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Oral Dosage Form for Immediate and Prolonged Action of Cannabinoids

Categories	Cannabinoids, Drug Delivery, Novel Carrier, Oral Formulation
Development Stage	In-vivo proof of concept
Patent Status	PCT patent application filed
Market	Improved Delivery of Cannabinoids is a real need and has increasing demand

Background

- There is a need for products containing cannabinoids for oral administration that show a prolonged effective action. Currently, Cannabinoids are administrated in capsules or sublingual spray, the drug having only short action (a peak effect up to 4 hours with a median T max up to 2.5 hours).
- Cannabinoids are very lipophilic molecules. Hence, in order to bring them to a molecular state (dissolved), solvents like vegetable oils, glycols (propylene glycol) and ethanol are used.
- We have designed a new dosage form for oral administration of cannabinoids that can be used for treatment of various ailments including pain, neurological diseases, sleep, appetite, mood, anxiety, rheumatic arthritis, inflammatory diseases, and stress.

Highlights

- Our new Oral Delivery platform for Cannabinoids does not require oils or chemical solvents.
- Eco-friendly preparation process, no need of high heating or use of solvents.
- The inactive ingredients used in this new dosage form are approved for pharmaceutical use
- The technology is adequate for various cannabinoids: CBG, CBC, CBD, THC, iso-THC, CBN, CBE, CBL, CBT and their mixtures or for plant extracts.
- In-vivo proof of concept

Our Innovation

- We evaluated the prolonged anti-nociceptive effect of cannabinoid administered orally from the new formulation in animal pain mice model as compared to untreated animals.
- The results of this experiment indicate that cannabinoid administration to mice from the new oral formulation lead to a rapid and prolonged significant analgesic effect starting from the first hour and reaching high MPE (Maximum Possible Effect) values: 77% at the first hour and maintained at 60% up to 10 hours and 49.4% at 12 hours

Key Features

- Oral Delivery of CBD
- Excipients approved for pharmaceutical use
- Eco-friendly process
- Anti-nociceptive (very efficient and prolonged pain management) effect in animal model of cannabinoid in the new oral formulation

Development Milestones

Seeking investment in new company or industrial collaboration for the development,

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