMID:25995342.

Liu C, Lou W, Zhu Y, Nadiminty N, Schwartz C, Evans, CP, Gao AC. Niclosamide inhibits androgen receptor variants expression and overcomes enzalutamide resistance in castration resistant prostate cancer. *Clin Cancer Res.* 2014;20 (12):3198-210. PMID:24740322.

Liu C, Zhu, Y, Lou, W, Cui, Y, Evans, CP, Gao AC. Inhibition of constitutively active Stat3 reverses enzalutamide resistance in LNCaP derivative prostate cancer cells. *The Prostate.* 2014;74:201-9. PMID:24307657.

Liu C, Zhu Y, Lou W, Nadiminty N, Chen X, Zhou Q, Shi XB, deVere White RW, Gao AC. Functional p53 determines docetaxel sensitivity in prostate cancer cells. *The Prostate.* 2013;73: 418-27. PMID:22996738.

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