Amgen Announces Evolocumab (AMG 145) Results From First 52-Week Study Of A PCSK9 Inhibitor To Reduce LDL Cholesterol

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Data Presented at American Heart Association Scientific Sessions 2013 and Simultaneously Published in Circulation

THOUSAND OAKS, Calif., Nov. 19, 2013 /PRNewswire/ -- Amgen (NASDAQ:AMGN) today announced results from the Open Label Study of Long TERm Evaluation Against LDL-C (OSLER) trial, a long-term controlled 52-week safety and efficacy study, that showed monthly treatment with evolocumab (AMG 145), an investigational fully human monoclonal antibody that inhibits PCSK9, a protein that reduces the liver's ability to remove low-density lipoprotein cholesterol (LDL-C), or "bad" cholesterol, from the blood[1], was not associated with a major increase in adverse events (AEs) versus standard of care (SOC) and produced mean LDL-C reductions of 52 percent in combination with SOC in patients with high cholesterol. These data from the first 52-week study of a PCSK9 inhibitor were presented for the first time today in a Clinical Science: Special Reports session at the American Heart Association (AHA) Scientific Sessions 2013 in Dallas and simultaneously published in *Circulation*.

According to the Centers for Disease Control and Prevention, more than 71 million American adults have high LDL-C.[2] Elevated LDL-C is recognized as a major risk factor for cardiovascular (CV) disease, which is the number one cause of death worldwide, claiming more lives each year than cancer, chronic lower respiratory disease and accidents combined.[3-5]

"Phase 2 findings from OSLER, the first reported 52-week evaluation of a PCSK9 inhibitor, are encouraging and suggest evolocumab may be a promising option to treat hyperlipidemia in a range of at-risk patients," said Sean E. Harper, M.D., executive vice president of Research and Development at Amgen. "We look forward to Phase 3 results from our PROFICIO clinical program evaluating the safety and efficacy of two distinctive dosing options of evolocumab in a range of at-risk patient populations."

OSLER is an ongoing open-label extension study evaluating the long-term safety and efficacy of evolocumab in patients with high cholesterol. In the first year, patients were randomized 2:1 to receive evolocumab and SOC or SOC alone.

"Many patients with high cholesterol struggle to adequately reduce their LDL-C, a significant contributor to cardiovascular disease," said Michael Koren, M.D., of the Jacksonville Center for Clinical Research. "The results from the OSLER study are encouraging as evolocumab may offer a potential treatment option for patients who cannot control their cholesterol levels."

Adverse events occurred in 81.4 percent of patients treated with evolocumab and SOC and in 73.1 percent of the SOC group. The five most common AEs in the evolocumab and SOC group compared to the SOC group were nasopharyngitis (12.2 percent vs. 9.8 percent), upper respiratory tract infections (7.7 percent vs. 7.6 percent), influenza (7.1 percent vs. 5.2 percent), arthralgia (6.9 percent vs. 4.3 percent), and back pain (6.5 percent vs. 5.4 percent). Other AEs that were reported included muscle-related events (9.2 percent vs. 9.8 percent), elevated liver function tests (1.8 percent vs. 1.6 percent), and elevated creatine kinase (1.0 percent vs. 1.9 percent) for patients treated with evolocumab and SOC compared to SOC alone, respectively. Serious AEs occurred in 7.1 percent of patients treated with evolocumab and SOC and 6.3 percent of the SOC group.

In the OSLER clinical trial, subcutaneous monthly treatment with evolocumab in combination with SOC resulted in a significant LDL-C decrease versus SOC alone in patients who previously completed one of four 12-week Phase 2 studies of evolocumab. After 52 weeks of treatment, patients who first received evolocumab in the OSLER study experienced an average of 52 percent reduction in LDL-C, as measured by the accepted standard preparative ultracentrifugation compared to baseline of the Phase 2 parent study. Patients who received one of six dosing regimens of evolocumab in the parent studies and received evolocumab and SOC in OSLER had persistent average LDL-C reductions of 50 percent at the end of the parent study vs. 52 percent at 52 weeks. Improvements in lipoprotein(a) and apolipoprotein B were also sustained up to 52 weeks.

Amgen will also host a webcast investor meeting at AHA on Tuesday, Nov. 19, at 7 p.m. CST. Sean E. Harper, M.D., executive vice president of Research and Development at Amgen, along with members of Amgen's clinical development team and clinical investigators, will participate at the investor meeting to discuss data being presented at AHA.

Live audio of the investor meeting will be simultaneously broadcast over the Internet and will be available to members of the news media, investors and the general public.

The webcast, as with other selected presentations regarding developments in Amgen's business given by management at certain investor and medical conferences, can be found on Amgen's website, www.amgen.com, under Investors. Information regarding presentation times, webcast availability and webcast links are noted on Amgen's Investor Relations Events Calendar. The webcast will be archived and available for replay for at least 90 days after the event.

OSLER Study Design

OSLER (Open Label Study of Long TERm Evaluation Against LDL-C Trial) is an open-label extension study to assess the long-term safety and efficacy of evolocumab. Patients who completed any of the four 12-week Phase 2 studies of evolocumab were eligible. The Phase 2 studies included:

– MENDEL (Monoclonal Antibody Against PCSK9 to Reduce Elevated LDL-C in Patients Currently Not Receiving Drug Therapy for Easing Lipid Levels) in patients who were not receiving statin therapy.

– LAPLACE-TIMI 57 (LDL-C Assessment With PCSK9 MonoclonaL Antibody Inhibition Combined With Statin ThErapy – Thrombolysis In Myocardial Infarction-57) in patients on statin therapy.

– RUTHERFORD (RedUction of LDL-C With PCSK9 InhibiTion in HEteRozygous Familial HypercholesteRolemia Disorder Study) in patients with heterozygous familial hypercholesterolemia.

– GAUSS (Goal Achievement After Utilizing an Anti-PCSK9 Antibody in Statin Intolerant Subjects) in statin-intolerant patients.

A total of 1,104 patients enrolled in the OSLER extension study. Patients were randomized 2:1 to receive evolocumab subcutaneously at 420 mg monthly with SOC or SOC alone for one year. The primary objective was to evaluate the safety and tolerability of evolocumab on a background of SOC. Secondary objectives were effects on lipid parameters compared to Phase 2 study baseline levels.

About PROFICIO: The Evolocumab Clinical Trial Program
PROFICIO, which stands for the Program to Reduce LDL-C and Cardiovascular Outcomes Following Inhibition of PCSK9 In Different POpulations, is a large and comprehensive clinical trial program evaluating evolocumab. Phase 3 clinical trials for evolocumab are currently underway and build upon the Phase 2 studies.

The Phase 3 program includes 13 trials, with a combined planned enrollment of more than 28,000 patients. The Phase 3 studies will evaluate evolocumab administered every two weeks and monthly in multiple patient populations, including in combination with statins in patients with hyperlipidemia (LAPLACE-2), in patients with hyperlipidemia who cannot tolerate statins (GAUSS-2), as a stand-alone treatment in patients with hyperlipidemia (MENDEL-2), and in patients whose elevated cholesterol is caused by genetic disorders called heterozygous (RUTHERFORD-2) and homozygous (TESLA and TAUSSIG) familial hypercholesterolemia.

Five studies of evolocumab will provide long-term safety and efficacy data, including the FOURIER (Further Cardiovascular OUtcomes Research with PCSK9 Inhibition in Subjects with Elevated Risk) study, which will assess whether treatment with evolocumab compared to placebo reduces recurrent cardiovascular events in approximately 22,500 patients with cardiovascular disease.

Additional information about clinical trials of evolocumab can be found at www.clinicaltrials.gov.

About Evolocumab
Evolocumab is a fully human monoclonal antibody that inhibits proprotein convertase subtilisin/kexin type 9 (PCSK9).[1] PCSK9 is a protein that targets LDL receptors for degradation and thereby reduces the liver's ability to remove LDL-C, or "bad" cholesterol, from the blood.[6] Evolocumab, being developed by Amgen scientists, is designed to bind to PCSK9 and inhibit PCSK9 from binding to LDL receptors on the liver surface. In the absence of PCSK9, there are more LDL receptors on the surface of the liver to remove LDL-C from the blood.[1]

About Amgen
Amgen is committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing and delivering innovative human therapeutics. This approach begins by using tools like advanced human genetics to unravel the complexities of disease and understand the fundamentals of human biology.

Amgen focuses on areas of high unmet medical need and leverages its biologics manufacturing expertise to strive for solutions that improve health outcomes and dramatically improve people's lives. A biotechnology pioneer since 1980, Amgen has grown to be the world's largest independent biotechnology company, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

For more information, visit www.amgen.com and follow us on www.twitter.com/amgen.

Forward-Looking Statements
This news release contains forward-looking statements that are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and assumptions that could cause actual results to differ materially from those described. All statements, other than statements of historical fact, are statements that could be deemed forward-looking statements, including estimates of revenues, operating margins, capital expenditures, cash, other financial metrics, expected legal, arbitration, political, regulatory or clinical results or practices, customer and prescriber patterns or practices, reimbursement activities and outcomes and other such estimates and results. Forward-looking statements involve significant risks and uncertainties, including those discussed below and more fully described in the Securities and Exchange Commission (SEC) reports filed by Amgen, including Amgen's most recent annual report on Form 10-K and any subsequent periodic reports on Form 10-Q and Form 8-K. Please refer to Amgen's most recent Forms 10-K, 10-Q and 8-K for additional information on the uncertainties and risk factors related to our business. Unless otherwise noted, Amgen is providing this information as of Nov. 19, 2013, and expressly disclaims any duty to update information contained in this news release.

No forward-looking statement can be guaranteed and actual results may differ materially from those we project. Discovery or identification of new product candidates or development of new indications for existing products cannot be guaranteed and movement from concept to product is uncertain; consequently, there can be no guarantee that any particular product candidate or development of a new indication for an existing product will be successful and become a commercial product. Further, preclinical results do not guarantee safe and effective performance of product candidates in humans. The complexity of the human body cannot be perfectly, or sometimes, even adequately modeled by computer or cell culture systems or animal models. The length of time that it takes for us to complete clinical trials and obtain regulatory approval for product marketing has in the past varied and we expect similar variability in the future. We develop product candidates internally and through licensing collaborations, partnerships and joint ventures. Product candidates that are derived from relationships may be subject to disputes between the parties or may prove to be not as effective or as safe as we may have believed at the time of entering into such relationship. Also, we or others could identify safety, side effects or manufacturing problems with our products after they are on the market. Our business may be impacted by government investigations, litigation and products liability claims. We depend on third parties for a significant portion of our manufacturing capacity for the supply of certain of our current and future products and limits on supply may constrain sales of certain of our current products and product candidate development.

In addition, sales of our products are affected by the reimbursement policies imposed by third-party payors, including governments, private insurance plans and managed care providers and may be affected by regulatory, clinical and guideline developments and domestic and international trends toward managed care and healthcare cost containment as well as U.S. legislation affecting pharmaceutical pricing and reimbursement. Government and others' regulations and reimbursement policies may affect the development, usage and pricing of our products. In addition, we compete with other companies with respect to some of our marketed products as well as for the discovery and development of new products. We believe that some of our newer products, product candidates or new indications for existing products, may face competition when and as they are approved and marketed. Our products may compete against products that have lower prices, established reimbursement, superior performance, are easier to administer, or that are otherwise competitive with our products. In addition, while we routinely obtain patents for our products and technology, the protection offered by our patents and patent applications may be challenged, invalidated or circumvented by our competitors and there can be no guarantee of our ability to obtain or maintain patent protection for our products or product candidates. We cannot guarantee that we will be able to produce commercially successful products or maintain the commercial success of our existing products. Our stock price may be affected by actual or perceived market

opportunity, competitive position, and success or failure of our products or product candidates. Further, the discovery of significant problems with a product similar to one of our products that implicate an entire class of products could have a material adverse effect on sales of the affected products and on our business and results of operations.

The scientific information discussed in this news release related to our product candidates is preliminary and investigative. Such product candidates are not approved by the U.S. Food and Drug Administration (FDA), and no conclusions can or should be drawn regarding the safety or effectiveness of the product candidates.

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(Logo: http://photos.prnewswire.com/prnh/20081015/AMGENLOGO)

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