Frontier Pharma: Chronic Obstructive Pulmonary Disease (COPD) - Identifying and Commercializing First-in-Class Innovation

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Summary

Chronic Obstructive Pulmonary Disease (COPD) is a progressive disorder associated with chronic inflammation of the airways and lungs. Persistent breathing difficulties and repeated exacerbations of COPD symptoms make the disease one of the leading causes of morbidity and the fifth-leading cause of death in the world. COPD is linked to cumulative exposure to risk factors, primarily tobacco smoke, but also environmental pollutants. The COPD marketed products landscape consists of pharmacological therapies aimed at managing the symptoms associated with COPD, although none of the available therapies have been shown to modify long-term disease progression.

The current COPD pipeline consists of 212 active products in development. Initial analysis revealed a small presence of first-in-class products, constituting 16.5% of the pipeline. In comparison to other indications, this is relatively low; however, there are some promising trends within COPD product development. The Preclinical Phase of development is the most active in terms of first-in-class products. This diminishes throughout clinical development, with only two such products being present in Phase III. However, if either of these products is approved, they would represent the first, first-in-class products to be approved for COPD since roflumilast, which was approved in 2011 by the FDA and in 2010 in the EU. Roflumilast was the first novel therapy for COPD in almost 20 years, which demonstrates the infrequency at which first-in-class products enter the COPD market. So to have two first-in-class products in Phase III and six in Phase II is a promising sign.

Scope

The COPD market has benefited from notable additions in recent years.

- Which classes of drug dominate the market?
- What additional benefits have newly approved therapies brought to market?
- How do the leading marketed therapies compare clinically?

The pipeline contains a range of molecule types and molecular targets, including those that are well established in COPD and novel, first-in-class therapies.

- Which molecular targets appear most frequently in the pipeline?
- To what degree is the pipeline penetrated by first-in-class innovation?
- Which target families consist of the most first-in-class products?

First-in-class products differ substantially in their clinical potential, based on their alignment to
disease causing pathways.
- How well are first-in-class targets aligned to known disease causing pathways?
- Which targets are specifically found in early-stage development?
- What is the industry-wide interest in these targets?
- Which are the most promising first-in-class targets in early-stage development?

There have been 59 licensing deals and 41 co-development deals pertaining to COPD products since 2006.
- Which territories show the most deal activity?
- What were the trends in deal completion by product stage of development?
- How many deals involved first-in-class products?
- Which of the first-in-class products in development are not currently involved in a licensing or co-development deal, and therefore represent investment opportunities?

Reasons to buy

This report will allow you to -
- Understand the current clinical and commercial landscape. It includes a comprehensive study of disease pathogenesis, diagnosis, prognosis and the treatment options available at each stage of diagnosis.
- Visualize the composition of the COPD market in terms of dominant molecule types and targets, highlighting what the current unmet needs are and how they can be addressed. This knowledge allows a competitive understanding of gaps in the current market.
- Analyze the COPD pipeline and stratify by stage of development, molecule type and molecular target. There are promising signs in the pipeline that the industry is seeking novel approaches to treating COPD.
- Assess the therapeutic potential of first-in-class targets. Using a proprietary matrix, first-in-class products have been assessed and ranked according to clinical potential. Promising early-stage targets have been reviewed in greater detail.
- Identify commercial opportunities in the COPD deals landscape by analyzing trends in licensing and co-development deals and producing a curated list of COPD therapies that are not yet involved in deals and may be potential investment opportunities.

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