

# Synthetic, Non-Scheduled, Cannabinoid for Reducing the Frequency and Severity of Seizure

Tech ID: 30051 / UC Case 2018-485-0

### **ABSTRACT**

Researchers at the University of California, Davis have developed H2CBD, a fully synthetic analog of CBD designed to treat seizures without the psychoactive effects associated with Cannabis.

# **FULL DESCRIPTION**

H2CBD is a non-Cannabis derived, fully synthetic compound that mirrors the antiepileptic benefits of cannabidiol (CBD) without the legal and abuse liabilities associated with natural cannabinoids. Unlike CBD, H2CBD cannot be converted into THC, the intoxicating compound found in Cannabis, making it a safer and more accessible option for patients with seizure disorders.

# **APPLICATIONS**

- Pharmaceuticals for seizure disorders and epilepsy.
- ▶ Alternative treatments for conditions currently addressed by CBD.
- ▶ Non-intoxicating cannabinoid therapies.
- ▶ Legal and accessible cannabinoid-based medications.
- ▶ Therapeutics for pediatric and adult epilepsy.

### FEATURES/BENEFITS

- ▶ Non-psychoactive, avoids the intoxicating effects of THC.
- ▶ Circumvents legal restrictions and cultivation impacts by not being derived from Cannabis.
- ▶ Eliminates abuse potential as it cannot be chemically converted to THC.
- ▶ Reduces seizure frequency and severity with comparable efficacy to CBD.
- ▶ Provides a new therapeutic option for treatment-resistant epilepsy.
- ▶ Navigates legal and regulatory challenges of CBD and Cannabis-derived products.
- ▶ Addresses environmental and ethical concerns related to Cannabis cultivation.
- Expands treatment options for refractory epilepsy.

### **PATENT STATUS**

Country	Туре	Number	Dated	Case
United States Of America	<b>Published Application</b>	20250152520	05/15/2025	2018-485

### CONTACT

Victor Haroldsen haroldsen@ucdavis.edu tel: 530-752-7717.



# **INVENTORS**

► Mascal, Mark J.

# OTHER INFORMATION

### **KEYWORDS**

Cannabis, Cannabinoid,

THC, Hemp, Seizures,

Anticonvulsant, CBD,

Anti-seizure, Epilepsy,

H2CBD, Non-

psychoactive,

Pharmaceuticals,

Synthetic CBD,

Therapeutic, THC

alternative

# CATEGORIZED AS

Materials &

### **Chemicals**

- Chemicals
- Other

### Medical

▶ Disease: Central Nervous System

# **PATENT INFORMATION**

JP7620984B2 ▶ Therapeutics

**RELATED CASES** 

2018-485-0

### ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ Preparation of Furan Fatty Acids from 5-(Chloromethyl) Furfural
- ► Cannabigerol (CBG) In The Treatment Of Seizures And Epilepsy
- ▶ Process for Converting Waste Biomass

**University of California, Davis** 

**Technology Transfer Office** 

1 Shields Avenue, Mrak Hall 4th Floor,

Davis, CA 95616

Tel:

© 2025, The Regents of the University of California

530.754.8649

Terms of use

techtransfer@ucdavis.edu

Privacy Notice

https://research.ucdavis.edu/technology-

transfer/

Fax:

530.754.7620