

ABSTRACT

The present invention relates to the use of *Clostridium ghonii* in combination with pembrolizumab in cancer therapy. It is found for the first time in the present invention that

5 *Clostridium ghonii* in combination with pembrolizumab can improve the efficacy thereof against colon cancer, while also reducing the dose of pembrolizumab, which is highly efficient and low toxicity. Oncolysis with *Clostridium ghonii* can affect the immunogenicity of TME in various ways, so that TME is changed into an immune activation state from an immunosuppression state while the immunosuppressive TME is regulated, breaking through the immunological tolerance.

10 Approximately 20% of mouse tumor tissues are thoroughly removed by means of combining spores of *Clostridium ghonii* with pembrolizumab under optimal combination conditions, expanding the scope of benefits of the treatment of tumor patients with PD-1 antibodies, and also even providing efficacy for patients for which treatment with PD-1 antibodies has failed.

15 No figure for publication