

12-2006-577 | CBD treatment for Hepatic Encephalopathy, Liver Cirrhosis, and Nonalcoholic steatohepatitis (NASH)

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Background

To date, there is no effective treatment of liver diseases with the related Hepatic-Encephalopathy symptoms. It is established that Cannabinoids/endocannabinoids and/or capsaicin or cannabidiol, improve both liver and brain function.

Hepatic-Encephalopathy occurs in:

- **30-45% of patients with cirrhosis diseases. Minimal symptoms of Hepatic-Encephalopathy occur in 20-60% of patients with liver**
- **30% of patients dying of end stage liver diseases experience significant Hepatic-Encephalopathy.**
- **NAFLD is estimated to occur in one-third of the general population in the US.**
- **Following treatments to lower ammonia production/absorption.**
- **Following using medications to counteract ammonia effect on brain cell function.**
- **Following using Devices to compensate liver dysfunction.**
- **Following Liver transplantation.**

Our Innovation:

Treatment of liver disease (Cirrhosis/steatosis) and hepatic encephalopathy with cannabidiol or capsaicin and/or cannabinoids (THC/HU308) / endocannabinoids (2-AG): We have shown in mouse experimental models that cannabinoids/endocannabinoids and/or capsaicin or cannabidiol, improve both liver and brain functions. We suggest a treatment modality based on the following mechanism/s: blocking the CB1 receptor and stimulating the CB2 receptor by 2AG or HU308 or THC (for hepatic encephalopathy) and/or the TRPV1 receptors by capsaicin and/or the 5HT1A receptors by Cannabidiol . Thus, inducing therapeutic effect which is mediated through effects in the liver and brain.

Highlights

- It has been shown to improve both liver and brain function in a mouse models of hepatic encephalopathy (in both acute and chronic models).
- Method of administration: oral, parenteral, sublingual or intranasal is yet to be determined.
- No side effects were noticed (FHF acute model)(BDL chronic model).
- No toxicity in chronic administration.

The Business Opportunity

We are presently seeking to raise 0.5M.US\$ to complete efficacy and safety studies in animal models and to Progress to preliminary human studies (safety and proof of concept) once pre-clinical safety has been determined .

Researcher's information: <https://medicine.ekmd.huji.ac.il/en/research/yosefaa/Pages/default.aspx>

Patent Status

Granted US [10166202](#)

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