Methods and Compositions for Treating Prostate Cancer Using DNA Vaccines

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WARF: PO5235US

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a DNA vaccine for prostate cancer treatment.

OVERVIEW

Prostate cancer is a significant health risk for men over the age of 50 and currently is a pervasive health threat with as many as 200,000 new cases diagnosed each year in the US alone. At present, there is no accepted adjuvant treatment for patients undergoing radical prostatectomy or ablative radiation therapy that has been proven to prevent progression to metastatic disease.

THE INVENTION

UW-Madison researchers have developed a new approach for inducing an immune response to a protein critical in the progression of prostate cancer. Their approach utilizes a DNA vaccine directed against the androgen receptor (AR). The invention describes the generation and administration of a DNA plasmid containing all or select portions of the AR gene in order to elicit an immune response in a mammal, including in a human.

APPLICATIONS

• Prostate cancer treatment

KEY BENEFITS

• DNA vaccines are generally regarded as safe and non-toxic
• Plasmid-based DNA vaccines may potentially stay present within their target cells, unlike protein and peptide vaccines that are rapidly cleared, thereby enhancing the immune response
• Proteins expressed from these DNA vaccines were shown to lyse prostate cancer cells in vitro
• This DNA vaccine could be combined with DNA vaccines for other prostate-specific
antigens, such as PAP, to form a multivalent cocktail.

STAGE OF DEVELOPMENT

The development of this technology was supported by the WARF Accelerator Program. The Accelerator Program selects WARF’s most commercially promising technologies and provides expert assistance and funding to enable achievement of commercially significant milestones. WARF believes that these technologies are especially attractive opportunities for licensing.

ADDITIONAL INFORMATION

Related Portfolios
WARF Accelerator Program Technologies

Tech Fields
Pharmaceuticals & Vitamin D - Oncology & hematology

CONTACT INFORMATION

For current licensing status, please contact Andy DeTienne at adetienne@warf.org or (608) 262-7859.