

Technology Offer

Nanoconjugates formed by dendritic molecules and peptides as antitumor agents against advanced prostate cancer.

Summary

A Research Group of a Spanish university presents a new invention that refers to the formation of nanoconjugates with antitumor activity, mainly against advanced prostate cancer. The research group seeks companies and research institutions from the Biomedicine, Pharmaceutical, and Health sector, to establish licensing agreements, cooperation agreements or commercial agreements with technical assistance.

Expiration Date 03 November 2019
Reference TOES20181015003

Details

Description

The spanish research group presents an invention focused on the preparation of active nanoconjugates against advanced prostate cancer and to prevent metastasis.

The formation of the nanoconjugates is carried out by mixing in solution, preferably aqueous in the presence or absence of buffer, the dendritic molecules and the corresponding peptides.

These systems are formed by dendritic molecules (dendrimers and dendrons) 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. These nanoconjugates are formed by combining the dendritic molecule and the corresponding peptide in the necessary proportion.

The present invention also relates to the biomedical uses of the peptide / dendritic molecule combinations.

Preferably this invention is for the development of drugs for the treatment of prostate cancer. However, other types of cancers are not excluded. Examples of pharmaceutical preparations include any solid composition (tablets, pills, capsules, granules, etc.) or liquid (gels, solutions, suspensions or emulsions) for oral, nasal, topical or parenteral administration.

The research group seeks for companies and research institutions from the Biomedicine, Pharmaceutical and Health sector, to establish licensing agreements, cooperation agreements or commercial agreements with technical assistance.

Advantages and Innovations

- The properties of nanoconjugates allow treating tumor cells when they have already invaded the area of the gland (prostate).
- Both dendrimers and dendrons allow concentrating a large number of functional groups producing a unique effect, different from that could be find in these same groups if they were acting individually.

- The main application of the patented compounds lies in their antitumor activity, preferably against advanced 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.

Stage of Development

Under development/lab tested

IPR Status

Patent(s) applied for but not yet granted

Comment Regarding IPR status

The patent has been requested to the OEPM with reference P201700069.
Nothing similar has been found in patent databases or in the scientific literature consulted.

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Dissemination

Relevant Sector Groups

Healthcare

Client

Type and Size of Organisation Behind the Profile

University

Ref: TOES20181015003

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

The research group seeks for companies and research institutions from the Biomedicine, Pharmaceutical and Health sector, to establish licensing agreements, cooperation agreements or commercial agreements with technical assistance.

Companies are sought preferably to exploit the results of this invention via commercial agreements with technical assistance and licensing agreements.

Research institutions and companies with a solid R&D background are sought to foster the technology one step forward through cooperation agreements.

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

License agreement
Commercial agreement with technical assistance
Research cooperation agreement