AGONIST OF ARYL HYDROCARBON RECEPTOR FOR USE IN CANCER COMBINATION THERAPY

The present invention provides an innovative method of potentiating the effect of anti-checkpoint thus offering to improve the treatment of a number of cancers. This invention relates to the use of an AHR agonist in combination with at least one immune checkpoint modulator in the treatment of cancer.

APPLICATION

An in vivo method using Ahr agonist for increasing the efficacy of immunotherapies with limited adverse effects.

PROBLEM ADRESSED

Cancer immunotherapy has been viewed as breakthrough in the field of cancer treatment, switching from targeting the tumor to targeting the immune system. However, only a small proportion of patients respond to these therapies, thus, there is a need to improve cancer immunotherapies by new approaches and/or by combining anti-checkpoint antibodies with other treatments. Clinical and experimental results have shown that macrophages generally play a protumoral role by stimulating angiogenesis and enhancing tumor cell invasion, motility, and intravasation. It has therefore been proposed to combine macrophages targeting therapies with standard therapies such as radiotherapy and chemotherapy.

COMPETITIVE ADVANTAGES

- Innovative method to enhance the efficacy of cancer immunotherapies.
- Limitation of adverse side effects.
- Enhanced efficacy of immunotherapy.
- Cost efficiency.
- Development of effective therapeutic strategies.

AhR agonist (I3C) improves the efficacy of anti-PD1 treatment in tumor-bearing mice.
**DEVELOPMENT STATUS**

The combination leads to a drastic and sustained improvement of survival in vivo and in vitro. The next ongoing step is to further characterize the molecular mechanism of action.

**IP STATUS & OWNERS**


**WHAT ARE WE LOOKING FOR?**

Seeking parties interested in **licensing** or **collaborative research** to co-develop, evaluate or commercialize this method of a combination therapy of AhR agonist and immunotherapy.

**PUBLICATIONS**


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