Arrowhead Pharmaceuticals Begins Dosing in Phase 1 Study of ARO-APOC3 for Treatment of Hypertriglyceridemia

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PASADENA, Calif.--(BUSINESS WIRE)--Mar. 11, 2019-- Arrowhead Pharmaceuticals Inc. (NASDAQ: ARWR) today announced that it has dosed the first subjects in a Phase 1 clinical study of ARO-APOC3, an RNAi-based investigational medicine targeting Apolipoprotein C-III (apoC-III) being developed for the treatment of hypertriglyceridemia.

Bruce Given, M.D., chief operating officer and head of R&D at Arrowhead, said: “Patients with severe hypertriglyceridemia, and particularly patients with Familial Chylomicronemia Syndrome, or FCS, do not have adequate treatment options. Due to its activity as a triglyceride regulator, apoC-III has the potential to be an important therapeutic target for cardiovascular disease. The design of the ARO-APOC3 Phase 1 study is intended to provide a readout on safety and tolerability, as well as a robust view of the pharmacologic activity and duration of effect. ARO-APOC3 is Arrowhead’s second cardiometabolic candidate to enter clinical studies this year, following ARO-ANG3 for the treatment of dyslipidemias and metabolic diseases. It also represents the fifth clinical stage RNAi therapeutic derived from our proprietary Targeted RNAi Molecule, or TRiM™, platform.”

AROAPOC31001 (NCT03783377) is a Phase 1 single and multiple dose-escalating study to evaluate the safety, tolerability, pharmacokinetics, and pharmacodynamic effects of ARO-APOC3 in adult healthy volunteers, hypertriglyceridemic patients, and patients with FCS. The study is designed to enroll up to 63 subjects.

The single-ascending dose (SAD) portion of the study is designed to include 4 cohorts of 10 adult healthy volunteers with elevated triglycerides. Each SAD subject will receive a single-dose administration of either placebo or ARO-APOC3 at dose levels of 25, 50, 100, or 200 mg. The multiple-dose portion is designed to include 3 cohorts of patients with severe hypertriglyceridemia and 1 cohort of patients with FCS. The multiple-dose cohorts will receive two monthly doses of ARO-APOC3.

ApoC-III has emerged as a therapeutic target for triglyceride reduction. ApoC-III regulates triglyceride-rich lipoproteins (TRLs) and is a known inhibitor of lipoprotein lipase (LPL) activity and LPL-mediated lipolysis of TRLs. ApoC-III also delays the clearance of lipoprotein remnants by the liver by inhibiting hepatocyte receptor-mediated uptake. Human genetic studies indicate that people with apoC-III loss-of-function mutations show reduced risk for cardiovascular disease, with reductions in plasma triglycerides levels, while appearing to be phenotypically normal.

FCS is a severe rare genetic disease, with a prevalence of 1 in 1,000,000, and is often caused by single gene mutations that lead to extremely high triglyceride levels, typically over 900 mg/dL, representing the top 0.1% of triglyceride values measured. Such severe elevations lead to various serious signs and symptoms, including acute pancreatitis, which can be fatal, chronic daily abdominal pain, type II diabetes mellitus, hepatic steatosis, and cognitive issues. There is no currently available therapy that can adequately treat FCS.

About Arrowhead Pharmaceuticals

Arrowhead Pharmaceuticals develops medicines that treat intractable diseases by silencing the genes that cause them. Using a broad portfolio of RNA chemistries and efficient modes of delivery, Arrowhead therapies trigger the RNA interference mechanism to induce rapid, deep, and durable knockdown of target genes. RNA interference, or RNAi, is a mechanism present in living cells that inhibits the expression of a specific gene, thereby affecting the production of a specific protein. Arrowhead’s RNAi-based therapeutics leverage this natural pathway of gene silencing.

For more information, please visit www.arrowheadpharma.com, or follow us on Twitter @ArrowheadPharma. To be added to the Company's email list and receive news directly, please visit http://ir.arrowheadpharma.com/email-alerts.

Safe Harbor Statement under the Private Securities Litigation Reform Act:

This news release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These statements are based upon our current expectations and speak only as of the date hereof. Our actual results may differ materially and adversely from those expressed in any forward-looking statements as a result of various factors and uncertainties, including the safety and efficacy of our product candidates, the duration and impact of regulatory delays in our clinical programs, our ability to finance our operations, the likelihood and timing of the receipt of future milestone and licensing fees, the future success of our scientific studies, our ability to successfully develop and commercialize drug candidates, the timing for starting and completing clinical trials, rapid technological change in our markets, and the enforcement of our intellectual property rights. Our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q discuss some of the important risk factors that may affect our business, results of operations and financial condition. We assume no obligation to update or revise forward-looking statements to reflect new events or circumstances.

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