The Medicines Company

Press Release

The Medicines Company Announces Positive Topline Results from First Pivotal Phase 3 Trial of Inclisiran

- ORION-11 study met all primary and secondary efficacy endpoints with efficacy consistent with Phase 1 and 2 studies
- Safety profile of inclisiran was at least as favorable as in ORION-1 Phase 2 and ORION-3 open-label extension studies
- Detailed data will be presented during late-breaking science session at ESC Congress 2019 on Monday, September 2, 8:30 am CET / 2:30 am EDT
- The Medicines Company to host investor conference call and webcast with company management and study investigators on Monday, September 2, 2:00pm CET / 8:00am EDT

PARSIPPANY, N.J. – August 26, 2019 – The Medicines Company (NASDAQ: MDCO) today announced positive topline results from the first pivotal Phase 3 clinical trial evaluating the efficacy, safety, and tolerability of inclisiran to decrease LDL-cholesterol (LDL-C) through twice-yearly dosing. The ORION-11 study of inclisiran sodium 300 mg met all primary and secondary endpoints with efficacy consistent with findings from Phase 1 and 2 studies. The trial showed that inclisiran was well tolerated and confirmed that the safety profile was at least as favorable as that demonstrated in the ORION-1 Phase 2 and ORION-3 open label extension studies.

Detailed efficacy, tolerability and safety data from ORION-11 will be presented during a late-breaking science session at the European Society of Cardiology's ESC Congress 2019, Paris, on Monday, September 2 at 8:30 am CET / 2:30 am EDT.

"This is a momentous occasion that further reinforces our confidence in the tremendous potential of inclisiran to fundamentally change the treatment of cardiovascular disease," said Mark Timney, Chief Executive Officer of The Medicines Company. "I am proud of our clinical development team's commitment to expeditiously advance this first-in-class investigational therapy that could help millions of ASCVD patients achieve treatment goals and live longer, healthier lives."

ORION-11 is a pivotal Phase 3, placebo-controlled, double-blind, randomized study to evaluate the efficacy, safety, and tolerability of inclisiran sodium 300 mg administered subcutaneously in 1,617 patients with atherosclerotic cardiovascular disease (ASCVD) or ASCVD-risk equivalents and elevated LDL-C despite maximum tolerated dose of statin therapy (with or without ezetimibe). The international study was conducted at 70 sites in seven countries (ex-US). Each study participant received inclisiran sodium 300 mg administered as a subcutaneous injection initially, again at three months and then every six months thereafter. The primary endpoints are percentage change in LDL-C from baseline to day 510 (17 months) and time-adjusted percentage change in LDL-C from baseline after day 90 (three months) and up to day 540 (18 months). Key secondary endpoints include the mean absolute change at Day 510 (17 months), the

average absolute reduction from Day 90 (three months) up to Day 540 (18 months), and changes in other lipids and lipoproteins.

“The Medicines Company thanks the many patients, investigators and their colleagues at the clinical trial sites for their participation in ORION-11,” said Peter Wijngaard, Ph.D., Chief Development Officer of The Medicines Company. “We look forward to presenting detailed study results during the ESC Congress 2019 and also submitting data for publication in a peer-reviewed journal.”

The sequential release of topline Phase 3 data readouts for the ORION-9 and ORION-10 studies are expected to continue later in the third quarter in advance of anticipated regulatory submissions in the U.S. in the fourth quarter of 2019 and in Europe in the first quarter of 2020. Patients who have completed their respective Phase 3 studies are now enrolling into ORION-8, an open-label, long-term extension study where patients completing ORION-9, ORION-10 and ORION-11 will receive inclisiran for three years to evaluate the efficacy, safety and tolerability of long-term dosing of inclisiran.

About Inclisiran

Inclisiran, the first cholesterol-lowering therapy in the siRNA (small-interfering RNA or “sir-nah”) class, is The Medicines Company’s investigational therapy in Phase 3 clinical development to evaluate its ability to lower low-density lipoprotein cholesterol (also known as LDL-C) through twice-yearly dosing. As a siRNA, inclisiran harnesses the body’s natural process of RNA interference to specifically prevent production of the PCSK9 protein in the liver which enhances the liver’s ability to remove LDL-C from the bloodstream, thereby lowering LDL-C levels. In Phase 2 studies, inclisiran provided clinically significant LDL-C reductions greater than 50% in addition to the effects of statins and/or ezetimibe, and LDL-C reductions were sustained throughout the six-month dosing interval. Inclisiran is not yet approved for use by the FDA or any other regulatory authority. The Medicines Company obtained global rights to develop, manufacture and commercialize inclisiran under a license and collaboration agreement with Alnylam Pharmaceuticals.

Commercial Opportunity

In the U.S. alone, approximately 15.1 million people are currently treated with lipid-lowering therapies to manage cardiovascular risk. Almost 80% of high-risk ASCVD patients are not achieving LDL-C treatment goals with current therapies, and up to two-thirds of patients do not adhere to available first-line cholesterol-lowering treatments after one year. This implies a population of at least 12.7 million Americans who could potentially benefit from the investigational candidate inclisiran, the first cholesterol-lowering siRNA with the potential to deliver potent and durable lowering of LDL-C levels via twice-yearly dosing that can help address two critical unmet needs – additional LDL-C lowering and poor adherence to therapy.

About The Medicines Company

The Medicines Company (NASDAQ: MDCO) is a biopharmaceutical company with a singular, relentless focus on addressing the greatest global healthcare challenge and burden today – cardiovascular disease. Our purpose is to halt the deadly progression of atherosclerosis and the cardiovascular risk created by high levels of LDL-C. The Company is headquartered in Parsippany, New Jersey. For more information, please

visit www.themedicinescompany.com and follow us on Twitter @MDCONews and LinkedIn.

Forward-Looking Statements

Statements contained in this press release that are not purely historical, including, but not limited to, statements about the Company, the proposed offering described herein and the use of proceeds therefrom, are forward-looking statements for purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995. Without limiting the foregoing, the words “believes,” “anticipates,” “plans,” “expects,” “should,” “could,” and “potential,” and similar expressions, are intended to identify forward-looking statements. These forward-looking statements involve known and unknown risks and uncertainties that may cause the Company’s actual results, levels of activity, performance or achievements to be materially different from those expressed or implied by these forward-looking statements. Important factors that may cause or contribute to such differences include the ability of the Company to effectively develop inclisiran; whether inclisiran will advance in the clinical trials process on a timely basis or at all, or succeed in achieving its specified endpoints; whether the Company will make regulatory submissions for inclisiran on a timely basis; whether its regulatory submissions will receive approvals from regulatory agencies on a timely basis or at all; the extent of the commercial success of inclisiran, if approved; the strength, durability and life of the Company’s patent protection for inclisiran and whether the Company will be successful in extending exclusivity; and such other factors as are set forth in the risk factors detailed from time to time in the Company’s periodic reports and registration statements filed with the SEC, including, without limitation, the risk factors detailed in the Company's Quarterly Report on Form 10-Q filed with the SEC on July 24, 2019. The Company specifically disclaims any obligation to update these forward-looking statements.