NEWS RELEASE

Merck Provides New Results for VERQUVO® (vericiguat) in Patients with Chronic Heart Failure and Reduced Ejection Fraction

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Results from the Phase 3 VICTOR trial and a pooled analysis of the VICTOR and VICTORIA trials were presented today at the ESC Congress 2025 and simultaneously published in The Lancet

RAHWAY, N.J.--(BUSINESS WIRE)-- Merck (NYSE: MRK), known as MSD outside the United States and Canada, today announced results evaluating VERQUVO® (vericiguat) in adult patients with stable chronic heart failure and reduced ejection fraction (HFrEF). The Phase 3 VICTOR trial comparing the efficacy of VERQUVO to placebo in patients with HFrEF without a recent worsening heart failure event treated with guideline-directed medical therapy (GDMT) did not reach statistical significance for its primary endpoint of combined time to first event of cardiovascular death or hospitalization for heart failure. In a separate pre-specified pooled analysis of patient-level data from the complementary Phase 3 VICTOR and VICTORIA trials, VERQUVO reduced the risk of the composite primary endpoint of cardiovascular death or heart failure hospitalization across these patients with a broad range of disease severity. Results from both analyses were presented today at the European Society of Cardiology (ESC) Congress 2025 in a Hot Line session and simultaneously published in The Lancet.

VERQUVO was initially studied and approved in patients with worsening chronic heart failure and ejection fraction less than 45% following a worsening heart failure event based on the pivotal Phase 3 VICTORIA trial. Participants in the VICTOR trial represented a well-treated group of ambulatory HFrEF patients on GDMT and 47.5% of participants had no history of hospitalization for heart failure. Results showed that VERQUVO did not significantly reduce the risk of the primary composite outcome of time to cardiovascular death or hospitalization for heart failure, which occurred in 18% (n=549/3,053) of patients treated with VERQUVO compared to 19.1% (n=584/3,052) in the placebo

group (hazard ratio [HR] 0.93; 95% confidence interval [CI] 0.83-1.04; p=0.22). For the key secondary endpoints, cardiovascular death was numerically lower with VERQUVO (9.6%) compared to placebo (11.3%) (HR 0.83; 95% CI 0.71-0.97) and heart failure hospitalization occurred in 11.4% of patients receiving VERQUVO and 11.9% of patients receiving placebo (HR 0.95; 95% CI 0.82–1.10). The overall safety profile of VERQUVO in the VICTOR trial was consistent with previous clinical trials.

“By studying patients without recent heart failure hospitalizations, the Phase 3 VICTOR trial expands our understanding of VERQUVO across the full spectrum of chronic heart failure patients with reduced ejection fraction,” said Dr. Joerg Koglin, senior vice president and head of general medicine, global clinical development, Merck Research Laboratories. “Together with the previously communicated results in VICTORIA in patients with worsening chronic heart failure and ejection fraction less than 45% following a worsening heart failure event, the results today provide valuable information and add to our understanding of heart failure and VERQUVO. We are grateful to the patients and investigators for their participation in these studies and remain confident in the role of VERQUVO for its approved indication for patients with HFrEF following a recent heart failure event and with ejection fraction less than 45% based on the pivotal Phase 3 VICTORIA trial.”

The Phase 3 VICTORIA trial focused exclusively on a population with worsening chronic HFrEF at high risk for cardiovascular mortality and repeated heart failure hospitalizations. In a separate pre-specified pooled analysis across VICTOR and VICTORIA, VERQUVO’s benefit was examined in a large and broad cohort. In this pooled analysis of 11,155 HFrEF patients, VERQUVO showed a statistically significant risk reduction across the primary composite endpoint of cardiovascular death or heart failure hospitalization and its components as secondary endpoints, in a broad spectrum of patients with HFrEF. No new safety signals, beyond those reported in the individual trials, emerged in the pooled analysis.

“While the VICTOR trial did not meet its primary endpoint, the separate pooled analysis across both VICTOR and VICTORIA did demonstrate a statistically significant reduction in the primary composite endpoint of heart failure hospitalization and cardiovascular deaths in patients with heart failure and reduced ejection fraction across the disease severity,” said Javed Butler, MD, MPH, MBA, President of the Baylor Scott and White Research Institute and Professor of Medicine at University of Mississippi in Jackson, Mississippi.

The positive benefit-risk profile of VERQUVO in its approved indication in patients with HFrEF following a recent heart failure event based on the pivotal Phase 3 VICTORIA trial remains unchanged. In the U.S., VERQUVO is approved for the reduction of risk of cardiovascular death and heart failure hospitalization following a hospitalization for heart failure or need for outpatient intravenous diuretics in adults with symptomatic chronic heart failure and ejection fraction less than 45%.

About VICTOR

VICTOR (VerICiguaT in adults with ChrOnic heart failure and Reduced ejection fraction) (**NCT05093933**) was a randomized, double-blind, placebo-controlled, multicenter, event-driven Phase 3 study investigating the efficacy and safety of VERQUVO in adult patients with symptomatic chronic heart failure (New York Heart Association [NYHA] class II-IV) and a left ventricular ejection fraction (LVEF) of 40% or less. It enrolled 6,105 patients with chronic heart failure with reduced ejection fraction (HFrEF), who had not had a recent hospitalization for heart failure within 6 months or the need for outpatient intravenous diuretics within 3 months before randomization. Patients receiving contemporary guideline-directed medical therapy (GDMT), including SGLT2-inhibitors and angiotensin receptor-neprilysin inhibitor (ARNI), were randomized to receive either VERQUVO or placebo. VICTOR was the first large event-driven HFrEF trial performed in the contemporary era of quadruple foundational GDMT, in a compensated ambulatory heart failure population. Merck and Bayer AG are co-developers of the VICTOR trial. The study was executed by Merck.

About VICTORIA

VICTORIA (**NCT02861534**) was a randomized, placebo-controlled, parallel-group, multi-center, double-blind, Phase 3 study of VERQUVO versus placebo when given in combination with available heart failure therapies in patients with worsening chronic heart failure with reduced ejection fraction (HFrEF) following a decompensation event, defined as heart failure hospitalization or receiving an intravenous diuretic for heart failure without hospitalization. The primary endpoint of the study was the composite of time to first occurrence of cardiovascular death or heart failure hospitalization. Secondary endpoints included time to occurrence of cardiovascular death, time to first occurrence of heart failure hospitalization, time to total heart failure hospitalizations (including first and recurrent events), time to the composite of all-cause mortality or heart failure hospitalization, and time to all-cause mortality. The study enrolled 5,050 patients who were randomized to receive either VERQUVO once daily (titrated up to 10 mg) or placebo when given in combination with available heart failure therapies. The study, which was co-sponsored by Merck and Bayer, was conducted in collaboration with the Canadian VIGOUR Centre and the Duke Clinical Research Institute in more than 600 centers in 42 countries.

About VERQUVO (vericiguat)

VERQUVO is an oral once daily stimulator of soluble guanylate cyclase (sGC), an important enzyme in the nitric oxide (NO) signaling pathway. When NO binds to sGC, the enzyme catalyzes the synthesis of intracellular cyclic guanosine monophosphate (cGMP), a second messenger that plays a role in the regulation of vascular tone, cardiac contractility, and cardiac remodeling. Heart failure is associated with impaired synthesis of NO and decreased activity of sGC, which may contribute to myocardial and vascular dysfunction. By directly stimulating sGC, independently of and synergistically with NO, VERQUVO augments levels of intracellular cGMP, leading to smooth

muscle relaxation and vasodilation.

VERQUVO is FDA-approved to reduce the risk of cardiovascular death and heart failure (HF) hospitalization following a hospitalization for HF or need for outpatient IV diuretics, in adults with symptomatic chronic HF and ejection fraction less than 45%.

Selected Safety Information for VERQUVO (vericiguat) tablets (2.5 mg, 5 mg, and 10 mg)

WARNING: EMBRYO-FETAL TOXICITY

Females of reproductive potential: Exclude pregnancy before the start of treatment. To prevent pregnancy, females of reproductive potential must use effective forms of contraception during treatment and for one month after stopping treatment. Do not administer VERQUVO to a pregnant female because it may cause fetal harm.

VERQUVO is contraindicated in patients with concomitant use of other soluble guanylate cyclase (sGC) stimulators. VERQUVO is contraindicated in pregnancy. Based on data from animal reproduction studies, VERQUVO may cause fetal harm when administered to a pregnant woman. Advise females of reproductive potential of the potential risk to a fetus. Obtain a pregnancy test before the start of treatment. Advise females of reproductive potential to use effective contraception during treatment with VERQUVO and for at least one month after the final dose.

In a clinical trial, the most commonly observed adverse events with VERQUVO vs placebo, occurring at a frequency greater than or equal to 5%, were hypotension (16% vs 15%) and anemia (10% vs 7%).

Concomitant use of VERQUVO with PDE-5 inhibitors is not recommended because of the potential for hypotension.

There are no data on the presence of VERQUVO in human milk, the effects on the breastfed infant, or effects on milk production. Because of the potential for serious adverse reactions in breastfed infants from VERQUVO, advise women not to breastfeed during treatment with VERQUVO.

About Heart Failure with Reduced Ejection Fraction

Heart failure with reduced ejection fraction (HFrEF), formerly known as systolic heart failure, is characterized by the compromised ability of the heart to pump blood sufficiently during its contraction phase. In the U.S., approximately 6.2 million adults (20 years of age and older) have heart failure, and approximately 50% of heart failure patients have HFrEF. An observational, cohort analysis of PINNACLE registry data showed that approximately half of patients with worsening chronic HFrEF are rehospitalized within 30 days of a worsening event, and an estimated one in five patients with worsening chronic HFrEF will die within two years.

About the Worldwide Collaboration between Merck and Bayer

Since October 2014, Bayer and Merck (known as MSD outside the U.S. and Canada) have pursued a worldwide collaboration in the field of sGC modulators. The collaboration brings together two leading companies that have stated their intent to fully evaluate this therapeutic class in areas of unmet medical need. The vericiguat program is being co-developed by Bayer and MSD. MSD has the commercial rights to vericiguat in the U.S. and Bayer has the exclusive commercial rights in the rest of world. The companies share equally the costs of the development of vericiguat.

About Merck

At Merck, known as MSD outside of the United States and Canada, we are unified around our purpose: We use the power of leading-edge science to save and improve lives around the world. For more than 130 years, we have brought hope to humanity through the development of important medicines and vaccines. We aspire to be the premier research-intensive biopharmaceutical company in the world – and today, we are at the forefront of research to deliver innovative health solutions that advance the prevention and treatment of diseases in people and animals. We foster a diverse and inclusive global workforce and operate responsibly every day to enable a safe, sustainable and healthy future for all people and communities. For more information, visit **www.merck.com** and connect with us on **X (formerly Twitter)**, **LinkedIn** and **YouTube**.

Forward-Looking Statement of Merck & Co., Inc., Rahway, N.J., USA

This news release of Merck & Co., Inc., Rahway, N.J., USA (the "company") includes "forward-looking statements" within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. These statements are based upon the current beliefs and expectations of the company's management and are subject to significant risks and uncertainties. There can be no guarantees with respect to pipeline candidates that the candidates will receive the necessary regulatory approvals or that they will prove to be commercially successful. If underlying assumptions prove inaccurate or risks or uncertainties materialize, actual results may differ materially from those set forth in the forward-looking statements.

Risks and uncertainties include but are not limited to, general industry conditions and competition; general economic factors, including interest rate and currency exchange rate fluctuations; the impact of pharmaceutical industry regulation and health care legislation in the United States and internationally; global trends toward health care cost containment; technological advances, new products and patents attained by competitors; challenges inherent in new product development, including obtaining regulatory approval; the company's ability to accurately predict future market conditions; manufacturing difficulties or delays; financial instability of international economies and sovereign risk; dependence on the effectiveness of the company's patents and other protections for innovative products; and the exposure to litigation, including patent litigation, and/or regulatory actions.

The company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise. Additional factors that could cause results to differ materially from those described in the forward-looking statements can be found in the company's Annual Report on Form 10-K for the year ended December 31, 2024 and the company's other filings with the Securities and Exchange Commission (SEC) available at the SEC's Internet site (**www.sec.gov**).

Please see Prescribing Information, including Boxed Warning, for VERQUVO (vericiguat) at **https://www.merck.com/product/usa/pi_circulars/v/verquvo/verquvo_pi.pdf** and Medication Guide at **https://www.merck.com/product/usa/pi_circulars/v/verquvo/verquvo_mg.pdf**.

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