Emerald Health Pharmaceuticals Demonstrates Neuroprotective Activity of Novel Cannabigerol Derivatives in Huntington's and Parkinson's Disease Models

EHP-102 and other novel cannabigerol derivatives from Emerald Health Pharmaceuticals demonstrate therapeutic potential in validated animal models

SAN DIEGO, CA, July 2, 2019 – Emerald Health Pharmaceuticals Inc. (EHP or the Company), a clinical-stage company developing medicines based on cannabinoid science, presented preclinical data for its drug product candidate, EHP-102, an oral formulation of a patented cannabigerol (CBG)-derived new chemical entity (NCE), as well as other novel CBG acid (CBGA) derivatives for the treatment of Huntington's disease (HD) and Parkinson's disease (PD) at the 29th Annual Symposium of the International Cannabinoid Research Society (ICRS) in Bethesda MD, USA.

The data presented compared the in vivo activity of two of EHP's novel CBGA derivatives, CBGA-quinone (CBGA-Q) and its water soluble sodium salt (CBGA-Q-Na Salt) to EHP-102, the Company's preclinical-stage development candidate, which has previously demonstrated significant benefits in several models of PD and HD. The preclinical findings demonstrated that oral administration of EHP-102 has potential in PD and HD due to its anti-inflammatory and neuroprotective properties specific to these diseases. The CBGA derivatives also showed anti-inflammatory and neuroprotective effects, however, EHP-102 showed significantly better effects on various parameters compared to the other two molecules. The data were reported in a poster titled "Comparison of the neuroprotective activity of cannabigerol derivatives in Huntington's and Parkinson's disease models" presented by García-Martín et al.

"Patients with Huntington's disease and Parkinson's disease suffer from devastating physical and psychological symptoms," said Jim DeMesa, MD, CEO of Emerald Health Pharmaceuticals. "There is currently no cure for these diseases and so the results of the studies conducted by our scientific team and collaborators, which demonstrate the possible disease-modifying potential of EHP-102 and some of our other CBG-derivatives, are very encouraging as potential therapeutic treatments for these patients in the future."

Oral EHP-102, CBGA-Q and CBGA-Q-Na Salt all alleviated clinical symptoms and the loss of neurons, as well as inhibited the expression of proinflammatory cytokines in a HD murine model induced by 3-nitropropionic acid. Oral CBGA-Q and EHP-102 also improved the behavioral deficits in a mouse PD model induced by 6-hydroxydopamine and prevented the loss of neurons in the brain. EHP-102, however, showed statistically superior effects compared to both other molecules in several of the parameters measured in each model.

Based on the superior results of EHP-102 as compared to the other two molecules, EHP is currently advancing manufacturing and formulation work on EHP-102 in preparation for initiating the non-clinical studies required to advance to clinical development in both HD and PD.

About Parkinson's Disease

Parkinson's disease is currently an incurable neurodegenerative disorder affecting nearly ten million people worldwide. Primarily it is a disease where the nerve cells stop producing a substance called dopamine, which helps transmit impulses from the brain to the muscles. It results in tremors, slowness and stiffness, impaired balance, and rigidity of the muscles. These symptoms get worse over time. EHP-102 has shown in multiple studies the potential to produce anti-inflammatory and neuroprotective effects, thus reducing the loss of the nerves which produce dopamine, the main issue with PD.

About Huntington's Disease

Huntington's disease is a genetic disorder that causes progressive degeneration of nerve cells in the brain. It is a devastating and disabling disease that affects middle-aged people, with typical onset between the ages of 30 and 50. There are approximately 30,000 people in the U.S. with symptomatic HD and 200,000 are at-risk of inheriting the faulty gene that causes HD. There is a 50% chance that the disease will be passed to an offspring. One of the characteristic signs and symptoms of HD is involuntary (choreaform) movements. Additional symptoms include difficulty swallowing, slurred speech and choking. The cause of death is usually from secondary causes of the disease such as choking and infection. There is no curative treatment for HD. Treatment is mostly directed at symptomatic relief with suppression of the movement disorders. In addition to the data presented at ICRS, EHP-102 has previously shown the potential to affect neurogenesis (the regeneration of new nerve cells).

About Emerald Health Pharmaceuticals Inc.

Emerald Health Pharmaceuticals is developing product candidates derived from cannabinoids for the treatment of CNS, autoimmune, and other diseases. The Company has two families of new chemical entities, derived from synthetic cannabidiol (CBD) and cannabigerol (CBG), that it has modified through rational drug design to affect validated receptors and pathways pertinent to targeted diseases. Its first drug product candidate, EHP-101, is in Phase I clinical development and is focused on treating multiple sclerosis and systemic scleroderma. Its second, EHP-102, is in preclinical development and is focused on treating Huntington's disease and Parkinson's disease.

Emerald Health Pharmaceuticals is part of the Emerald Group, which comprises multiple companies focused on developing pharmaceutical, botanical, and nutraceutical products providing wellness and medical benefits by interacting with the human body's endocannabinoid system.

For more information, visit http://www.emeraldpharma.life or contact: info@emeraldpharma.life.

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To the extent statements contained in this news release are not descriptions of historical facts regarding Emerald Health Pharmaceuticals Inc. they should be considered "forward-looking statements," as described in the private securities litigation reform act of 1995, that reflect management's current beliefs and expectations. You can identify forward-looking statements by words such as "anticipate," "believe," "could," "estimate," "expect," "forecast," "goal," "hope," "hypothesis," "intend," "may," "plan," "potential," "predict," "project," "should," "strategy," "will," "would," or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes. Forward-looking statements contained in this news release include, but are not limited to, statements regarding: (i) the success

and timing of our product development activities and clinical trials; (ii) our ability to develop our product candidates; (iii) our plans to research, discover, evaluate and develop additional potential product, technology and business candidates and opportunities; (iv) the anticipated timing of clinical data availability; (v) our ability to meet our milestones; and (vi) our expectations regarding our ability to obtain and maintain intellectual property protection. Forward-looking statements are subject to known and unknown factors, risks and uncertainties that may cause actual results to differ materially from those expressed or implied by such forward-looking statements. Undue reliance should not be placed on forward-looking statements. We undertake no obligation to update any forward-looking statements. Emerald Health Pharmaceuticals' investigational drug products have not been approved or cleared by the FDA.