

Scientists find that drug stimulated immune system in prostate cancer

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In a multi-site study, Oregon Health & Science University Cancer Institute researchers have found that a drug called Ipilimumab, also known as MDX-010, works to stimulate the body's own immune system to fight prostate cancer. The drug was found to be effective in study participants with a serious type of prostate cancer -- one where the tumor has spread and was resistant to hormonal treatment and, in some cases, also to chemotherapy.

"From what we have seen, this shows that the immune system can be useful to treat prostate cancer. Results show that in some patients, the immune system can be successfully harnessed to cause cancer regressions, and that is both exciting and encouraging," said Beer, the Grover C. Bagby Endowed Chair for Cancer Research, director of the Prostate Cancer Research Program at the OHSU Cancer Institute, associate professor of medicine (hematology/medical oncology), OHSU School of Medicine.

It was confirmed that seven or 21 percent, of the 33 study participants had PSA declines of 50 percent.

The secret to how the drug works lies in a complex set of interactions in the immune system. The immune system is designed to attack foreign invaders such as viruses and bacteria, sending out a barrage of T-cells to destroy it through inflammation or direct killing.

The immune system is also thought to play a role in surveillance for the

detection and elimination of altered cells of the body, such as cancer cells. Whether a cancer progresses or not depends, in part, on the ability of the cancer to evade the immune response. One way in which cancer cells can evade the immune system is to take advantage of natural controls of the immune response that act to dial down, or down regulate, the strength of the response and allow the tumor to grow.

Source: Oregon Health & Science University

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