

**Form 51–102F3**

**MATERIAL CHANGE REPORT**

**Item 1. Name and Address of Company**

Algernon Pharmaceuticals Inc. (the “Company”)  
Suite 915 – 700 West Pender Street  
Vancouver, BC Canada V6C 1G8

**Item 2. Date of Material Change**

July 3, 2019

**Item 3. News Release**

The news release with respect to the material change referred to in this report was issued by the Company on July 3, 2019 and distributed through the facilities of Stockwatch. The news release was filed on SEDAR and is available at [www.sedar.com](http://www.sedar.com).

**Item 4. Summary of Material Change**

The Company announced 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.

**Item 5.1. Full Description of Material Change**

On July 3, 2019, the Company announced 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.

**Item 5.2. Disclosure for Restructuring Transactions**

Not applicable.

**Item 6. Reliance on subsection 7.1(2) of National Instrument 51-102**

Not applicable.

**Item 7. Omitted Information**

None.

**Item 8. Executive Officers**

The following senior officer of the Company is knowledgeable about the material change and this material change report and may be contacted:

Mike Sadhra, Chief Financial Officer  
Telephone: 604-646-1553

**Item 9. Date of Report**

July 22, 2019.