

MMI 291 Seminar Series

Current Theme: Interdisciplinary Research
Fall Quarter 2024 – CRN 39234

Friday Seminar at 12:10-1 p.m.
GBSF Auditorium, Room 1005

“Therapeutic strategies overcoming
treatment resistance in advanced
prostate cancer”

Research Bio

Professor Allen C. Gao is currently the Ralph deVere White Endowed Professor, Director of Urologic Research, Department of Urology, UC Davis Comprehensive Cancer Center. Gao received his Ph.D. in Molecular Biology at The University of Texas MD Anderson Cancer Center Houston, TX and his M.D. at Sichuan Medical College, China. Gao also serves on the Editorial Board of several journals including Prostate, American J of Pathology, PLOS One, and American J of Clinical and Experimental Urology.

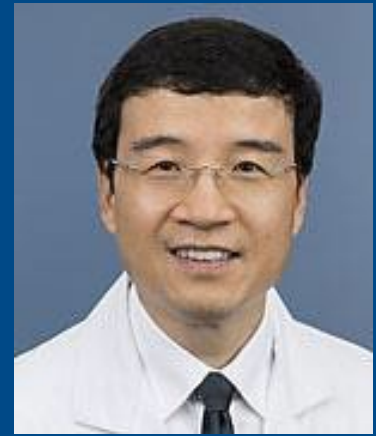
Professor Gao's research focuses on understanding the molecular changes associated with progression and treatment resistance to prostate cancer. Particular emphasis includes microRNAs, aberrant androgen receptor activation by cytokines and transcriptional factors such as Stat3 and NF- κ B, targeting cell signaling pathways (AR, IL-6 and Stat3), mechanisms of drug resistance, targets and drug discovery, and experimental therapy in prostate cancer. Gao's lab discovered novel inhibitors of androgen receptor variants (AR-V7) intracrine androgen synthesis such as AKR1C3, and identified several novel resistance mechanisms to enzalutamide/abiraterone/taxanes/PARPi including AR variants, NF- κ B/p52, IL-6/Stat3, intracrine androgens/AKR1C3, ABCB1, and IGFBP3. Gao has published over 150 peer-reviewed articles in prostate cancer. His research findings have translated into several clinical trials for treating advanced prostate cancer.

Publications

Liu, C., Lou, W., Zhu, Y., Yang, J. C., Nadiminty, N., Gaikwad, N. W., Evans, C. P. and **Gao, A. C.** (2015). “Intracrine androgens and AKR1C3 activation confer resistance to enzalutamide in prostate cancer”. *Cancer Research*, 75(7), 1413–1422. PMID: PMC4383695.

Schaaf ZA, Ning S, Leslie AR, Sharifi M, Han X, Armstrong C, Lou W, Lombard AP, Liu C, **Gao AC.** “Therapeutic Resistance Models and Treatment Sequencing in Advanced Prostate Cancer”. *Cancers (Basel)*. 2023 Nov 3;15(21):5273.doi: 10.3390/cancers15215273. PMID: 37958444.

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Director of Urologic Research
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University of California, Davis

Nov. 1, 2024
12:10 – 1 p.m.
GBSF Auditorium
Room 1005
In-person presentation

Medical Microbiology
and Immunology
School of Medicine

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We hope to see you there!