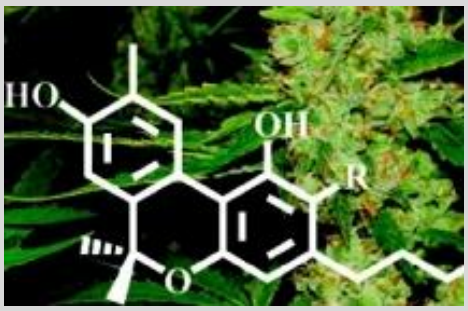
ADD-ON DRUG FOR PREVENTING ADVERSE EFFECTS OF CANNABINOID THERAPY

TEC0045

An add-on drug for preventing adverse effects (anxiety disorders) of cannabinoid therapies without altering the analgesic and anxiolytic beneficial effects of THC.



BACKGROUND

Δ9-tetrahydrocannabinol (Δ9-THC), also known as tetrahydrocannabinol (THC), is the main psychoactive substance found in the cannabis plant. THC provides medical benefits for cancer and AIDS patients by increasing appetite and decreasing nausea. It has also been shown to assist some glaucoma patients by reducing pressure within the eye and is used in the form of cannabis by a number of multiple sclerosis patients, to alleviate neuropathic pain and spasticity. THC is also an experimental therapy for cancer-induced cachexia. However, the administration of THC has several negative side-effects. One of the most common side effects is THC-induced anxiety disorder which can limit the use of said drug.

THE TECHNOLOGY

A rapamycin derivative capable of specifically inhibiting the mTOR (mammalian target of rapamycin) enzyme. mTOR is a serine/threonine protein kinase that regulates cell growth, proliferation, motility, survival, protein synthesis, and transcription. This invention relates to the use of an add-on drug for preventing and/or treating a Δ9-THC-induced anxiety disorder but this could be applied to rapamycin (sirolimus) and all the family of rapamycin derivatives such as RAD-001 (everolimus) or AP23573.

ADVANTAGES

- Administration of the add-on drug prevents the negative effects produced by the psychoactive component of cannabis Δ9-THC whereas it does not alter the analgesic and anxiolytic beneficial effects of THC.
- High potential of the cannabinoid therapies in different pathologies.

STATE OF DEVELOPMENT

Treatment of anxiogenic effect of THC had been tested in animal model (mice) with significant results. More preclinical experiments are needed before start clinical phase.

MARKET OPPORTUNITY

The cannabinoid therapy market is estimated in >200 M$ and will increase in the next years. Nowadays there are 3 cannabinoid drugs in the market (Sativex, Marinol and Cesamet), used for different pathologies as Multiple Sclerosis, Pain and Chemotherapy adverse events. Other therapeutic areas are under research and will probably be commercialized soon (prostate and breast cancer, diabetes, psychiatry, inflammation).

COMMERCIAL OPPORTUNITY

We are looking for a licensee or partner to continue the preclinical experiments and start clinical development.

CONTACT

Dr. Miquel-Àngel Serra
Lab. of Neuropharmacology
T.+34.93.316.08.66
miquel.serra@upf.edu

Dr. Mamen Carmona
Technology Transfer Unit
T.+34.93.316.09.13
mamen.carmona@upf.edu

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