UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of December 2019

Commission File Number: 001-35776

ACASTI PHARMA INC.

(Translation of registrant's name into English)

545 Promende du Centropolis
Suite 100
Laval, Québec
Canada H7T 0A3
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
Form 20-F [X] Form 40-F [ ]

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): N/A

This Report on Form 6-K including the exhibits hereto shall be deemed to be incorporated by reference into Acasti Pharma Inc.'s registration statement on Form S-8 (File No. 333-191383) and to be a part thereof from the date on which this report is furnished, to the extent not superseded by documents or reports subsequently filed or furnished.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ACASTI PHARMA INC.

Date: December 23, 2019

By: /s/ Jan D'Alvise
Name: Jan D'Alvise
Title: Chief Executive Officer

EXHIBIT INDEX

Exhibit Number	Description
99.1	Press Release dated December 24, 2019

EXHIBIT 99.1

Acasti Pharma Provides Update on Timing of Topline Results for TRILOGY 1 Phase 3 Trial of CaPre

Expects to report Trilogy 1 topline results in January 2020
with topline results for Trilogy 2 still expected by the end of January 2020

LAVAL, Québec, Dec. 23, 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 (triglyceride blood levels from 500 mg/dL to 1500 mg/dL), today announced that it expects to report its topline results for the TRILOGY 1 pivotal Phase 3 trial of CaPre in January 2020. The reporting of Trilogy 1 was postponed due to an unexpected delay in data processing and transfer from the central testing laboratory to the statistical consultants for independent and external validation. Acasti regrets the delay due to factors outside its control, and now anticipates to report topline results in January 2020. As requested by the Investment Industry Regulatory Organization of Canada (IIROC), due to market volatility, the Company indicates that it has no material update to provide at this time beyond the above timing update and independent and external validation exercise that is underway.

Implementation of the Trilogy 2 Study remains on track, and the Company continues to expect the last patient to complete their final visit in early January 2020, and expects to report topline results in Trilogy 2 towards the end of January 2020.

Topline results will include a readout of the primary endpoint, which is intended to show CaPre's overall impact on lowering triglycerides (TGs) after 12 weeks compared to placebo. Safety and tolerability (e.g. overall adverse events (AE) and serious AE rate, and any discontinuation due to AEs) will also be reported. Other important secondary endpoints such as Non-HDL cholesterol, HDL cholesterol, and VLDL may now also be reported with the topline results. As previously disclosed, subgroup analyses of certain key secondary (LDL) and exploratory markers (HbA1c) will be dependent on combining results from both studies, and would be expected sometime later in the first quarter of 2020.

NOVEMBER ATM DISTRIBUTION UPDATE

Acasti also provided an update on its previously adopted at-the-market program (the "ATM Program") for the month of November 2019, as required pursuant to the policies of the TSX Venture Exchange (the "November ATM Distribution"). Pursuant to the November ATM Distribution, Acasti issued an aggregate of 2,628,263 common shares of the Company (the "ATM Shares") over the NASDAQ Stock Market for aggregate gross proceeds to the Company of US$5,693,057.27. The ATM Shares were sold at prevailing market prices which ranged from US$2.05 per share to US$2.27 per share. No securities were sold through the facilities of the TSX Venture Exchange or, to the knowledge of the Company, in Canada. The ATM Shares were sold pursuant to a U.S. registration statement on Form F-3 (No. 333-223464) as made effective on March 16, 2018, as well as an at-the-market issuance sales agreement dated February 14, 2019 among Acasti and B. Riley FBR, Inc. The ATM Shares sold pursuant to the November ATM Distribution were the first securities sold by Acasti under the ATM Program.

About CaPre

Acasti'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, which allows for better absorption into the body. Acasti 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. Clinically, the phospholipids may not only improve the absorption, distribution, and metabolism of omega-3s, but they may also decrease the synthesis of LDL cholesterol in the liver, impede or block cholesterol absorption, and stimulate lipid secretion from bile.

About Acasti Pharma

Acasti Pharma is a biopharmaceutical innovator advancing a potentially best-in-class cardiovascular drug, CaPre, 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. The company 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 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's strategy is to commercialize CaPre in the U.S. and the company 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 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's strategy, future operations, prospects and the plans of management; Acasti'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'spotential to become the "best-in-class" cardiovascular drug for treating severe Hypertriglyceridemia (HTG), Acasti's ability to commercially launch CaPre, CaPre's potential to meet or exceed the target primary endpoint of reducing triglycerides by 20% compared to placebo, Acasti's ability to report to topline results for TRILOGY 1 and TRILOGY 2 in January 2020 and Acasti'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'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'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 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's public securities filings with the Securities and Exchange Commission and the Canadian securities commissions, including Acasti'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.

Acasti Contact:

Jan D'Alvise
Chief Executive Officer
Tel: 450-686-4555
Email: info@acastipharma.com
www.acastipharma.com

Investor Contact:

Crescendo Communications, LLC
Tel: 212-671-1020
Email: ACST@crescendo-ir.com