Registration No. 333-

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

FORM S-8

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)

> 103 Carnegie Center, Suite 300 Princeton, New Jersey (Address of Principal Executive Offices)

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

08540

ACASTI PHARMA INC. 2024 EQUITY INCENTIVE PLAN (Full title of the plan)

> **Prashant Kohli Chief Executive Officer** Acasti Pharma Inc. 103 Carnegie Center, Suite 300 Princeton, New Jersey 08540 (Name and Address of Agent for Service)

(609) 322-1602 (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

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

Non-accelerated filer \boxtimes

Accelerated filer	
Smaller reporting company	\boxtimes
Emerging growth company	

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. \Box

(Zip Code)

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

This Registration Statement (the "Registration Statement") on Form S-8 is being filed with the Securities and Exchange Commission (the "Commission") for the purpose of registering the offer and issuance of shares of common stock, par value \$0.0001 per share (the "Common Stock") of Acasti Pharma Inc. (the "Registrant," or the "Company") to certain directors, employees and consultants of the Company and/or its subsidiaries under the Company's 2024 Equity Incentive Plan (as it may be amended from time to time, the "2024 Equity Incentive Plan").

Pursuant to Part I of Form S-8, the information specified under Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the "Securities Act"), and the introductory note to Part I of Form S-8. The documents containing the information specified in Part I of Form S-8 will be delivered to participants in the 2024 Equity Incentive Plan as specified by Rule 428(b)(1) under the Securities Act. Such documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Form S-8, when taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act. Such documents are not required to be, and are not, filed with the Commission either as part of this Registration Statement or as a prospectus supplement pursuant to Rule 424 under the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by the Company with the Commission are incorporated by reference herein:

- (a) The Company's Annual Report on Form 10-K for the year ended March 31, 2024, filed with the Commission on June 21, 2024;
- (b) The Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2024, filed with the Commission on August 9, 2024;
- (c) The Company's Current Reports on Form 8-K (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that relate to such items), filed with the Commission on June 27, 2024, <u>August 16, 2024</u>, <u>September 25, 2024</u>, <u>September 30, 2024</u> and <u>October 7, 2024</u>; and
- (d) The description of the Company's common stock included in the final prospectus dated August 7, 2024, filed with the Commission on August 7, 2024 pursuant to Rule 424(b)(3).

All reports and other documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), but prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be part hereof from the date of filing of such reports and documents, except for the documents, or portions thereof, that are "furnished" rather than filed with the Commission; provided, however, that documents or portions thereof that are furnished and not filed in accordance with the rules of the Commission shall not be deemed to be incorporated by reference herein.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part hereof.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Set forth below is a description of the General Corporation Law of the State of Delaware (the "DGCL"), the Company's Certificate of Incorporation and the Company's Bylaws, as such provisions relate to the indemnification of the Company's directors and officers. This description is intended only as a summary and is qualified in its entirety by reference to the DGCL, the Company's Certificate of Incorporation and the Company's 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, 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.

The Company's Bylaws provide that the Company will indemnify its directors and officers, and may indemnify its employees, agents and any other persons, to the fullest extent permitted by the DGCL, subject to limited exceptions. The Company's Bylaws also provide that the Company 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, the Company has entered into indemnification agreements with each of its directors and executive officers that may be broader than the specific indemnification provisions contained in the DGCL. These indemnification agreements require the Company, among other things, to indemnify its directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require the Company to advance all expenses reasonably and actually incurred by the directors and executive officers in investigating or defending any such action, suit or proceeding. The Company believes 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 the Company's 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. The Company also maintains insurance policies under which its 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 the Company would have the power to indemnify such person against such liability under the provisions of the DGCL.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Number	Description of Document
<u>3.1</u>	Certificate of Incorporation of Acasti Pharma Inc. (incorporated herein by reference to Exhibit 3.3 to the Company's Current Report on Form 8-K filed with the Commission on October 7, 2024)
<u>3.2</u>	Bylaws of Acasti Pharma Inc. (incorporated herein by reference to Exhibit 3.4 to the Company's Current Report on Form 8-K filed with the Commission on October 7, 2024)
<u>4.1</u>	Form of Common Stock Certificate (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Commission on October 7, 2024)
<u>5.1*</u>	Opinion of Hogan Lovells US LLP
<u>10.1</u>	Acasti Pharma Inc. 2024 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on September 30, 2024)

<u>10.3</u>	Form of 2024 Incentive Stock Option Award Agreement under the Acasti Pharma Inc. 2024 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.3 to the Company's Registration Statement on Form S-4 filed with the Commission on June 27, 2024)
<u>10.4</u>	Form of 2024 Non-Qualified Stock Option Award Agreement under the Acasti Pharma Inc. 2024 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.4 to the Company's Registration Statement on Form S-4 filed with the Commission on June 27, 2024)
23.1*	Consent of KPMG LLP, independent registered public accounting firm
23.2*	Consent of Ernst & Young LLP, independent registered public accounting firm
<u>23.3*</u>	Consent of Hogan Lovells US LLP (included in Exhibit 5.1)
24.1*	Power of Attorney (included on signature page hereto)
107*	Filing Fee Table
*	Filed herewith

Item 9. 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 (a)(1)(i) and (a)(1)(ii) 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 this registration statement.

(2) That, for the purpose 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.

(b) 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 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.

(c) 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 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-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Princeton, New Jersey on the 8th day of October, 2024.

ACASTI PHARMA INC.

By:/s/ Prashant KohliName:Prashant KohliTitle:Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Prashant Kohli his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement and any and all related registration statements necessary to register additional securities, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto such 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, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that such 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 of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated below.

Title	Date
Chief Executive Officer and Director (Principal Executive Officer)	October 8, 2024
Principal Financial Officer (Principal Financial and Principal Accounting Officer)	October 8, 2024
Chair of the Board and Director	October 8, 2024
Director	October 8, 2024
Director	October 8, 2024
Director	October 8, 2024
	Chief Executive Officer and Director (Principal Executive Officer) Principal Financial Officer (Principal Financial and Principal Accounting Officer) Chair of the Board and Director Director Director

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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 registration statement on Form S-8 (the "**Registration Statement**"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), relating to the proposed offering of up to 1,350,000 newly issued shares of common stock, par value \$0.0001 per share ("**Common Stock**"), of the Company (the "**Shares**") all of which shares are issuable pursuant to the Company's 2024 Equity Incentive Plan (the "**Plan**"). 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. 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.

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 following (i) effectiveness of the Registration Statement, (ii) issuance of the Shares pursuant to the terms of the Plan, and (iii) receipt by the Company of the consideration for the Shares specified in the applicable resolutions of the Board of Directors of the Company (or a duly authorized committee thereof) and in the Plan, the 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 Registration Statement.

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

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement. 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 incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2024 Equity Incentive Plan of Acasti Pharma Inc. 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. as of and for the year ended March 31, 2023, 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

Montreal, Canada October 8, 2024

Calculation of Filing Fee Tables

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Acasti Pharma Inc.

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
1		Common Stock, par value \$0.0001 per share	Other	1,350,000	\$ 2.91	\$ 3,928,500.00	0.0001531	\$ 601.45
	Total Offering Amounts: Total Fee Offsets: Net Fee Due:				\$ 3,928,500.00		\$ 601.45 \$ 0.00 \$ 601.45	

Offering Note

1

This Registration Statement registers 1,350,000 shares of common stock reserved for issuance under the Acasti Pharma Inc. 2024 Equity Incentive Pan (the "2024 Equity Incentive Plan"). Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), there are also registered hereunder such indeterminate number of additional shares as may become available for issuance pursuant to the 2024 Equity Incentive Plan as a result of the antidilution provisions contained therein, including stock splits and other similar transactions. The Proposed Maximum Offering Price Per Unit, the Maximum Aggregate Offering Price and the Amount of Registration Fee have been estimated solely for purposes of calculating the registration fee in accordance with paragraphs (c) and (h) of Rule 457 of the Securities Act based upon the average of the daily high and low prices of shares of the registrant's common stock on October 1, 2024, as reported on the Nasdaq Capital Market.