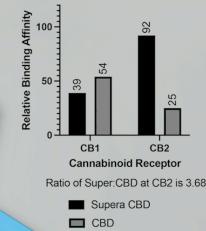
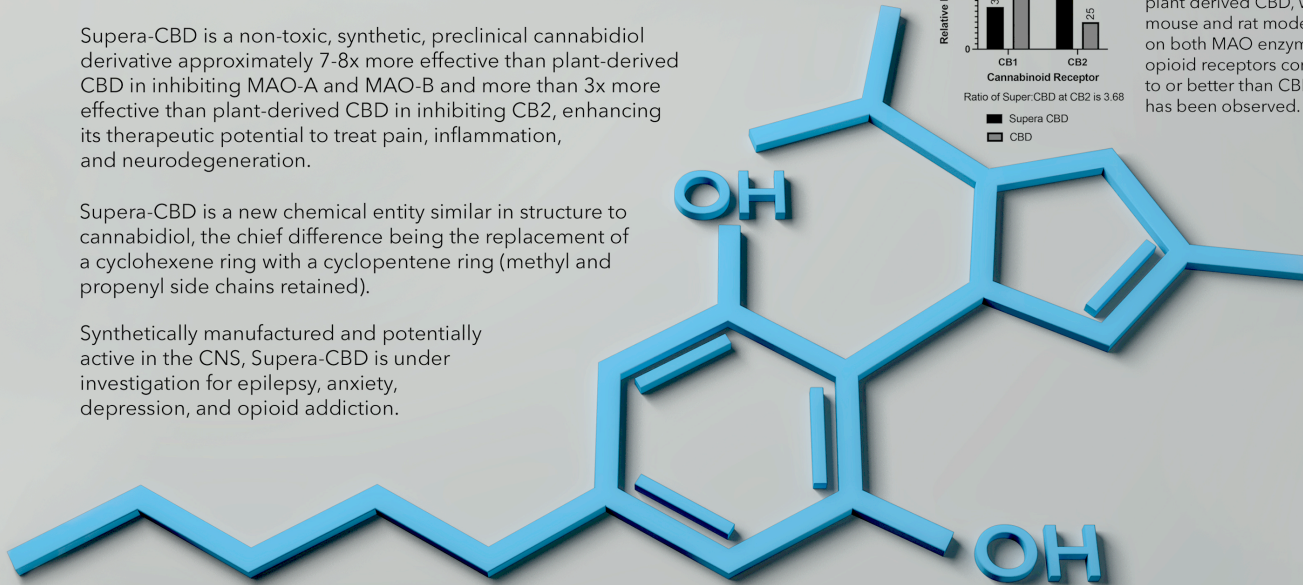


**Supera-CBD** is being developed to address anxiety, chronic pain, and seizures and is on an expected path toward human clinical trials as a therapy for epilepsy, followed by chronic pain.

Supera-CBD is a non-toxic, synthetic, preclinical cannabidiol derivative approximately 7-8x more effective than plant-derived CBD in inhibiting MAO-A and MAO-B and more than 3x more effective than plant-derived CBD in inhibiting CB2, enhancing its therapeutic potential to treat pain, inflammation, and neurodegeneration.

Supera-CBD is a new chemical entity similar in structure to cannabidiol, the chief difference being the replacement of a cyclohexene ring with a cyclopentene ring (methyl and propenyl side chains retained).

Synthetically manufactured and potentially active in the CNS, Supera-CBD is under investigation for epilepsy, anxiety, depression, and opioid addiction.



Initial studies have demonstrated a robust safety and toxicity profile, similar to plant derived CBD, with both mouse and rat models; activity on both MAO enzymes and opioid receptors comparable to or better than CBD has been observed.

Supera-CBD is well positioned to address key unmet needs in epilepsy and chronic pain

### Epilepsy

Epilepsy affects ~3-4 Mn people per year in the US and in many cases is not adequately controlled, pointing to the need for novel therapies.

- Supera-CBD is expected to ameliorate epilepsy by reducing MAO-A/B activity more than traditional CBD, potentially pointing to greater effectiveness in epilepsy.
- Epilepsy may be an attractive opportunity due to its high incidence and limited effectiveness of current therapies.
- The approval and use of Epidiolex in certain epilepsy subtypes may indicate space for improved synthetic versions of CBD.

### Chronic Pain

Chronic pain affects ~50 Mn people per year in the US, with existing therapies geared towards mild sufferers (ex. NSAIDs), or with serious side effects that can include addiction (ex. Opiates).

- Developing novel non-opiate therapies is a stated goal of multiple companies, with CBD like therapies in the running alongside other solutions.
- Supera-CBD has generated evidence that it binds to different types of opioid receptors as effectively or more so than traditional CBD, offering opportunity to treat chronic pain effectively.