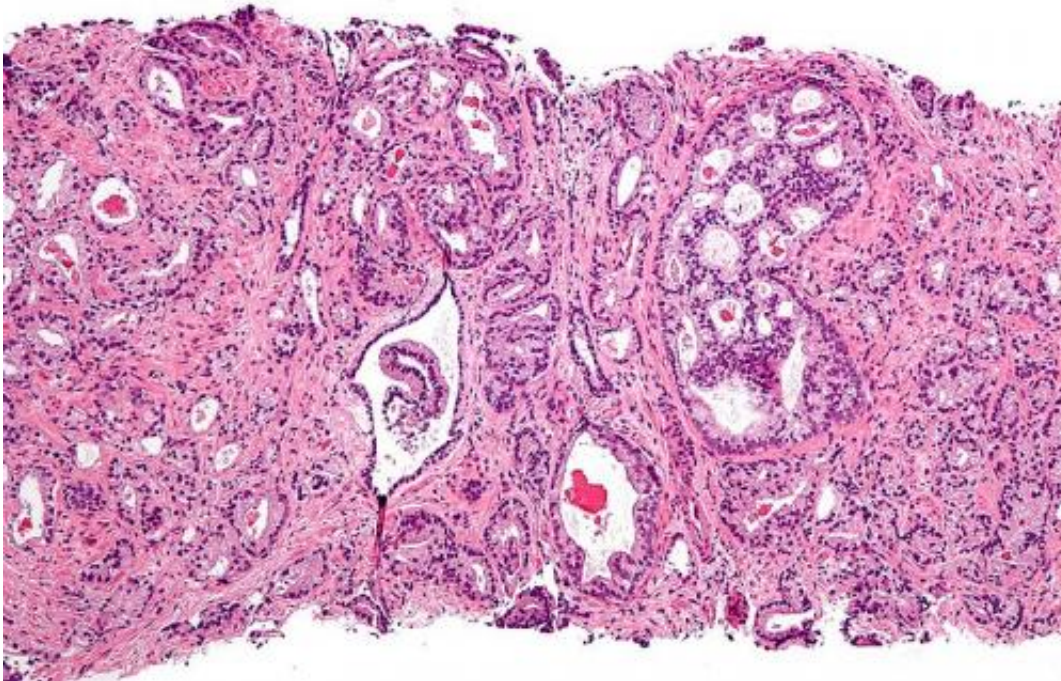


New prostate cancer treatment concept

August 26 2019, by Leigh Macmillan



Micrograph showing prostatic acinar adenocarcinoma (the most common form of prostate cancer) Credit: Wikipedia, [CC BY-SA 3.0](#)

Prostate cancer, the second leading cause of cancer-related death for men in the United States, is poorly responsive to immunotherapy. Recent clinical trials have hinted that combining immunotherapy and radiation therapy may be a powerful treatment approach for castration-resistant prostate cancer.

Austin Kirschner, MD, Ph.D., and colleagues combined radiotherapy

with immune checkpoint inhibition in a castration-resistant [prostate cancer](#) mouse model. They established prostate cancer tumors in two different locations in each mouse, treated the mice with PD-1 or PD-L1-directed immunotherapy and irradiated one of the two tumors.

The combined therapy increased median survival 70-130 percent compared to immunotherapy alone. The investigators also observed an abscopal treatment effect: the unirradiated tumor responded similarly to the irradiated tumor in the same mouse, suggesting that combination treatment may be effective for widespread metastatic disease.

The findings, reported in the *Journal for ImmunoTherapy of Cancer*, provide strong preclinical support for clinical trials of combined radiotherapy and PD-directed immunotherapy for [castration-resistant prostate cancer](#).

More information: Stephanie O. Dudzinski et al. Combination immunotherapy and radiotherapy causes an abscopal treatment response in a mouse model of castration resistant prostate cancer, *Journal for ImmunoTherapy of Cancer* (2019). [DOI: 10.1186/s40425-019-0704-z](https://doi.org/10.1186/s40425-019-0704-z)

Provided by Vanderbilt University

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