

Nonconfidential Summary Disclosure



UM 8880: Isolation of Pure Cannabinoids from Cannabis

THE TECHNOLOGY

Researchers in the National Center for Natural Products Research at the University of Mississippi have developed a scalable, efficient and economic processes to produce THC and CBD from different varieties of Cannabis sativa.

THC and CBD are major constituents of the Cannabis plant that have pharmacological properties with potential therapeutic value. This technology is directed to processes for large scale isolation of these two and other cannabinoids from the Cannabis sativa plant.

This is accomplished through the discovery that certain ester derivatives of the cannabinoids are easier to separate using normal phase silica column chromatography if one prepares these derivatives before chromatography. This process is high yield, easily scalable and very economic.

Furthermore, the isolated esters are stable and can be stored for a long time until needed, and only then they can easily be hydrolyzed under mild basic conditions to generate the desired free cannabinoid, without loss.

The technology is also applicable to the isolation of other cannabinoids from Cannabis extracts.

COMPETITIVE ADVANTAGE

While delta-9-tetrahydrocannabinol is the main biologically active component in the Cannabis sativa plant, other cannabinoids such as cannabidiol (CBD) have their own activities that promise utility in the treatment of many disease conditions. THC has been approved by the Food and Drug Administration (FDA) for the control of nausea and vomiting associated with chemotherapy and for appetite stimulation of AIDS patients suffering from the wasting syndrome.

THC, however, shows other biological activities which lend themselves to possible therapeutic applications, such as in the treatment of glaucoma, migraine headaches, spasticity, anxiety, and as an analgesic. It is because of these promising biological activities of THC that marijuana has been brought into medicinal use as a drug by many states in the USA.

On the otherhand CBD, the second most studied cannabinoid, has been reported to possess several therapeutic applications. Most notably is its use in the treatment of childhood epilepsy, recently approved by the FDA.

DEVELOPMENT POTENTIAL

We are seeking a commercial partner for further development and clinical trials

PATENT STATUS

Patent Pending - Available Under NDA

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KEYWORDS

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