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**Company Name:**

Merck & Co., Inc.

**Product Name:**

WINREVAIR™

**Compound Technical Name:**

WINREVAIR™ (sotatercept-csrk) for injection 45mg, 60mg

**Date of FDA Approval:**

May 26, 2024

**Therapeutic Categories**

Treatment for Pulmonary Arterial Hypertension (PAH)

**Indication**

WINREVAIRTM is an activin signaling inhibitor indicated for the treatment of adults with pulmonary arterial hypertension (PAH, WHO Group 1) to increase exercise capacity, improve WHO functional class (FC) and reduce the risk of clinical worsening events.

**Drug Innovation Description:**

Despite availability of existing therapies, Pulmonary Arterial Hypertension (PAH, WHO Group 1 Pulmonary Hypertension) remains a chronic, progressive, physically debilitating disease with a poor long-term prognosis and an estimated 5- to 7-year survival of approximately 66% after diagnosis. PAH symptoms can severely impact a patient’s ability to carry out normal daily activities and can have considerable negative impact on general wellbeing as well as emotional and social functioning. Management of the disease usually targets pulmonary vasculature to open the blood vessels and relieve symptoms.

WINREVAIR is the first FDA-approved activin signaling inhibitor therapy. It is believed to work by improving the balance between pro- and anti-proliferative signaling to regulate the vascular cell proliferation that underlies PAH.

In preclinical models, WINREVAIRinduced cellular changes that were associated with thinner vessel walls, partial reversal of right ventricular remodeling, and improved hemodynamics leading to reverse remodeling and restoration of vessel structure and function.

In the pivotal Phase 3 STELLAR trial WINREVAIR on top of background therapy met the primary efficacy endpoint of the change from baseline at Week 24 in 6-Minute Walk Distance (6MWD), a well-established registrational endpoint in PAH that assesses exercise capacity. In the WINREVAIR treatment group, the placebo-adjusted median increase in 6MWD was 40.8 meters (95% CI: 28, 54; p<0.001). The result was both statistically and clinically very meaningful. In addition, WINREVAIR demonstrated statistically significant and clinically meaningful improvements in eight of nine secondary outcome measures. The safety profile was manageable.

WINREVAIR was approved by US-FDA on 26-Mar-2024. The EMA Committee for Medicinal Products for Human Use (CHMP) adopted a positive opinion recommending approval on 27-June-2024.

Additional studies are ongoing in adult patients to further explore WINREVAIR treatment in patients with PAH at intermediate or high risk of disease progression or mortality (ZENITH), as well as with pulmonary hypertension due to left heart disease (WHO Group 2 PH) (CADENCE). Additionally, WINREVAIR is being investigated in pediatric patients with WHO Group 1 PAH (MOONBEAM).