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Acasti Pharma Announces TRILOGY 1 Trial Has Achieved 100% Patient Randomization in Patients with Severe Hypertriglyceridemia

More Than 40% of Patients Have Completed Their 6 Month Treatment Plan

Top Line Results Remain On Track For Year-End

Annual Performance Grants of Stock Options and Amendment of Stock Option Plan Announced

LAVAL, Quebec, April 15, 2019 (GLOBE NEWSWIRE) -- Acasti Pharma Inc. ("Acasti or the "Company") (NASDAQ: ACST – TSX-V: ACST), a biopharmaceutical innovator focused on the research, development and commercialization of its prescription drug candidate CaPre® (omega-3 phospholipid) for the treatment of severe hypertriglyceridemia (HTG), today announced that the Company's two on-going Phase 3 TRILOGY trials (TRILOGY 1 and TRILOGY 2) have exceeded a combined 89% patient randomization, and more than 40% of the patients in both trials have completed their 6-month treatment plan. This means that the "last patient in" to the TRILOGY 1 trial, will complete the trial by November. With the expected approximate 1 month of data clean-up following the "last patient out", topline results for TRILOGY 1 are expected in December.

Pierre Lemieux, Ph.D., COO and CSO of Acasti, commented, "We are very pleased to announce that our two TRILOGY Phase 3 trials are proceeding well and according to plan. We now have reached 100% of the required total randomized patients for TRILOGY 1 (245 patients), and 77% of the targeted number of patients have been randomized in TRILOGY 2. We are also pleased to report that there have been no severe adverse events associated with our product, and we have experienced a lower drop-out rate than anticipated, supporting the high safety profile and patient acceptability of CaPre."

Topline results will include readout of the primary endpoint, which is CaPre's overall impact on lowering triglycerides. In addition, the topline results will include CaPre's impact on LDL and HDL cholesterol, non-HDL cholesterol, and HbA1c, which is an important biomarker of glucose control in diabetic patients.

Pierre Lemieux added, "Previous studies with CaPre have shown its potential to improve glucose metabolism. We expect that a significant number of the patients enrolled in the TRILOGY studies will have diabetes with baseline HbA1c levels above 6.5. Therefore, there should be adequate patient numbers and data to evaluate statistical evidence, if there is a clinically meaningful effect from CaPre on HbA1C and/or other biomarkers of long-term glucose intolerance. Since there is an increased risk from the use of statins in diabetic

patients with cardiovascular risk factors, and given the fact hypertriglyceridemia is a major risk factor for type 2 diabetes, beneficial effects of CaPre on glycemic parameters could be advantageous and an important differentiator versus other marketed omega-3 therapeutic drugs."

Jan D'Alvise, president and CEO of Acasti Pharma, further noted, "We are very pleased with the progress of the TRILOGY program, and appreciate the experienced leadership provided by our CRO and Dr. Mozaffarian, our Principle Investigator, and all of the investigators involved with these trials at more than 150 clinical sites across the U.S., Canada, and Mexico. Achieving 100% randomization on schedule is a major milestone for TRILOGY 1, and we expect to attain the final randomization target of 245 patients for TRILOGY 2 by the end of next month. Consequently, we remain on track to report topline results for TRILOGY 1 by the end of 2019, with topline results for TRILOGY 2 within a few weeks thereafter. Full results for both trials will be available as planned in Q1 of 2020."

Acasti also announced today the annual grant of stock options to its employees, executives and directors, and the amendment of its stock option plan (the "Stock Option Plan"). The stock options were granted by the Board of Directors as part of the Company's annual performance review in accordance with the Company's Long-Term Incentive Program (LTIP).

On April 15, 2019, an aggregate of 644,117 stock options were granted to certain employees, executives and directors of the Company under the Company's Stock Option Plan. Subject to the terms and conditions of the Stock Option Plan, options granted to directors will vest in equal quarterly installments over a period of 18 months and options granted to executives and employees will vest in equal quarterly installments over a period of 36 months. Each option will entitle the holder to purchase one common share of Acasti at a price of CDN$1.28, until April 15, 2029.

Subject to the approvals of the TSX Venture Exchange and of shareholders at the Company's next annual and special meeting, on April 15, 2019, the Board of Directors amended the Stock Option Plan in order to increase the current limit of shares reserved for issuance under the plan, and also approved the grant of an additional aggregate amount of 1,362,900 stock options to executives and directors of the Company. Subject to the terms and conditions of the amended Stock Option Plan, options granted to directors will vest in equal quarterly installments over a period of 18 months and options granted to executives will vest in equal quarterly installments over a period of 36 months. Each option will entitle the holder to purchase one common share of Acasti at a price of CDN$1.28, until April 15, 2029. Pursuant to the amendments, the limit of shares reserved for issuance under the amended Stock Option Plan was increased from 5,494,209, representing 15% of the issued and outstanding common shares of the Company as of June 27, 2018, to 11,719,910, in order to maintain the option pool at a fixed 15% of the issued and outstanding common shares of the Company as of April 9, 2019.

About CaPre (omega-3 phospholipid)

Acasti Pharma's prescription drug candidate, CaPre, is a highly purified omega-3 phospholipid concentrate derived from krill oil and is being developed to treat severe hypertriglyceridemia, a metabolic condition that contributes to increased risk of cardiovascular disease and pancreatitis. Its omega-3s, principally EPA and DHA, are either

“free” or bound to phospholipids that allows for better absorption into the body. Acasti Pharma believes that EPA and DHA are more efficiently transported by phospholipids sourced from krill oil than the EPA and DHA contained in fish oil that are transported either by triglycerides (as in dietary supplements) or as ethyl esters in other prescription omega-3 drugs, which must then undergo additional digestion before they are ready for transport in the bloodstream. Acasti Pharma’s CaPre Phase 3 program is currently underway.

About Acasti Pharma

Acasti Pharma is a biopharmaceutical innovator advancing a potentially best-in-class cardiovascular drug, CaPre® (omega-3 phospholipid), for the treatment of hypertriglyceridemia, a chronic condition affecting an estimated one third of the U.S. population. Since its founding in 2008, Acasti Pharma has focused on addressing a critical market need for an effective, safe and well-absorbing omega-3 therapeutic that can make a positive impact on the major blood lipids associated with cardiovascular disease risk. Acasti Pharma is developing CaPre in a Phase 3 clinical program in patients with severe hypertriglyceridemia, a market that includes 3 to 4 million patients in the U.S. The addressable market may expand significantly if omega-3s demonstrate long-term cardiovascular benefits in on-going third-party outcomes studies. Acasti Pharma may need to conduct at least one additional clinical trial to support FDA approval of a supplemental New Drug Application to expand CaPre’s indications to this segment. Acasti Pharma’s strategy is to commercialize CaPre in the U.S. and Acasti Pharma is pursuing development and distribution partnerships to market CaPre in major countries around the world. For more information, visit www.acastipharma.com.

Forward Looking Statements

Statements in this press release that are not statements of historical or current fact constitute “forward-looking information” within the meaning of Canadian securities laws and “forward-looking statements” within the meaning of U.S. federal securities laws (collectively, “**forward-looking statements**”). Such forward-looking statements involve known and unknown risks, uncertainties, and other unknown factors that could cause the actual results of Acasti Pharma to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. In addition to statements which explicitly describe such risks and uncertainties, readers are urged to consider statements labeled with the terms “believes,” “belief,” “expects,” “intends,” “anticipates,” “potential,” “should,” “may,” “will,” “plans,” “continue”, “targeted” or other similar expressions to be uncertain and forward-looking. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this press release. Forward-looking statements in this press release include, but are not limited to, information or statements about Acasti Pharma’s strategy, future operations, prospects and the plans of management; Acasti Pharma’s ability to conduct all required clinical and non-clinical trials for CaPre, including the timing and results of those trials; the timing and the outcome of licensing negotiations; CaPre’s potential to become the “best-in-class” cardiovascular drug for treating severe hypertriglyceridemia, Acasti Pharma’s ability to commercially launch CaPre, and, Acasti Pharma’s ability to fund its continued operations.

The forward-looking statements contained in this press release are expressly qualified in their entirety by this cautionary statement, the “Cautionary Note Regarding Forward-Looking Information” section contained in Acasti Pharma’s latest annual report on Form 20-F and

most recent management's discussion and analysis (MD&A), which are available on SEDAR at www.sedar.com, on EDGAR at www.sec.gov/edgar/shtml, and on the investor section of Acasti Pharma's website at www.acastipharma.com. All forward-looking statements in this press release are made as of the date of this press release. Acasti Pharma does not undertake to update any such forward-looking statements whether as a result of new information, future events or otherwise, except as required by law. The forward-looking statements contained herein are also subject generally to assumptions and risks and uncertainties that are described from time to time in Acasti Pharma's public securities filings with the Securities and Exchange Commission and the Canadian securities commissions, including Acasti Pharma's latest annual report on Form 20-F and most recent MD&A.

Neither NASDAQ, the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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