

### **Ultra-low doses of tetrahydrocannabinol (THC) for cognitive deficits (Ramot)**

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Yosef Sarne, T.A.U Tel Aviv University, Medicine-Sackler Faculty, Physiology and Pharmacology

### **Ultra-low doses of THC for the treatment of cognitive deficits**

Prof. Sarne has published several studies on neuroprotection induced by ultra-low doses of THC against cognitive damage that results from various insults, including hypoxia, epileptic seizures, neurotoxicity and brain inflammation (see attached two articles).

The advantage of using ultra low doses is the lack of side effects (either mental or physical) and the avoidance of desensitization/ habituation that may require the elevation of applied doses, especially in the case of repeated applications or chronic treatment.

The conventional doses of THC (as well as of other cannabinoid drugs) that are required to induce the known cannabinoid effects in mice are 1-20 mg/kg. We have shown that X1000 lower dose (0.002 mg/kg) provide long-lasting beneficial effects.

The wide therapeutic window enables us to suggest a wide range of effective doses (10- 400ug) in humans with no cannabinoid side effects and without undergoing desensitization.

We are seeking a collaboration with a pharma company aimed at demonstrating clinical proof-of-concept. Since THC at high doses is already approved for medical treatments in humans, clinical studies with the ultra-low doses are expected to be straight forward

### **Contact for more information:**

Elisha Natan , Director BD,

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Ramot at Tel Aviv University Ltd. P.O. Box 39296, Tel Aviv 61392 ISRAEL

Phone: +972-3-6406608

Fax: +972-3-6406675