

Vaccine to treat and prevent prostate cancer

The CSIC has developed an immunotherapy approach based on a bifunctional compound for the treatment and prevention of prostate cancer, the second most common cancer worldwide for men and fifth most common cancer overall.

Industrial partners from the pharmaceutical industry are being sought, for collaboration through a patent licence agreement.

Offer for Patent Licensing

The vaccine stimulates the immune system to find and attack prostate cancer cells

Prostate cancer is the second most common cancer worldwide among men, and ranks third in terms of mortality. Within the 27 countries of the European Union, prostate cancer has emerged as the most frequent cancer in men, increasing rapidly over the past two decades.

Standard pharmacological and/or surgical therapy involving ablation (suppression) of androgens is initially effective, but most treated patients progressively develop the disease again and eventually die of cancer. Consequently, great efforts are being made to identify novel targets and agents for treating this disease.

In recent years, immunotherapy -the prevention or treatment of disease with substances that stimulate the immune response- has become an encouraging alternative or addition to the cancer treatment methods currently in use.

Advancing in this direction, we present a vaccine that stimulates the body's own immune defences to treat or prevent prostate cancer. This invention chemically stimulates the toll-like receptors (TLR) and successfully matches the prostate specific antigen, which is a protein expressed on the surface of cancer tumour cells, inducing an immune response.



Prostate cancer is the second most common cancer worldwide in men

Main innovations and advantages

The principal advances with regard to standard therapies are:

- The vaccine is well tolerated, with minimal toxicity compared to conventional chemotherapy and targeted molecular therapies. Stability of the vaccine in human serum shows promise for medical use.
- High specificity towards prostate cancer cells.
- Long-lasting efficacy due to the establishment of immunological memory.
- Affordable scale-up synthesis in a short time.
- Currently, there is no prostate cancer vaccine on the market.

Patent Status

Priority patent application filed, suitable for international extension

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