Acasti Pharma Announces the Election of Its Directors, Changes to Its Stock Option Plan and Other Related Matters Approved at Its AGM

Montréal, Québec, CANADA, August 29, 2018 — Acasti Pharma Inc. (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, announced that the following individuals were elected as directors of Acasti Pharma Inc. ("Acasti" or the "Corporation") at its Annual and Special Meeting of Shareholders, held in Montreal, Canada on August 28, 2018 (the "AGM"): Roderick N. Carter, Jean-Marie (John) Canan, Jan D'Alvise and Donald Olds.

For further information on the voting results of the resolution passed during the AGM, please refer to the Report of Voting Results available on SEDAR.

Amendments to the Corporation Stock Option Plan and Equity Incentive Plan

At the AGM, disinterested shareholders approved amendments to the stock option plan (the "Amended Stock Option Plan") as follows: (a) in order to increase the fixed number of common shares (the "Common Shares") that may be issued upon the exercise of all options granted under the plan, from 2,940,511 (representing 20% of the number of Common Shares issued and outstanding, as of March 31, 2017) to 15% of the issued and outstanding Common Shares as of June 27, 2018, representing 5,494,209 Common Shares, which includes the 2,940,511 Common Shares reserved for outstanding options under the Stock Option Plan as at July 24, 2018 (the "Record Date") (representing approximately 8% of the issued and outstanding Common Shares as of the Record Date) and an additional reserve of 2,553,698 Common Shares reserved for issuance for additional grants (representing approximately 7% of the issued and outstanding Common Shares as of the Record Date); and (b) provide that all options granted to a director will be vested evenly on a quarterly basis over a period of at least 18 months, and that all options granted to an employee will be vested evenly on a quarterly basis over a period of at least 36 months.

At the AGM, disinterested shareholders also approved amendments to the equity incentive plan (the "Amended Equity Incentive Plan") in order to set the total number of Common Shares reserved for issuance pursuant to awards granted under the Equity Incentive Plan to an aggregate number that if, and for so long as the Common Shares are listed on the TSX-V, shall not exceed the lower of (x) 915,701 Common Shares (representing 2.5% of the number of Common Shares issued and outstanding as of June 27, 2018), up from 367,563 Common Shares (representing 2.5% of the number of Common Shares issued and outstanding as of March 31, 2017), and (y) 15% of the issued and outstanding Common Shares as of June 27, 2018, representing 5,494,209 Common Shares (up from 2,940,511 Common Shares representing 20% of the number of Common Shares issued and outstanding as of March 31, 2017), which number shall include Common Shares issuable pursuant to options issued under the Amended Stock Option Plan.

The Amended Stock Option Plan and the Amended Equity Incentive Plan are subject to TSX-V final approval.

Ratification of Stock Option Grants

At the AGM, disinterested shareholders approved a resolution to approve, ratify and confirm a previous grant of a total of 1,412,423 options to purchase Common Shares of the Corporation to certain directors and officers of the Corporation, as further described in the management proxy circular dated July 27, 2018.

About CaPre (omega-3 phospholipid)

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 that 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. Acasti'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. 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 outcomes studies (REDUCE-IT and STRENGTH). 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 statements" within the meaning of the U.S. securities laws 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 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," "will," or "plans" 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.

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 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. Additional information about these assumptions and risks and uncertainties is contained in the Annual Report and in the Corporation's most recent management's discussion and analysis (MD&A), in each case under the heading "Risk Factors."

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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