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Algernon Pharmaceuticals Establishes 6 hours as Optimum Treatment Period for DMT in Neuron Study

VANCOUVER, British Columbia, Nov. 01, 2021 (GLOBE NEWSWIRE) -- Algernon Pharmaceuticals Inc. (CSE: AGN) (FRANKFURT: AGW) (OTCQB: AGNPF) (the "Company" or "Algernon") a clinical stage pharmaceutical development company, is pleased to announce that it has established the optimum peak stimulation period of 6 hours for neuron outgrowth by AP-188 ("N,N-Dimethyltryptamine" or "DMT") in its pre-clinical *in vitro* study conducted by Charles River Laboratories. Algernon also confirms that the increased growth was achieved with a sub-hallucinogenic dose.

This current data set is from the second part of the Company's *in vitro* experiment designed to focus on duration of infusion needed to achieve maximal cortical neuron outgrowth. The data showed that an increase in growth of over 40% was observed in the group treated for 6 hours with 30 nM DMT, with statistical significance, when compared to control. The results from the 6-hour period were superior to other treatment time periods and doses.

The final data set from the study will focus on investigating the mechanisms related to DMT which may be causing the growth of the neurons and is expected to be completed by the end of November 2021.

Study Data Summary

In the study, rat primary cortical neurons were treated with DMT or vehicle for timepoints of 1, 6, 12, 24 and 72 hours at varying concentrations, and then allowed to grow until 72 hours total growth time had elapsed, at which point the cells were fixed, stained, and examined for neuron outgrowth. Ketamine (10 nM) was used as a positive control.

- An increase of over 40% in the mean total length of processes and branches per cell was observed in the group treated for 6 hours with 30 nM DMT compared to vehicle ($p < 0.05$ two-way ANOVA, Dunnett's multiple comparison test).
- The growth achieved with 30 nM DMT was also significantly higher than an optimized dose of ketamine.
- Significant increases in the number of processes were also observed after treatment of one hour at concentrations as low as 3 nM.

"This is Algernon's second preclinical study confirming that DMT stimulates brain cell growth at sub-psychedelic doses," said Christopher J. Moreau, CEO of Algernon Pharmaceuticals. "In addition, the data is showing that a maximum effect is seen at 6 hours exposure which would translate well for clinical use. We look forward to moving the research program on to a

Phase 1 study.”

About DMT

Algernon has established a clinical research program for the treatment of stroke focused on DMT, a known psychedelic compound that is part of the tryptamine family (other drugs in the tryptamine family include psilocybin and psilocin).

Algernon has also filed new provisional patents for new forms of DMT, in addition to formulation, dosage and method of use claims for ischemic stroke. The Company has also filed claims for combination therapy of DMT and Constraint Induced Movement Therapy (“CIMT”).

About Algernon Pharmaceuticals Inc.

Algernon is a drug re-purposing company that investigates safe, already approved drugs, and naturally occurring compounds, for new disease applications, moving them efficiently and safely into new human trials, developing new formulations and seeking new regulatory approvals in global markets. Algernon specifically investigates compounds that have never been approved in the U.S. or Europe to avoid off label prescription writing.

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Source: Algernon Pharmaceuticals