

# Safety and efficacy of inhaled pirfenidone (AP01) in the ATLAS open-label extension study

Margaret L. Wilsher<sup>1</sup>, Felix A. Woodhead<sup>2</sup>, Deepthi K. Nair<sup>2</sup>, Hao Bao<sup>2</sup>, Howard M. Lazarus<sup>2</sup>, Tamera J. Corte<sup>3</sup>

1 Respiratory Services, Auckland City Hospital, Auckland, New Zealand; 2 Avalyn Pharma Inc., Seattle, WA, USA; 3 Department of Respiratory Medicine, Royal Prince Alfred Hospital and University of Sydney, Sydney, NSW, Australia



### **BACKGROUND**

- AP01 is a novel formulation of pirfenidone optimized for inhalation using the Pari eFlow nebulizer.
- The AP01-002 (ATLAS) study of AP01 in Idiopathic Pulmonary Fibrosis (IPF)<sup>1</sup> began in June 2019 and was followed by the AP01-005 open label extension (OLE) study.
- Additional subjects with IPF and with Progressive Pulmonary Fibrosis (PPF) were enrolled in the OLE study (naïve cohort).
- We report AP01 safety and efficacy in subjects out to 180 weeks

#### **NEBULIZER**

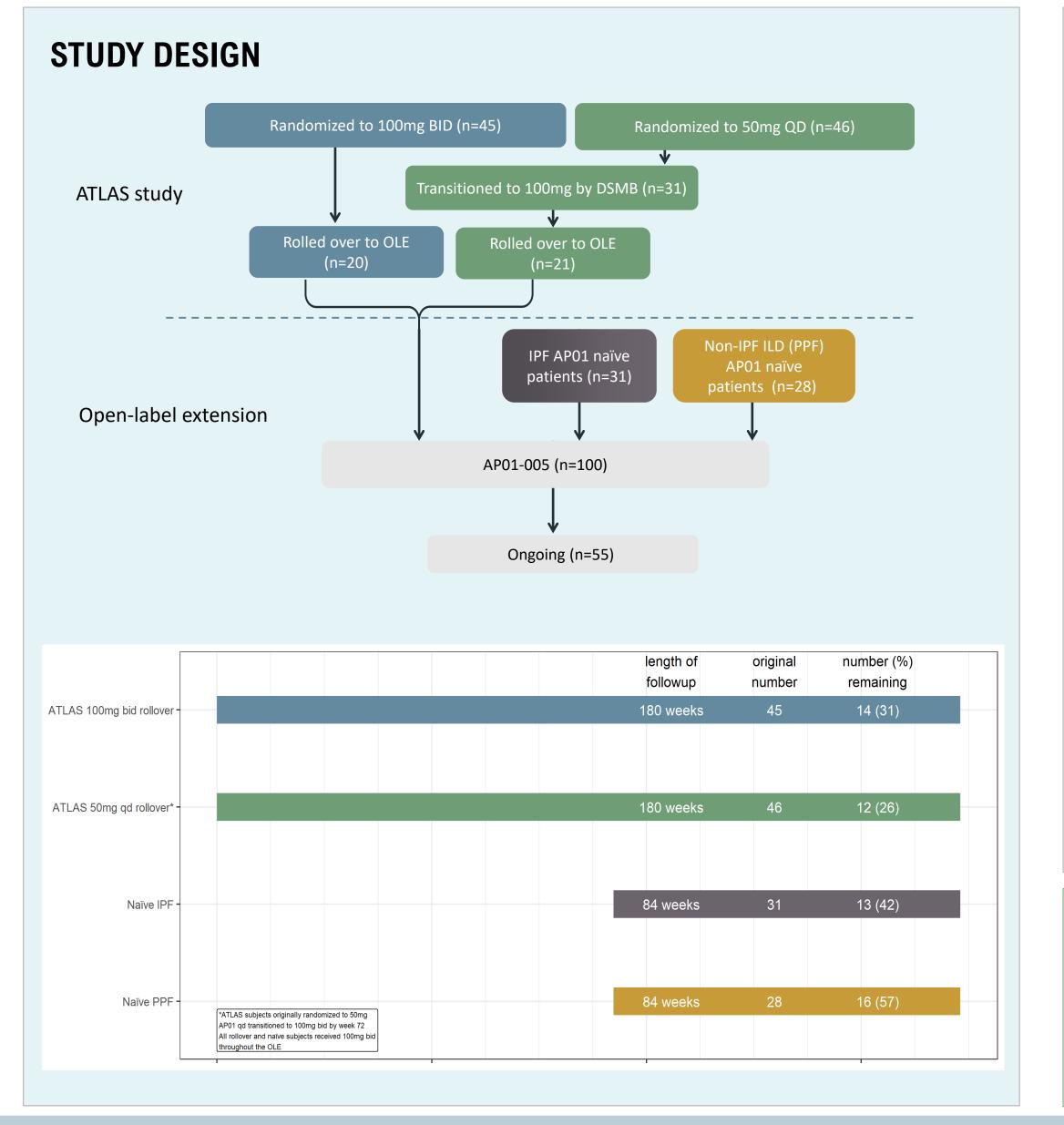
- AP01 is administered by the modified eFlow Nebulizer
- Vibrating mesh membrane delivers 8 mL over a median time of 8-9 minutes
- Comparing 100mg nebulized AP01 with 801mg oral pirfenidone
  - Alveolar Cmax is 35x higher
  - Plasma exposure is 15x lower



# **METHODS**

- The ATLAS study randomized IPF patients to 50 mg AP01 once daily (qd) or 100 mg AP01 twice daily (bid) for 24 weeks.
- At the recommendation of the DSMB, ATLAS subjects originally randomized to AP01 50 mg qd transitioned to 100 mg bid by week 72.
- All cohorts in the OLE study received 100mg bid AP01 throughout.
- Forced Vital Capacity (FVC) was recorded every 3 months.
- We report
  - the change in FVC from baseline to latest visit (calculated as the mean of the difference between the earliest and latest FVC for each subject remaining on the study)
  - the annualized decline: overall ΔFVC x (52/study length [weeks]), and
  - the percentage of subjects experiencing any adverse event.
- Results were compared with published pooled data from the 3 pivotal clinical trials of oral pirfenidone<sup>2</sup>.







## **CONCLUSIONS**

The data from this OLE suggest that AP01 shows continuing efficacy at up to 180 weeks with a safety profile superior to oral pirfenidone

AP01 is currently being investigated in the MIST PPF study, a phase 2b randomized controlled study in Progressive Pulmonary Fibrosis<sup>3</sup>

#### **REFERENCES:**

- 1. West, A. et al. Inhaled pirfenidone solution (AP01) for IPF: a randomised, open-label, dose-response trial. Thorax (2023) doi:10.1136/thorax-2022-219391
- 2. Noble, P. W. et al. Pirfenidone for idiopathic pulmonary fibrosis: analysis of pooled data from three multinational phase 3 trials. European Respiratory Journal ERJ-00026 (2015).
- 3. https://mistppfstudy.com/

