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NANOCONJUGATES FORMED BY DENDRITIC MOLECULES AND PEPTIDES AS ANTITUMOR AGENTS AGAINST ADVANCED PROSTATE CANCER

Patent
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Code

BIO_UAH_28

Application areas

- Biological Sciences, Health and Pharman

Type of Collaboration

- Technical cooperation
- License agreement
- Commercial agreement with technical assistance

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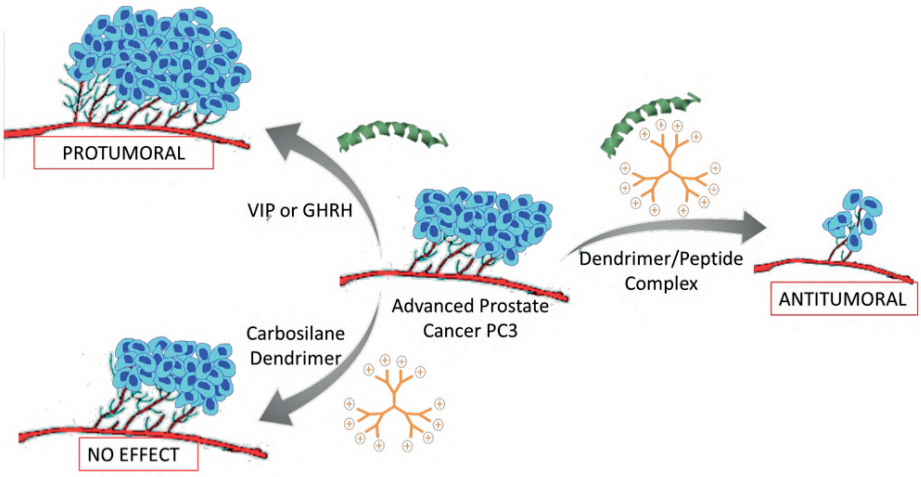

ABSTRACT

The treatment of advanced prostate cancer is nowadays only palliative. In this stage, it is androgen-independent and, unfortunately, is even favored by several human neuropeptides, as vasoactive intestinal peptide (VIP) and growth hormone-releasing hormone (GHRH). The present invention provides the preparation of active nanoconjugates against advanced prostate cancer and to prevent metastasis.

These systems are formed by dendritic molecules and neuropeptides. Preferably, the dendritic macromolecules are of carbosilane structure, mainly with cationic functions in the periphery, and the neuropeptides are of the glucagon / secretin family, mainly VIP, GHRH and PACAP.

The present invention also relates to the biomedical uses of the peptide/dendritic molecule combinations, preferably for the development of drugs for the treatment of advance prostate cancer. However, other types of cancers are not excluded.

ADVANTAGES AND INNOVATIONS

- The properties of nanoconjugates allow treating tumor cells of advance prostate cancer.
- Dendritic systems can be used as transporters of drugs or antitumor nucleic acids due to their ability to be absorbed "in vivo" in tumor zones and to internalize the treatment in cancer cells.
- The dendrimer also remains in the tumor zone without returning to the bloodstream.
- The necessary development, for the commercial exploitation of this patent, does not entail a high technical difficulty.