

# Algernon Explores the Use of NP-120 (Ifenprodil) as a Novel Treatment for Coronavirus

VANCOUVER, British Columbia, March 06, 2020 (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 is exploring the potential of using NP-120 (Ifenprodil) as a novel treatment for COVID-19, also known as the coronavirus. A recent independent study found that Ifenprodil significantly reduced acute lung injury (ALI) and improved survivability in an animal study with H5N1 infected mice. H5N1 is the most lethal form of influenza known to date with an over 50% mortality rate.

Based on this study, published by the American Society of Microbiology in mSystems in the December 2019 issue, the Company believes that Ifenprodil has the potential to be a front-line treatment for the most severe cases of coronavirus, and may also reduce morbidity in patients. Coronavirus currently has an overall predicted mortality rate of approximately 4%. Management's belief that Ifenprodil is a possible treatment for COVID-19 is based on historic animal studies and not on human trials.

Despite the overall mortality rate of 4% based on current data, coronavirus-infected patients experience sometimes profound pulmonary complications including lung infiltrates, opacification, and risk of adult respiratory distress syndrome. Beyond systemic steroid therapy, clinicians have few agents with which to treat these patients and Ifenprodil may offer a new and efficacious treatment option that limits inflammatory infiltrates and the resulting fibrotic responses, as suggested in its earlier animal model studies.

#### **Ifenprodil H5N1 Animal Study Background:**

A genome wide RNAi interference approach to identify genes that aid in the recovery of cell viability after H5N1 infection, lead to the identification of the NMDA receptor antagonist Ifenprodil, which when tested in an animal model of H5N1 infection showed:

- Markedly decreased leukocyte infiltration and lung injury scores in effected lungs
- Significantly ameliorated edema infected mouse lung tissue
- Significantly improved the survival of H5N1 infected mice by 40%

Study Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6906739/

The company believes these findings could be relevant for reducing the lung-associated complications of coronavirus infection.



Algernon is preparing to apply for ethics approval in Australia for Ifenprodil, for its planned phase 2 clinical trial for idiopathic pulmonary fibrosis (IPF) and chronic cough.

"The Company has begun a process to review the potential of Ifenprodil as a novel treatment option for coronavirus", said Christopher J. Moreau CEO of Algernon Pharmaceuticals. "Ifenprodil is a known, and approved safe drug that has been on the market in Japan for over 20 years and could be repurposed quickly to help in the treatment of the disease."

Algernon has filed new intellectual property rights for NP-120 (Ifenprodil) for the treatment of respiratory diseases.

## **About NP-120 (Ifenprodil)**

NP-120 (Ifenprodil) is an N-methyl-d-aspartate (NDMA) receptor glutamate receptor antagonist specifically targeting the NMDA-type subunit 2B (Glu2NB). Ifenprodil also exhibits agonist activity for the Sigma-1 receptor, a chaperone protein up-regulated during endoplasmic reticulum stress. Although the anti-fibrotic activity of Ifenprodil in IPF is not known, recent studies have suggested a link between both receptors and pathways associated with fibrosis.

NP-120 (Ifenprodil - brand name Cerocal) was initially developed by Sanofi in the 1990s in the French and Japanese markets for the treatment of circulatory disorders. The drug is genericized and sold in Japan.

## **About Algernon Pharmaceuticals Inc.**

Algernon Pharmaceuticals is a clinical stage pharmaceutical development company focused on advancing its lead compounds for non–alcoholic steatohepatitis (NASH), chronic kidney disease (CKD), inflammatory bowel disease (IBD), idiopathic pulmonary fibrosis (IPF), and chronic cough.

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