

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

POST-EFFECTIVE AMENDMENT NO. 1 TO
FORM S-3
REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

ACASTI PHARMA INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

98-1359336
(I.R.S. Employer
Identification Number)

Acasti Pharma Inc.
103 Carnegie Center, Suite 300
Princeton, New Jersey 08540
(609) 322-1602
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Prashant Kohli
Chief Executive Officer
Acasti Pharma Inc.
103 Carnegie Center, Suite 300
Princeton, New Jersey 08540
(609) 322-1602
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:
Steven J. Abrams
Hogan Lovells US LLP
1735 Market Street, 23rd Floor
Philadelphia, PA 19103
(267) 675-4600

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This Post-Effective Amendment No. 1 (this “Amendment”) to Registration Statement No. 333-274899 (the “Registration Statement”) is being filed pursuant to Rule 414(d) under the Securities Act of 1933, as amended (the “Securities Act”) by Acasti Pharma Inc., a Delaware corporation (“Acasti Delaware”), as the ultimate successor to Acasti Pharma Inc., a corporation previously existing under the laws of the Province of Québec, Canada (“Acasti Québec”), which, as further described below, changed its jurisdiction to the Province of British Columbia, Canada (“Acasti British Columbia”) prior to changing its jurisdiction to the State of Delaware. For purposes of this Amendment and the Registration Statement, the terms the “Company,” “Acasti,” “we,” “us” and “our” refer to (i) Acasti Québec, (ii) Acasti British Columbia or (iii) Acasti Delaware, as applicable.

On October 1, 2024, the Company changed its jurisdiction of incorporation from the Province of Québec in Canada to the Province of British Columbia in Canada pursuant to a “continuance” effected in accordance with Chapter XII of the *Business Corporations Act* (Québec) (the “Continuance”). On October 7, 2024, the Company changed its jurisdiction of incorporation from the Province of British Columbia in Canada to the State of Delaware in the United States pursuant to a “continuance” effected in accordance with Section 308 of the *Business Corporations Act* (British Columbia) and a “domestication” (the “Domestication”) under Section 388 of the *General Corporation Law* of the State of Delaware (the “DGCL”).

The information contained in this Amendment sets forth additional information to reflect the Domestication. All documents filed by the Company under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) before the effective date of the Domestication will not reflect the change in the Company’s jurisdiction of incorporation.

Upon effectiveness of the Continuance, each outstanding Class A common share, without par value per share, of Acasti Québec at the time of the Continuance remained issued and outstanding as a common share, without par value per share, of Acasti British Columbia. Furthermore, upon effectiveness of the Domestication, each outstanding common share of Acasti British Columbia at the time of the Domestication automatically became one outstanding share of common stock, par value \$0.0001 per share, of Acasti Delaware. The common stock of Acasti Delaware continues to be listed for trading on The Nasdaq Stock Market LLC under the symbol “ACST.”

In connection with the Domestication, the Company continues its obligations under (i) the Acasti Pharma Inc. Stock Option Plan and (ii) the Acasti Pharma Inc. Equity Incentive Plan (together, the “Plans”) and all of the outstanding equity awards under the Plans.

Upon effectiveness of the Continuance, each outstanding option, warrant and restricted share unit settleable into Class A common shares of Acasti Québec remained exercisable for or able to be settled into an equivalent number of common shares of Acasti British Columbia for the equivalent exercise price per share (if applicable), without any action by the holder. Upon effectiveness of the Domestication, each outstanding option, warrant and restricted share unit settleable into common shares of Acasti British Columbia remained exercisable for or able to be settled into an equivalent number of shares of common stock of Acasti Delaware for the equivalent exercise price per share (if applicable), without any action by the holder.

The rights of stockholders of the Company are now governed by Delaware law, the certificate of incorporation of the Company (the “Certificate of Incorporation”) and the bylaws of the Company (the “Bylaws”), which were adopted in connection with the Domestication. Delaware law, the Certificate of Incorporation and the Bylaws contain provisions that differ in certain respects from Acasti Québec’s organizational documents and Québec law and Acasti British Columbia’s organizational documents and British Columbia law. A description of the rights of stockholders before and after the Domestication is described in the final prospectus dated August 7, 2024, which was filed with the Securities and Exchange Commission (the “Commission”) on August 7, 2024 and is a part of the Company’s registration statement on Form S-4 (File No. 333-280536).

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The information set forth in this item is incorporated by reference from Item 14 of the Company’s Form S-3 (Registration No. 333-274899) filed with the Commission on October 6, 2023.

Item 15. Indemnification of Directors and Officers.

Set forth below is a description of the DGCL, our Certificate of Incorporation and our Bylaws, as such provisions relate to the indemnification of our directors and officers. This description is intended only as a summary and is qualified in its entirety by reference to the DGCL, our Certificate of Incorporation and our Bylaws.

Section 102(b)(7) of the DGCL generally permits a Delaware corporation to provide in its certificate of incorporation that directors or certain officers of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, except for liability (i) with respect to directors and officers, any breach of the director’s or officer’s duty of loyalty to the corporation or its stockholders; (ii) with respect to directors and officers, acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) with respect to directors, payments of unlawful dividends or unlawful stock repurchases or redemptions under Section 174 of the DGCL; (iv) with respect to directors and officers, any transaction from which the director or officer derived an improper personal benefit; or (v) with respect to officers, any action by or in the right of the corporation.

Section 145(a) of the DGCL provides, in general, that a Delaware corporation may indemnify any person who is or was a party, or is threatened to be made a party, to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) because that person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise. The indemnity may include expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, so long as the person acted in good faith and in a manner he or she reasonably believed was in or not opposed to the corporation’s best interests, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Section 145(b) of the DGCL provides, in general, that a Delaware corporation may indemnify any person who is or was a party, or is threatened to be made a party, to any threatened, pending or completed action or suit by or in the right of the corporation to obtain a judgment in its favor because the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action, so long as the person acted in good faith and in a manner the person reasonably believed was in or not opposed to the corporation's best interests, except that no indemnification shall be permitted without judicial approval if a court has determined that the person is to be liable to the corporation with respect to such claim.

Section 145(c) of the DGCL provides that, if a present or former director or officer has been successful in defense of any action referred to in Sections 145(a) and (b) of the DGCL, the corporation must indemnify such officer or director against the expenses (including attorneys' fees) he or she actually and reasonably incurred in connection with such action.

Section 145(g) of the DGCL provides, in general, that a corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise against any liability asserted against and incurred by such person, in any such capacity, or arising out of his or her status as such, whether or not the corporation could indemnify the person against such liability under Section 145 of the DGCL.

The Company's Certificate of Incorporation contains provisions that limit the liability of the Company's directors and officers for monetary damages to the fullest extent permitted by the DGCL. In addition, if the DGCL is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of the Company's directors and officers will be further limited to the greatest extent permitted by the DGCL.

Our Bylaws provide that we will indemnify our directors and officers, and may indemnify our employees, agents and any other persons, to the fullest extent permitted by the DGCL, subject to limited exceptions. Our Bylaws also provide that we must advance expenses incurred by or on behalf of a current or former director or officer in advance of the final disposition of any action or proceeding, subject to limited exceptions.

Further, we have entered into indemnification agreements with each of our directors and executive officers that may be broader than the specific indemnification provisions contained in the DGCL. These indemnification agreements require us, among other things, to indemnify our directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require us to advance all expenses reasonably and actually incurred by the directors and executive officers in investigating or defending any such action, suit or proceeding. We believe that these agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

Directors' and officers' liability insurance has been purchased for the benefit of our directors and officers to back up the Company's indemnification of them against liability incurred in their capacity as directors and officers, subject to certain limitations under applicable law. We also maintain insurance policies under which our directors and officers are insured, within the limits and subject to the limitations of those policies, against certain expenses in connection with the defense of, and certain liabilities which might be imposed as a result of, actions, suits, or proceedings to which they are parties by reason of being or having been directors or officers of the Company. The coverage provided by these policies may apply whether or not we would have the power to indemnify such person against such liability under the provisions of the DGCL.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

See the Exhibit Index List below, which is incorporated by reference herein.

Exhibit Number	Exhibit Title
2.1	Agreement and Plan of Merger dated as of May 7, 2021, among Acasti Pharma Inc., Acasti Pharma U.S., Inc. and Grace Therapeutics Inc. (incorporated by reference to Exhibit 2.1 to the Form 8-K (File No. 001-35776) filed with the Commission on May 7, 2021)
4.1	Acasti Pharma Inc. Certificate of Incorporation (incorporated by reference to Exhibit 3.3 to the Form 8-K (File No. 001-35776) filed with the Commission on October 7, 2024)
4.2	Acasti Pharma Inc. Bylaws (incorporated by reference to Exhibit 3.4 to the Form 8-K (File No. 001-35776) filed with the Commission on October 7, 2024)
4.3	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Form 8-K filed with the Commission on October 7, 2024)
4.4	Form of Common Warrant, dated September 25, 2023 (incorporated by reference to Exhibit 4.1 to the Form 8-K (File No. 001-35776) filed with the Commission on September 26, 2023)
4.5	Form of Pre-Funded Warrant, dated September 25, 2023 (incorporated by reference to Exhibit 4.2 to the Form 8-K (File No. 001-35776) filed with the Commission on September 26, 2023)
5.1*	Opinion of Hogan Lovells US LLP
23.1*	Consent of KPMG LLP
23.2*	Consent of Ernst & Young LLP
23.3*	Consent of Hogan Lovells US LLP (included in Exhibit 5.1)
24.1*	Power of attorney (included on Signature Page)
107**	Filing Fee Table

* Filed herewith.

** Previously filed as an exhibit to the Registration Statement on Form S-3 filed with the Commission on October 6, 2023.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to the registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Filing Fee Tables" or "Calculation of Registration Fee Table," as applicable, in the effective registration statement;

- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act, that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
- (2) That, for purposes of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date;

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Post-Effective Amendment No. 1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Princeton, State of New Jersey, on October 8, 2024.

ACASTI PHARMA INC.

By: /s/ Prashant Kohli
Name: Prashant Kohli

Title: Chief Executive Officer and Director
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Prashant Kohli as his true and lawful attorney-in-fact and agent, with the full power of substitution, for him and in his name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and any other registration statements for the same offering pursuant to Rule 462(b) of the Securities Act of 1933, as amended, and to file the same, with exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Post-Effective Amendment No.1 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u> /s/ Prashant Kohli</u> Prashant Kohli	Chief Executive Officer and Director (Principal Executive Officer)	October 8, 2024
<u> /s/ Robert DelAversano</u> Robert DelAversano	Vice President, Finance (Principal Financial and Principal Accounting Officer)	October 8, 2024
<u> /s/ Vimal Kavuru</u> Vimal Kavuru	Director, Chairman	October 8, 2024
<u> /s/ Brian Davis</u> Brian Davis	Director	October 8, 2024
<u> /s/ George Kottayil</u> George Kottayil	Director	October 8, 2024
<u> /s/ Edward Neugeboren</u> Edward Neugeboren	Director	October 8, 2024

The logo for Hogan Lovells, featuring the company name in a serif font on a yellow rectangular background.

Hogan Lovells US LLP
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October 8, 2024

Board of Directors
Acasti Pharma Inc.
103 Carnegie Center
Suite 300
Princeton, NJ 08540

To the addressee referred to above:

We are acting as counsel to Acasti Pharma Inc., a Delaware corporation (the “**Company**”), in connection with its Post-Effective Amendment No. 1 (the “**Post-Effective Amendment**”) to its registration statement on Form S-3 (File No. 333-274899) (the “**Registration Statement**”), previously filed with the Securities and Exchange Commission (the “**Commission**”) under the Securities Act of 1933, as amended (the “**Act**”), relating to the resale, from time to time, by the selling stockholders listed in the Registration Statement of up to 6,594,615 shares of common stock, par value \$0.0001 per share, of the Company (“**Common Stock**”), comprised of (a) 1,951,371 shares of Common Stock (the “**Shares**”), (b) 2,106,853 shares of Common Stock (the “**Pre-Funded Warrant Shares**”) issuable upon the exercise of the pre-funded warrants (the “**Pre-Funded Warrants**”), and (c) 2,536,391 shares of Common Stock (the “**Common Warrant Shares**” and, together with the Pre-Funded Warrant Shares, the “**Warrant Shares**”) issuable upon the exercise of the common warrants (“**Common Warrants**” and, together with the Pre-Funded Warrants, the “**Warrants**”), each issued to accredited investors in a private placement pursuant to that certain securities purchase agreement by and between the Company and the accredited investors, dated as of September 24, 2023 (the “**Securities Purchase Agreement**”) as described in the prospectus that forms a part of the Registration Statement (the “**Prospectus**”). The Post-Effective Amendment is being filed with the Commission under the Act for the purpose of updating the Registration Statement following the Company’s change in its jurisdiction of organization to the State of Delaware. This opinion letter is furnished to you at your request to enable you to fulfill the requirements of Item 601(b)(5) of Regulation S-K, 17 C.F.R. § 229.601(b)(5), in connection with the Registration Statement.

For purposes of this opinion letter, we have examined copies of such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed, including the Securities Purchase Agreement and the Warrants. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including pdfs). As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on. This opinion letter is given, and all statements herein are made, in the context of the foregoing.

Hogan Lovells US LLP is a limited liability partnership registered in the state of Delaware. “Hogan Lovells” is an international legal practice that includes Hogan Lovells US LLP and Hogan Lovells International LLP, with offices in: Alicante Amsterdam Baltimore Berlin Beijing Birmingham Boston Brussels Colorado Springs Denver Dubai Dusseldorf Frankfurt Hamburg Hanoi Ho Chi Minh City Hong Kong Houston Johannesburg London Los Angeles Luxembourg Madrid Mexico City Miami Milan Minneapolis Monterrey Munich New York Northern Virginia Paris Philadelphia Riyadh Rome San Francisco São Paulo Shanghai Silicon Valley Singapore Sydney Tokyo Warsaw Washington, D.C. Associated Offices: Budapest Jakarta Shanghai FTZ. Business Service Centers: Johannesburg Louisville. For more information see www.hoganlovells.com

This opinion letter is based as to matters of law solely on the Delaware General Corporation Law, as amended. We express no opinion herein as to any other statutes, rules or regulations.

Based upon, subject to and limited by the foregoing, we are of the opinion that, as of the date hereof, (a) the Shares have been validly issued, fully paid, and nonassessable, and (b) the Warrant Shares have been duly authorized by all necessary corporate action on the part of the Company and, following (i) the exercise of the Warrants in accordance with their terms, (ii) the receipt by the Company of the exercise price for the Warrant Shares as specified in the applicable Warrants, and (iii) the issuance of the Warrant Shares thereunder, the Warrant Shares will be validly issued, fully paid, and nonassessable.

This opinion letter has been prepared for use in connection with the Registration Statement. We assume no obligation to advise of any changes in the foregoing subsequent to the effective date of the Post-Effective Amendment.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Post-Effective Amendment. In giving this consent, we do not thereby admit that we are an “expert” within the meaning of the Act.

Very truly yours,

/s/ HOGAN LOVELLS US LLP

HOGAN LOVELLS US LLP

Consent of Independent Registered Public Accounting Firm

We consent to the use of our report dated June 21, 2024, with respect to the consolidated financial statements of Acasti Pharma Inc., incorporated herein by reference.

/s/ KPMG LLP

Philadelphia, Pennsylvania
October 8, 2024

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-3 No. 333-274899) and related Prospectus of Acasti Pharma Inc. and to the incorporation by reference therein of our report dated June 23, 2023, except for the effects of the reverse stock split described in Note 1, as to which the date is June 21, 2024, with respect to the consolidated financial statements of Acasti Pharma Inc. included in its Annual Report (Form 10-K) for the year ended March 31, 2024, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Montréal, Canada

October 8, 2024
