

Targeting B Cells in Prostate Cancer

Tech ID: 19208 / UC Case 2009-172-0

TECHNOLOGY DESCRIPTION

This invention features methods to reduce androgen-independent prostate cancer. Currently, the most common way to treat primary non-metastatic prostate cancer entails treatment with anti-androgen drugs. In addition, surgical removal or radioablation are also practiced. While these procedures are effective, a major problem is the re-emergence of androgen independent cancer a few years later. Thus, what are needed are methods to reduce (including delay and/or complete inhibition of) the re-emergence of hormone resistant cancer.

The inventors have demonstrated in mouse models that B cells remain in the tumor environment, even after castration. These B cells have been shown to assist in the re-emergence of the tumor. *In vitro*, the same phenomenon has been observed in 90 percent of the samples obtained from humans with malignant prostate cancer. By removing the B cell population, re-emergence of disease is significantly delayed. To older men (the most likely patient population to get prostate cancer), the delay of several years to re-emergence could be considered significant.

STATE OF DEVELOPMENT

A patent application has been filed on this technology.

RELATED MATERIALS

- [Ammirante M, Luo JL, Grivennikov S, Nedospasov S, Karin M. \(2010\) B-Cell-Derived Lymphotoxin Promotes Castration-Resistant Prostate Cancer. Nature ;464\(7286\):302-5.](#)

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,433,686	09/06/2016	2009-172

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OTHER INFORMATION

CATEGORIZED AS

- [Medical](#)
- [Disease: Cancer](#)

RELATED CASES

2009-172-0

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