

<http://www.cpmc.org/professionals/research/programs/science/cannabidiolarticles.html>

Recent Research on Cannabinoids

Clinical trials with cannabinoids

Thank you for your interest in our research. Unfortunately, we are still trying to initiate clinical trials in order to test cannabidiol in humans for the direct treatment of metastatic cancer. We expect to first focus on breast and brain cancer. We will periodically update this link as we progress toward a clinical trial.

Additional information

Cannabinoids are being used in clinical trials in the US and other countries for indications other than the direct treatment of cancer.

You can find out the details about these trials by visiting <http://www.cancer.gov/clinicaltrials> Opens new window or <http://apps.who.int/trialsearch/> Opens new window Use the key word cannabinoids. These sites are also a wonderful resource for finding additional novel trials that focus on treating cancer.

At this point, there is no clinical evidence demonstrating cannabinoids/cannabis can slow cancer progression but the preclinical data in culture and in mouse models of cancer show the compounds could slow the progression of many types of cancer. There are however multiple clinical studies with cancer patients that show that cannabinoid compounds and cannabis can be used palliatively to reduce nausea and pain, and increase appetite.

In preclinical models of brain cancer, cannabinoids were most efficacious when given in combination with temozolomide—a common first-line agent used to target brain cancer. Based on the data, it would be expected that cannabinoids would need to be combined with a first-line agent in order to see the most efficacy in a clinical setting. Recent publications using preclinical models suggest this type of enhancement of drug activity occurs in other cancers when cannabinoids are combined with first-line agents.

We targeted breast cancer cells that expressed high amounts of the protein Id-1. CBD is highly effective at turning off this specific gene that controls breast cancer metastasis. In addition to directly controlling cancer metastasis, turning off Id-1 has also lead to enhanced activity of first-line agents in preclinical models of cancer.

References

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Recent Research

Cannabidiol as a novel inhibitor of Id-1 gene expression in aggressive breast cancer cells

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Publications

- McAllister SD, Murase R, Christian RT, Lau D, Zielinski AJ, Allison J, Almanza C, Pakdel A, Lee J, Limbad C, Liu Y, Debs RJ, Moore DH, Desprez PY. Pathways mediating the effects of cannabidiol on the reduction of breast cancer cell proliferation, invasion, and metastasis. [Breast Cancer Res Treat. 2011 Aug;129\(1\):37-47. Epub 2010 Sep 22.](#)
- McAllister SD, Christian RT, Horowitz MP, Garcia A, Desprez P. *Cannabidiol as a novel inhibitor of Id-1 gene expression in aggressive breast cancer cells.* [Molecular Cancer Therapeutics 6, 2921-2927, November 1, 2007.](#)