AstraZeneca PLC

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AstraZeneca provides update on AERISTO Phase IIIb trial for

Bevespi Aerosphere in chronic obstructive pulmonary disease

AstraZeneca today announced top-line results from the AERISTO Phase IIIb trial for *Bevespi Aerosphere* (glycopyrronium/formoterol fumarate) in patients with moderate to very severe chronic obstructive pulmonary disease (COPD). In the trial, *Bevespi Aerosphere* demonstrated non-inferiority to umeclidinium/vilanterol on peak forced expiratory volume in one second (FEV1) but did not demonstrate superiority on peak FEV1 or non-inferiority on trough FEV1.

Dr Colin Reisner, Head of Respiratory, Global Medicines Development, said: "The efficacy and safety of *Bevespi Aerosphere* has been established by the Phase III PINNACLE trial programme involving more than 5,000 patients. The performance of *Bevespi Aerosphere* in AERISTO is inconsistent with previous data. A full analysis is underway to understand and characterise these findings and will be presented at a forthcoming medical meeting."

The 24-week AERISTO Phase IIIb trial was a randomised, double-blinded, double-dummy, multicentre, parallel-group trial designed to assess the efficacy and safety of *Bevespi Aerosphere* compared with umeclidinium/vilanterol. The primary endpoints were peak change from baseline in FEV1 where non-inferiority and superiority were measured and change from baseline in trough FEV1 where non-inferiority was measured. In the trial, 1,119 patients were randomised to receive either two inhalations twice a day of *Bevespi Aerosphere* (glycopyrronium/formoterol fumarate 7.2/4.8µg) via pressurised metered-dose inhaler or one inhalation once a day of umeclidinium/vilanterol 62.5/25µg via dry powder inhaler. Safety and tolerability data for *Bevespi Aerosphere* were consistent with the known profile of the medicine.

Bevespi Aerosphere is approved in the US and Canada for the long-term maintenance treatment of airflow obstruction in COPD. *Bevespi Aerosphere* is currently under review by the European Medicines Agency with a regulatory decision anticipated in the second half of 2018.

About COPD

COPD is a progressive disease which can cause obstruction of airflow in the lungs resulting in debilitating bouts of breathlessness.1 It affects an estimated 384 million people worldwide and is predicted to be the third leading cause of death by 2020.1,2 At initial diagnosis, approximately one-third of COPD patients have severe or very severe forms of the disease.3 Improving lung function, reducing exacerbations and managing daily symptoms such as breathlessness are important to the management of COPD.1 Moderate to severe COPD is typically managed through long-acting bronchodilator therapy. Despite the availability of effective long-acting bronchodilator monotherapies, many patients remain symptomatic and may require dual long-acting bronchodilator therapy.1,4

About *Bevespi Aerosphere*

Bevespi Aerosphere is a fixed-dose dual bronchodilator combining glycopyrronium, a long-acting muscarinic agonist (LAMA), and formoterol fumarate, a long-acting beta2-agonist (LABA). *Bevespi Aerosphere* is the first and only LAMA/LABA with *Aerosphere* Delivery Technology. Results from an imaging trial have shown that *Bevespi Aerosphere* effectively delivers medicine to both the large and small airways.5 *Aerosphere* Delivery Technology is also the platform for potential new medicines including PT010, AstraZeneca's triple combination of budesonide/glycopyrronium/formoterol fumarate.

About AstraZeneca in Respiratory Disease

Respiratory diseaseis one of AstraZeneca'smain therapy areas, and the Company has a growing portfolio of medicines that reached more than 18 million patients in 2017. AstraZeneca's aim is to transform asthma and COPD treatmentthrough inhaled combinations at the core of care, biologics for the unmet needs of specific patient populations, and scientific advancements in disease modification.

The Company is building on a 40-year heritage in respiratory disease and AstraZeneca's capability in inhalation technology spans pressurised metered-dose inhalers and dry powder inhalers, as well as the *Aerosphere* Delivery Technology. The company also has a growing portfolio of respiratory biologics, including *Fasenra* (anti-eosinophil, anti-IL-5rα), now approved for severe eosinophilic asthma and in development for severe nasal polyposis, and tezepelumab (anti-TSLP), which achieved its Phase IIb primary and secondary endpoints and is continuing development in the Phase III PATHFINDER clinical trial programme. AstraZeneca's research is focused on addressing underlying disease drivers focusing on the lung epithelium, lung immunity and lung regeneration.

About AstraZeneca

AstraZeneca is a global, science-led biopharmaceutical company that focuses on the discovery, development and commercialisation of prescription medicines, primarily for the treatment of diseases in three therapy areas - Oncology, Cardiovascular, Renal & Metabolism and Respiratory. AstraZeneca operates in over 100 countries and its innovative medicines are used by millions of patients worldwide.

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