Targeted Therapies to Prevent Recurrence /Progression of Melanoma and Colorectal Cancer

Published date: June 26, 2012

Technology description

Background

The level of T cell infiltration into the tumor has been shown to be a strong prognostic marker of the survival of cancer patients with melanoma and, just recently, with colorectal cancer. The level of T cell infiltration shows the strongest correlation with the expression of specific combinations of chemokines. However, the specific chemokine combinations remain unclear and no study has yet addressed the possibility of enhancing the efficacy of cancer immunotherapy by modulating the pattern of chemokines at tumor sites, to facilitate the tumor entry of the effector-type T cells induced by vaccines.

Technology Description

This invention provides for therapies effective for the treatment of either melanoma or colorectal cancer. These methods include the administration of a therapeutically effective amount of an agent that increases IP-10 production. A combination of a therapeutically effective agent that selectively increases IP-10 production (or IP-10 itself) with an effective amount of a Toll-like receptor (TLR) agonist can be used to prevent or treat melanoma. A combination of an effective agent that increases IP-10 activity (or IP-10 itself), with a therapeutically effective amount of a prostaglandin synthesis inhibitor can be used to treat or prevent recurrence of colorectal cancer.

Application area

1. Treatment to prevent metastasis of melanoma and/or colon cancer
2. Prevents recurrence
3. Adjuvant for chemotherapy, immunotherapy, or personalized therapy

Advantages

1.Non-invasive

2. Combination treatment targets specific cancer types
3. Therapy increases efficacy of chemotherapy, immunotherapy, or personalized therapy

Institution

University of Pittsburgh

Inventors

Pawel Kalinski