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 July 2013.

Commission File Number: **001-35776**

Acasti Pharma Inc.
(Translation of registrant's name into English)

545 PROMENADE DU CENTROPOLIS, SUITE 100
LAVAL QUEBEC 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 [ ] Form 40-F [x]

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): ___

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

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): ___

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

On July 31, 2013 the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

(c) Exhibit 99.1. Press release dated July 31, 2013

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.
(Registrant)

Date: July 31, 2013

/s/ HENRI HARLAND
Henri Harland
CEO

Acasti Signs Manufacturing Agreement

LAVAL, Quebec, July 31, 2013 (GLOBE NEWSWIRE) -- Acasti Pharma ("Acasti" or the "Corporation") (Nasdaq:ACST) (TSX-V:APO), a Neptune Technologies & Bioressources Inc.'s ("Neptune") subsidiary, announces that it has signed an agreement with a world leader in natural based specialty chemicals for the manufacturing of CaPre® clinical material in expectation of upcoming Pharmacokinetics (PK) and phase III clinical trials in the USA and to substantiate its upcoming submission of an Investigational New Drug (IND) filing.

"Acasti's manufacturing processing steps will be followed using current Good Manufacturing Practices (cGMP) guidelines, utilizing scrutinized process directives under our direct supervision," highlighted Dr. Harlan W. Waksal, Executive Vice President, Business and Scientific Affairs at Acasti. Specialized krill oil raw material will first be produced by a North American company using Neptune's proprietary production process. It will then be sent to the specialty chemicals manufacturer for further processing, including purification and formulation into CaPre® under cGMP guidelines.

"These agreements will ensure sufficient quantities of CaPre® for expected PK and Phase III clinical trials," added Dr. Waksal. "They will also play a crucial role in the preparation of the Chemistry, Manufacturing and Control (CMC) section of Acasti's IND submission to conduct the clinical trials in the USA. This marks a major milestone and an important step in driving further value creation." Acasti intends to initiate discussions to manufacture CaPre® at full plant scale, should regulatory approval for commercialization in the USA be obtained. Names of potential partners are not disclosed for confidentiality and strategic reasons.

Acasti is currently conducting Phase II clinical trials of CaPre®, with the final report for the open-label, dose ranging study (COLT) expected for this summer and completion of the double blind, placebo controlled study (TRIFECTA) projected for the first half of calendar 2014. Concurrently with these trials, the Corporation is moving forward with its plan to submit an IND filing with the U.S. Food and Drug Administration (FDA) to initiate PK and phase III clinical trials of CaPre® in the USA.

About Acasti Pharma Inc.

Acasti is developing a product portfolio of proprietary novel long-chain omega-3 phospholipids. Phospholipids are the major component of cell membranes and are essential for all vital cell processes. They are one of the principal constituents of High Density Lipoprotein (good cholesterol) and, as such, play an important role in modulating cholesterol efflux. Acasti's proprietary novel phospholipids carry and functionalize the polyunsaturated omega-3 fatty acids EPA and DHA, which have been shown to have substantial health benefits and which are stabilized by potent antioxidants. Acasti is focusing initially on treatments for chronic cardiovascular and cardiometabolic conditions within the medical food and prescription drug markets.

"Neither NASDAQ nor 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."

Statements in this press release that are not statements of historical or current fact constitute "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and Canadian securities laws. Such forward-looking statements involve known and unknown risks, uncertainties, and other unknown factors that could cause the actual results of the Corporation 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," "will," or "plans" to be uncertain and forward-looking. The forward-looking statements contained herein are also subject generally to other risks and uncertainties that are described from time to time in the Corporation's reports filed with the Securities and Exchange Commission and the Canadian securities commissions.

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