

Algernon Pharmaceuticals' NP-120 Reduced Fibrosis in an Idiopathic Pulmonary Fibrosis Study by 56% Outperforming USFDA Approved Treatments Nintedanib and Pirfenidone

Algernon to seek a USFDA Orphan Drug Designation

VANCOUVER, BC – (July 3rd, 2019) – Algernon Pharmaceuticals Inc. (CSE: AGN) (FRANKFURT: AGW) (OTCB: BTHCF) (the “**Company**” or “**Algernon**”), a clinical stage pharmaceutical development company, is pleased to announce that NP-120, its repurposed lead candidate for treatment of idiopathic pulmonary fibrosis (IPF), showed superiority in reducing fibrosis over two globally approved therapies for IPF, Pirfenidone and Nintedanib, in a well-established *in vivo* animal model study of IPF.

Data from this recent study demonstrated a statistically significant improvement in established fibrosis in a 21-day bleomycin mouse model (treatment began on Day 7):

- Pirfenidone (100 mg/kg, BID), both a positive control and comparator arm in the study, showed a 44% reduction in fibrosis vs untreated controls (not statistically significant) as measured by Trichrome staining and modified Ashcroft scoring.
- Nintedanib (40 mg/kg, QD), a second positive control and comparator arm, and NP-251 (30 mg/kg, TID) both showed a 51% reduction in fibrosis vs untreated controls ($p < 0.05$).
- **NP-120 (20 mg/kg, TID) showed a 56.0% reduction in fibrosis vs untreated controls ($p = 0.015$).**
- In an earlier experiment, NP-121, which shares the same target and similar pharmacology as NP-120, also reduced fibrosis to a similar level as NP-120 at the same dose, suggesting a class effect of the pharmacophore.
- NP-120 is a drug currently used for neurological indications in Japan, and was originally developed by a global top 10 pharmaceutical company. NP-121 is a repositioned drug that has undergone extensive Phase II and III testing.

“We have now completed two studies from an independent laboratory, confirming that NP-120 is an effective anti-fibrotic agent for IPF.” said Christopher J. Moreau, CEO of Algernon Pharmaceuticals. “We believe NP-120 could represent a novel approach to treat IPF and we look forward to advancing our lead into a Phase II clinical trial as quickly as possible to establish human efficacy. We also intend to pursue discussions with the firms responsible for the development of NP-120 and NP-121, and to seek an orphan designation with regulatory authorities.”

About IPF

Idiopathic pulmonary fibrosis, an orphan disease, is a type of chronic lung condition characterized by a progressive and irreversible decline in lung function and scarring (fibrosis) of the lungs. There is no cure for IPF and there are currently no procedures or medications that can remove the scarring from the lungs.

According to research and consulting firm GlobalData's latest report, the idiopathic pulmonary fibrosis (IPF) market will rise substantially from just over \$900 million in 2015

to \$3.2 billion by 2025, representing a projected compound annual growth rate (CAGR) of 13.6%.

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) and idiopathic pulmonary fibrosis (IPF).

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