Receptor Targeted Delivery for Antineoplastic Agents to Breast Cancer Cells

[2018-115]

New Anti-Cancer Therapeutics

Opportunity

An entirely new class of cancer drugs with a demonstrated efficacy in targeting Triple Negative Breast Cancer (TNBC) may be acquired.

Background

TNBC constitutes 15 – 20% of all breast cancers. It is the most aggressive in relapsing within 3 – 5 years of chemotherapy in young women. Therapeutic progress in TNBC has been limited to chemotherapy in the past several decades. There is therefore a need for the development of targeted therapeutics with increased selectivity and efficacy and decreased toxicity for the treatment of those suffering from TNBC.

Technology

This is a targeted TNBC therapy formed of an antineoplastic agent and an LHRH (Leuteinising hormone release hormone) peptide derivative which has been conjugated to an anti-mitotic agent. This therapeutic drug targets LHRH receptors, which are overexpressed in 70-100% TNBCs.

The targeting and anti-mitotic agent combination will efficiently identify the target cells/tumours and prevent mitosis of the cancerous cells.

Scientific Data

Additional data and information is available at https://www.lens.org/lens/patent/WO_2020_220085_A1

Intellectual Property Status

The invention is the subject of a provisional patent application 2019901500 (WO 2020/220085 A1).

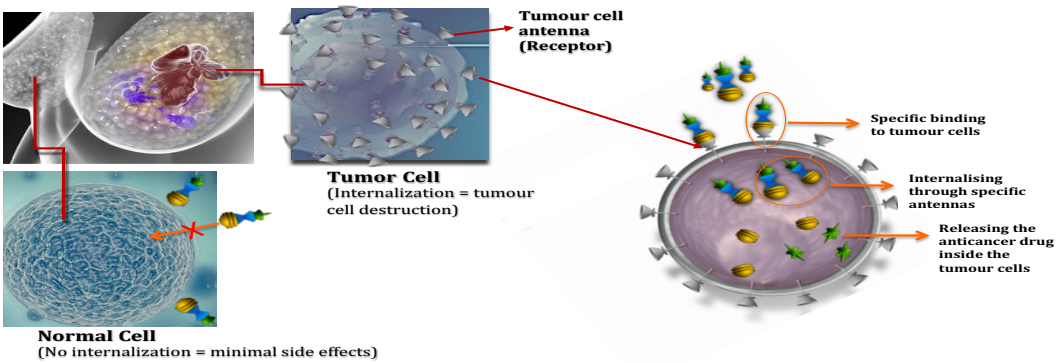
Potential Commercial Applications

- Sole therapy in the treatment of TNBC
- Therapy for multiple cancer types that over-express LHRH

Inventors

- This therapy was developed by Pegah Varamini.

Targeted therapy of Triple Negative Breast Cancer via a Trojan Horse approach



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