

FP-025

Product Name: FP-025

Synonyms: FP 025

Indication: asthma and COPD

Company: Foresee Pharmaceuticals

Matrix metalloproteinase-12 (MMP-12) is a key enzyme in the recruitment of inflammatory cells, and it plays a key role in developing asthma and COPD. FP-025 is a novel highly selective MMP-12 inhibitor with anti-inflammatory and anti-fibrillation activity that suggests FP-025's potential applications in the treatment of asthma and COPD.

Asthma is a chronic disease of airway inflammation. For people with asthma, the allergen and irritants in the environment may trigger the muscles around the airways tighten, the airways become swollen, and thicker mucus is produced. These reactions cause narrowed airways with limited air flow, and make patients difficult to breathe. According to the Global Initiative for Asthma (GINA), asthma affects an estimated 300 million people of all ages worldwide. The prevalence of asthma is increasing in many developing countries, and therefore imposes heavy burdens on medical expenditure.

Chronic obstructive pulmonary disease (COPD), which includes chronic bronchitis and emphysema, is a chronic inflammatory lung disease. The main cause of COPD is long-term exposure to irritants (such as cigarette smoke and air pollutant) that damage the lungs, leading to obstructed airflow from the lungs and breathing difficulties. The Global Burden of Disease (GBD) study reports a prevalence of 251 million cases of COPD globally in 2016. In addition, the World Health Organization (WHO) predicts that COPD will become the third leading cause of death worldwide by 2030.

There is no cure for asthma and COPD yet, but treatment can help ease symptoms. The treatment options include bronchodilator and inhaled corticosteroids, however the associated systemic side effects, inconsistent inhaled dosage, and inconvenient to carry the spacer make it difficult to achieve good patient compliance. There remains significant unmet medical need in both asthma and COPD.