



# Liberty Leaf Announces Completion of CBD Research Study on Canine Pain Management

VANCOUVER, Aug. 20, 2018 /CNW/ - **Liberty Leaf Holdings Ltd. (CSE: LIB) (OTCQB: LIBFF) (FSE: HN3P)** ("Liberty Leaf" or the "**Company**") is pleased to announce the completion of its first CBD research trial on pain medication for dogs.

Liberty Leaf has a Collaborative Agreement with ESEV Research Development, a leading Israeli-American research and development company, for them to conduct research into the efficacy of CBD-containing products for treating specific medical conditions in pets. The project is being managed and overseen by Pharmaseed, ESEV's partner in Israel.

This is the first study of several to be conducted under the Collaborative Agreement. The study included large mixed-breed dogs, which received a proprietary CBD-infused oil formulation or placebo in the active phase of study. Oral CBD-infused oil provides the most effective means of delivery of CBD to dogs (Bartner *et al.* 2018. *Can J. Vet. Res.* 82:178-183).

The focus of this first study was on treating dogs with chronic osteoarthritic pain. Osteoarthritis (OA) is one of the most common diseases in dogs, characterized by pain, stiffness, lethargy and decreased mobility, which leads to reduction in their quality of life.

CBD offers a potential solution for both owner and pet. In fact, dogs should be able to take advantage of the pain management capabilities of CBD even more so than humans since dogs have a more extensive endocannabinoid system with which CBD can interact. This interaction helps to reduce pain and other symptoms linked to the endocannabinoid system.

## Background

Reports of cannabis use in pets have to-date been primarily observational and uncontrolled. This anecdotal evidence seems to be enough for a growing number of pet owners to use CBD to treat their pets for various conditions, including chronic pain, anxiety, and epilepsy, as well as for a range of other afflictions.

According to a March 22, 2018 press release by the American Pet Products Association (APPA), Americans spent \$69.51 billion on their pets in 2017, an amount that is projected to grow to \$72.13 billion in 2018. Of this, veterinary care accounted for \$17.07 billion in 2017, and is expected to reach \$18.26 billion in 2018.

Until the use of CBD for management of pain in dogs with OA, common treatments included the use of nonsteroidal anti-inflammatory drugs (NSAIDs), which often have limited effectiveness and also adverse and undesirable side effects.

## Study Results

Results from the ESEV-managed, randomized, placebo-controlled clinical trial demonstrated that dogs with clinically diagnosed OA receiving a daily dose of only 0.3 mg/kg of proprietary CBD-infused oil formulation for four weeks exhibited significantly reduced pain and improved functional performance. Daily CBD dosages for dogs have generally and arbitrarily been recommended in the range of 2-20 mg/kg.

"The ability to effectively manage pain with such a low CBD dosage as used in this study and over

such a short treatment period is statistically significant," said Robert Jackman, Scientific Project Manager for Liberty Leaf.

According to Jackman, of the 16 dogs included in the study, only one did not benefit from the CBD treatment. The proprietary CBD-infused oil formulation used in the study was well tolerated, with no adverse or side effects reported by dog owners.

"This project was operated in multiple locations by a few different groups of researchers and project managers," noted Golan Vaknin, Executive Director for ESEV. He commented further. "The study was conducted productively and efficiently, and we are happy with the promising results showing positive effects of CBD for chronic pain in dogs."

## **The Opportunity**

Future trials are being planned under Liberty Leaf's Collaborative Agreement with ESEV, including effective delivery options and dosing of CBD for treatment of pain in cats with OA. "We're excited about the progress of this initiative and the opportunities that it provides to Liberty Leaf in terms of being able to potentially license out our formula and/or to develop and market our own brand," said Will Rascan, President & CEO of Liberty Leaf.

## **About ESEV R&D**

Based in New York, ESEV is collaborating with Israel's leading medical centers and scientific institutions to organize and oversee clinical trials to demonstrate the efficacy of cannabis-derived compounds and assist in the development of proprietary technologies for specific medical indications and overall wellbeing.

<http://www.esevrd.com>

## **About Pharmaseed Ltd.**

Founded in 2003, Pharmaseed is Israel's largest GLP-certified pre-clinical CRO specializing in translational and regenerative studies. The company has all the necessities for NCE, biologics and medical-device development and first-in-man trials, such as safety evaluation in various animal models as well as complementary *in-vitro/ex-vivo* models and on-site human anatomy services.

Its competence lies in the pre-clinical projects, with large expertise in the following areas: Stem Cell and Cellular Therapeutics, Angiogenesis, Cancer, Inflammation, CNS, Pain, Metabolic Disorders, Toxicology and Medical Devices.

<http://www.pharmaseedltd.com>

## **About Liberty Leaf**

Liberty Leaf Holdings Ltd. is a Canadian-based, public company whose focus is to build and support a diversified portfolio of cannabis-sector businesses, including cultivation, processing, value-added CBD/THC pet products and supply-chain products within this dynamic and fast-growing sector.

Liberty Leaf's late-stage ACMPR portfolio consists of a 60% interest in Just Kush and 100% of North Road Ventures. The company has launched its Signature Cannabis Retail division, an enterprise that is expected to roll out across Canada, bringing recreational cannabis to market for consumers.

## **On Behalf of the Board**

*Will Rascan, President & CEO*

Liberty Leaf Holdings Ltd.  
Phone: 778-819-0244  
Toll Free: 1-833-LIB-LEAF (542-5323)

**Twitter: @LibertyLeafCSE**  
**Facebook: LibertyLeafCSE**

*Neither the Canadian Securities Exchange nor its Market Regulator (as that term is defined in the policies of the Canadian Securities Exchange) accepts responsibility for the adequacy or accuracy of this release.*

*This news release may contain forward-looking statements based on assumptions and judgments of management regarding future events or results. Such statements are subject to a variety of risks and uncertainties, which could cause actual events or results to differ materially from those reflected in the forward-looking statements. The Company disclaims any intention or obligation to revise or update such statements.*

SOURCE Liberty Leaf Holdings

View original content with multimedia:  
<http://www.newswire.ca/en/releases/archive/August2018/20/c6366.html>

%SEDAR: 00023830E

**For further information:** please visit <https://www.libleaf.com> or email [info@libleaf.com](mailto:info@libleaf.com).

CO: Liberty Leaf Holdings

CNW 08:30e 20-AUG-18