

Progress on Prostate Cancer Research

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Research

Advancements in prostate cancer research provide hope for finding a cure and lead to the discovery of new treatments to minimize the impact of a man's prostate cancer and maximize his quality of life. This regular *Hot SHEET* supplement includes some of the latest research from the Prostate Cancer Foundation (www.pcf.org).

The PCF is the world's leading philanthropic organization funding and accelerating prostate cancer research. Founded in 1993, the PCF has raised more than \$745 million and provided funding to more than 2,000 research programs at nearly 200 cancer centers and universities.

Promising Target to Inhibit Prostate Cancer Growth

Early studies find that molecule "CCS1477" slows tumor growth

Research published recently in *Cancer Discovery* (<https://cancerdiscovery.aacrjournals.org/content/early/2021/01/06/2159-8290.CD-20-0751>) describes a new therapy with promising preclinical activity that is now being tested in clinical trials for very advanced prostate cancer patients. Early studies suggest this treatment has promising activity for the significant proportion of patients with advanced prostate cancer whose tumors remain driven by the AR (androgen receptor), but no longer respond to the newer AR-targeted therapies.

Why is this so important for patients? Advanced prostate cancer that has developed resistance to hormone therapy has no cure. It's like a car engine that continues to run when the "fuel supply" (testosterone) is cut off by ADT, or even by newer androgen directed therapies. Although treatments are available, the disease often continues to progress, and more options are urgently needed for such patients.

A PCF-funded team led by Dr. Johann de Bono (Institute of Cancer Research, London and Royal Marsden NHS Foundation Trust) and Dr. Karen Knudsen (Thomas Jefferson University) has identified a promising new therapeutic target in prostate cancer (called p300/CBP), and is credentialing this target biologically and in clinical trials. p300/CBP is critical to the activity of the AR, the primary driver of prostate cancer growth.

For the first time, researchers were able to show that blocking p300/CBP with a new experimental treatment causes a decrease in AR signaling and slows tumor growth. This inhibitor molecule – referred to as CCS1477 – is currently in a phase 1 clinical trial (<https://clinicaltrials.gov/ct2/show/NCT03568656>) of patients with advanced prostate cancer. To confirm that CCS1477 is able to block AR activity in patients, the team also looked at markers of AR activity in the blood and biopsy tissues of patients in the trial. Results from the trial on the optimal dosage, safety, and preliminary efficacy of CCS1477 are not yet available.

Taken together, the results show that CCS1477 merits further study as a possible treatment for castration-sensitive and castration-resistant prostate cancer, both alone and in combination with existing medications.

For more information visit www.pcf.org, email info@pcf.org, or call 1-800-757-2873.