UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

FORM S-3

REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

TRAWS PHARMA, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

22-3627252 (IRS Employer Identification Number)

12 Penns Trail Newtown, PA 18940 (267) 759-3680

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Werner Cautreels Chief Executive Officer Traws Pharma, Inc. 12 Penns Trail Newtown, PA 18940 (267) 759-3680

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

Bardia Moayedi, Esq. Christopher L. Tinen, Esq. Snell & Wilmer L.L.P. 3611 Valley Centre Drive, Suite 500 San Diego, CA 92130 (858) 434-5020

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. \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. \boxtimes

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, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

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. \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. \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 Securities Exchange Act of 1934.

Large accelerated filer Non-accelerated filer	Accelerated filer Smaller reporting company Emerging growth company	
	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 Securities Act. \Box

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 of 1933 or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to such Section 8(a), may determine.

information contained in this prospectus is not complete and may be changed. The selling stockholders named in this prospectus may not sell these securities until the Registration ement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not a solicitation of offers to buy these securities in

The information contained in this prospectus is not corr Statement filed with the Securities and Exchange Commi any jurisdiction where such offer or sale is not permitted.

PROSPECTUS

Subject to Completion, dated January 14, 2025



Traws Pharma, Inc. 7,230,301 Shares **Common Stock**

This prospectus relates to the possible resale or other disposition from time to time, in one or more offerings, by the selling stockholders named in this prospectus of up to an aggregate of 7,230,301 shares of our common stock, par value \$0.01 per share ("Common Stock"), which consist of (i) 3,311,052 shares of our Common Stock issuable upon exercise of those Pre-Funded Warrants issued to the selling stockholders pursuant to that certain Securities Purchase Agreement, dated as of December 29, 2024 (the "Purchase Agreement"), between the Company and the selling stockholders and (ii) 3,919,249 shares of our Common Stock issuable upon exercise of those Series A Warrants issued to the selling stockholders pursuant to the Purchase Agreement.

Pursuant to the Purchase Agreement, on December 31, 2024, the Company issued (i) 3,630,205 Class A Units ("Class A Units"), each Class A Unit consisting of (a) one share of Common Stock or one pre-funded warrant to purchase one share of Common Stock ("Pre-Funded Warrant") and (b) one Series A Warrant to purchase one share of Common Stock ("Series A Warrant"), and (ii) 289,044 Class B Units ("Class B Units"), each Class B Unit consisting of one Pre-Funded Warrant and one Series A Warrant. The purchase price per Class A Unit was \$5.103 and the purchase price per Class B Unit was \$5.093.

We agreed to file the registration statement of which this prospectus is a part pursuant to the Purchase Agreement. Additional information with respect to the Purchase Agreement is contained in this prospectus under the headings "Prospectus Summary - Private Placement" and "Selling Stockholders" and in our Current Report on Form 8-K filed with the Securities and Exchange Commission on December 31, 2024.

The selling stockholders or their permitted transferees or other successors-in-interest may, but are not required to, sell, transfer, or otherwise dispose of, any or all of the shares of our Common Stock offered by this prospectus at any time and from time to time in a number of different ways, including sales on any stock exchange or in negotiated transactions, and at varying prices, including fixed prices, at prevailing market prices at the time of sale or disposition, at prices related to the prevailing market price, or at negotiated prices. See "Plan of Distribution" on page 10 for a description of how the selling stockholders may dispose of the shares covered by this prospectus.

We are not selling any shares of our Common Stock under this prospectus and will not receive any of the proceeds from the sale of shares of our Common Stock by the selling stockholders. However, upon any exercise of the Pre-Funded Warrants or Series A Warrants (together, the "Warrants") by payment of cash, we will receive the exercise price of the Warrants. We cannot predict when and in what amounts, or if, the Warrants will be exercised by payments of cash and it is possible that the Warrants may expire and never be exercised or may be exercised via cashless exercise, in which case we would not receive any cash proceeds.

We have agreed to pay certain expenses related to the registration of the offer and sale by the selling stockholders of our Common Stock pursuant to the registration statement of which this prospectus forms a part. The selling stockholders will bear all commissions, discounts, concessions and other selling expenses, if any, in connection with the sale of their shares of our Common Stock covered by this prospectus.

Our Common Stock is listed on The NASDAQ Capital Market under the symbol "TRAW." On January 10, 2025, the closing price of our Common Stock was \$8.06 per share.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make you investment decision.

Investing in our Common Stock involves a high degree of risk. You should carefully read the information contained under the heading "Risk Factors" on page 5 of this prospectus, and under similar headings in the documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is

, 2025.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the U.S. Securities and Exchange Commission (the "SEC"). By using this registration process, the selling stockholders named in this prospectus may offer and sell shares of our Common Stock from time to time in one or more transactions, as described under "Plan of Distribution."

This prospectus provides you with a general description of the securities that the selling stockholders named herein may offer. We may add, update or change in a prospectus supplement any of the information contained in this prospectus or the documents incorporated by reference. For further information about our business and our securities, you should refer to the registration statement and the reports incorporated by reference in this prospectus, as described in "Additional Information" and "Incorporation of Certain Information by Reference." This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Additional Information."

You must not rely upon any information or representation not contained or incorporated by reference in this prospectus. You should rely only on the information contained in this prospectus and in any prospectus supplement (including in any documents incorporated by reference herein or therein). You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or securities are sold on a later date. Neither we, nor the selling stockholders, have authorized any other person to provide you with different or additional information. Neither we, nor the selling stockholders, take responsibility for, nor can we provide assurance as to the reliability of, any other information that others may provide.

This prospectus may be used only in jurisdictions where offers and sales of these securities are permitted. Except as otherwise set forth in this prospectus, neither we nor the selling stockholders have taken any action to permit a public offering of these securities outside the United States or to permit the possession or distribution of this prospectus outside the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about and observe any restrictions relating to the offering of these securities and the distribution of this prospectus outside the United States.

Traws Pharma, Inc. and its subsidiaries are collectively referred to herein as "Traws," "Traws Pharma," "the Company," "we," "us," and "our," unless otherwise specified or the context indicates otherwise.

PROSPECTUS SUMMARY

This summary highlights selected information appearing elsewhere or incorporated by reference into this prospectus and may not contain all of the information that you need to consider in making your investment decision. You should carefully read this prospectus, any applicable prospectus supplement, any related free writing prospectus that we have authorized for use in connection with this offering, and any documents incorporated by reference, including the information contained under the heading "Risk Factors" beginning on page 5 in this prospectus and under similar headings in our recent <u>Annual Report on Form 10-K for the fiscal year ended December 31, 2023</u>, our subsequent Quarterly Reports on Form 10-Q for the quarters ended <u>March 31, 2024</u>, June 30, 2024 and <u>September 30, 2024</u>, or our Current Reports on Form 8-K following the most recent Annual Report on Form 10-K before making an investment decision.

The Company

Traws Pharma, Inc. ("Traws Pharma"), formerly known as Onconova Therapeutics, Inc. (the "Company"), was incorporated in the State of Delaware on December 22, 1998 and commenced operations on January 1, 1999. On April 1, 2024, the Company acquired Trawsfynydd Therapeutics, Inc., a Delaware corporation ("Trawsfynydd"), and the name change to Traws Pharma, Inc. was effected. Traws Pharma is a clinical stage biopharmaceutical company aiming to address unmet medical needs in respiratory viral diseases and cancer. The viral respiratory disease program includes a single oral dose CAP dependent inhibitor candidate for influenza, and an oral antiviral candidate designed to target mPro protease without the need for a CYP inhibitor for SARS-CoV-2. In the cancer program, Traws Pharma is developing the novel, proprietary multi-kinase CDK4-plus inhibitor narazaciclib for refractory endometrial cancer and potentially for other cancers.

Our principal executive offices are located at 12 Penns Trail, Newtown, Pennsylvania 18940, and our telephone number is (267) 759-3680. Our website address is www.trawspharma.com. The information on, or that can be accessed through, our website is not part of this prospectus.

Private Placement

On December 29, 2024, we entered into a Securities Purchase Agreement (the "Purchase Agreement") with the selling stockholders named in this prospectus, pursuant to which we issued and sold to the selling stockholders an aggregate of (i) 3,630,205 Class A Units ("Class A Units"), each Class A Unit consisting of (a) one share of common stock, par value \$0.01 per share ("Common Stock"), or one pre-funded warrant to purchase one share of Common Stock ("Pre-Funded Warrant") and (b) one Series A Warrant to purchase one share of Common Stock ("Series A Warrant"), and (ii) 289,044 Class B Units ("Class B Units"), each Class B Unit consisting of one Pre-Funded Warrant and one Series A Warrant. The purchase price per Class A Unit was \$5.103 and the purchase price per Class B Unit was \$5.093.

Following stockholder approval of the exercise of the Series A Warrants, as required pursuant to Nasdaq listing rules, as well as certain beneficial ownership limitations (discussed below), the Series A Warrants have an exercise price of \$13.42 per share of Common Stock, will be exercisable six months after issuance and will expire on the earlier of (a) subject to the fulfilment of the Equity Conditions (as defined in the Purchase Agreement), thirty Trading Days (as defined in the Purchase Agreement) after the last of the following data readouts to occur, as announced by the Company: (i) Ferret animal model Bird Flu data, (ii) non-human primate Bird Flu data, or (iii) Phase 2a Influenza A human clinical data, and (b) the 5-year anniversary of the closing date of the offering. The exercise price of the Series A Warrants will be subject to adjustment for stock splits, reverse splits, and similar capital transactions as described in the Series A Warrants. Following stockholder approval of the exercise of the Pre-Funded Warrants, as required pursuant to Nasdaq listing rules, as well as certain ownership limitations (discussed below), the Pre-Funded Warrants are exercisable and do not expire.

A holder will not have the right to exercise any portion of the Series A Warrants or the Pre-Funded Warrants if the holder (together with its affiliates) would beneficially own in excess of 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Series A Warrants or the Pre-Funded Warrants, respectively. However, any holder may increase or decrease such percentage to any other percentage not in

excess of 19.99% upon notice to the Company, provided that any increase in such percentage shall not be effective until 61 days after such notice (the "Beneficial Ownership Limitation"). If not previously exercised in full, at the expiration of their terms, the Series A Warrants will be automatically exercised via cashless exercise.

The Series A Warrants and the Pre-Funded Warrants provide that holders will have the right to participate in any rights offering or distribution of assets, and will have the right to receive certain consideration in fundamental transactions, together with the holders of Common Stock on an as-exercised basis. In addition, upon a fundamental transaction, the holder of either of the Series A Warrants shall have the right to receive payment in cash, or under certain circumstances in other consideration, from the Company at the Black Scholes value as described in the Series A Warrants.

The Series A Warrants, Pre-Funded Warrants, and the shares of Common Stock underlying such warrants were offered in the private placement pursuant to an exemption from the registration requirements of Section 5 of the Securities Act of 1933, as amended (the "Securities Act"), contained in Section 4(2) thereof and/or Regulation D thereunder. Under the terms of the Purchase Agreement, we agreed to prepare and file, on or before January 15, 2025, a registration statement with the SEC to register for resale the shares of our Common Stock issuable upon exercise of the Pre-Funded Warrants and Series A Warrants sold and issued to the selling stockholders in the private placement, and to use commercially reasonable efforts to cause such registration statement to be declared effective within a specified time period set forth in the Purchase Agreement.

Additional information with respect to the Purchase Agreement and the private placement is contained in this prospectus under the heading "Selling Stockholders" and in our Current Report on Form 8-K filed with the Securities and Exchange Commission on December 31, 2024.

Reverse Stock Split

In September 2024, our board of directors approved a one-for-25 reverse stock split of the outstanding shares of Common Stock (the "Reverse Stock Split"). Each 25 shares of Common Stock issued and outstanding immediately prior to the Reverse Stock Split automatically reclassified, combined, converted and changed into one fully paid and nonassessable share of Common Stock. In addition, a proportionate adjustment was made to the per share exercise price and the number of shares issuable upon the exercise of all outstanding warrants and stock options entitling the holders thereof to purchase shares of the Common Stock, and the number of shares reserved for issuance pursuant to our 2021 Incentive Compensation Plan (as amended and restated) were reduced proportionately. All Common Stock, per share and related information presented in the financial statements and accompanying notes which are incorporated by reference into the registration statement of which this prospectus is a part from documents filed with the SEC prior to the Reverse Stock Split do not reflect the Reverse Stock Split and all Common Stock, per share and related information presented in the financial statements and accompanying notes which are incorporated by reference into the registration statement of which this prospectus is a part from documents filed with the SEC prior to the Reverse Stock Split do not reflect the Reverse Stock Split and all Common Stock, per share and related information presented in the financial statements and accompanying notes which are incorporated by reference into the registration statement of which this prospectus is a part from documents that were filed with the SEC after the Reverse Stock Split have been retroactively adjusted to reflect the Reverse Stock Split.

	THE OFFERING
Shares of Common Stock offered for resale by the Selling	
Stockholders:	Up to an aggregate of 7,230,301 shares of our Common Stock, which consist of (i) 3,311,052 shares of our Common Stock issuable upon exercise of the Pre-Funded Warrants issued to the selling stockholders pursuant to the Purchase Agreement and (ii) 3,919,249 shares of our Common Stock issuable upon exercise of the Series A Warrants issued to the selling stockholders pursuant to the Purchase Agreement.
Use of Proceeds:	We will not receive any of the proceeds from the sale of any of the shares of our Common Stock that may be offered from time to time by the selling stockholders. However, upon any exercise of the Pre- Funded Warrants or Series A Warrants (together, the "Warrants") by payment of cash, we will receive the exercise price of the Warrants. We cannot predict when and in what amounts, or if, the Warrants will be exercised by payments of cash and it is possible that the Warrants may expire and never be exercised or may be exercised via cashless exercise, in which case we would not receive any cash proceeds. We currently expect to use the proceeds received from the exercise of the Warrants, if any, for the development of our product candidates and general working capital purposes.
Risk Factors:	Investing in our Common Stock involves risks. Please refer to the information contained under the heading "Risk Factors" beginning on page 5 of this prospectus for a discussion of factors you should carefully consider before investing our securities.
NASDAQ Capital Market:	TRAW

RISK FACTORS

An investment in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below as well as those described under "Risk Factors" contained in our most recent Annual Report on Form 10-K, and in our updates to those Risk Factors in our Quarterly Reports on Form 10-Q or Current Reports on Form 8-K following the most recent Annual Report on Form 10-K, and in all other information appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement. The material risks and uncertainties that management believes affect us will be described in those documents.

In addition to those risk factors, there may be additional risks and uncertainties of which management is not aware or focused on or that management deems immaterial. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment. This prospectus is qualified in its entirety by these risk factors.

A sale of a substantial number of shares of Common Stock by our stockholders may cause the price of our Common Stock to decline.

If our stockholders, including the selling stockholders named in this prospectus, sell, or the market perceives that our stockholders intend to sell, substantial amounts of our Common Stock in the public market, the price of our Common Stock may decline. The shares of Common Stock offered under this prospectus and any prospectus supplement represent a significant number of shares in comparison to the number of shares of our Common Stock currently outstanding, and if sold in the market all at once or at approximately the same time, could depress the market price of our Common Stock. Additionally, such conditions may make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem reasonable or appropriate.

We will not receive any proceeds from the sale of the shares of Common Stock by the selling stockholders covered by this prospectus.

We are registering the shares of Common Stock that were, or may be, issued by us to the selling stockholders upon exercise of the Warrants to permit the resale of these shares of Common Stock from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of Common Stock.

We are currently listed on The Nasdaq Capital Market. If we are unable to maintain listing of our securities on Nasdaq or any stock exchange, our stock price could be adversely affected and the liquidity of our stock and our ability to obtain financing could be impaired and it may be more difficult for our stockholders to sell their securities.

We are required to meet certain qualitative and financial tests to maintain the listing of our securities on The Nasdaq Capital Market. As previously reported in a Current Report on Form 8-K filed with the Securities and Exchange Commission on November 22, 2024, we were notified on November 20, 2024 by Nasdaq that we were not in compliance with the minimum stockholders' equity requirement under Nasdaq Listing Rule 5550(b)(1) for continued listing on The Nasdaq Capital Market because our stockholders' deficit of approximately \$2.033 million, as reported in our Quarterly Report on Form 10-Q for the period ended September 30, 2024, is below the required minimum stockholders' equity of \$2.5 million, and as of the date of the notification, we did not meet the alternatives of market value of listed securities or net income from continuing operations. In accordance with the notification, the Nasdaq Staff determined to delist the Company's securities from The Nasdaq Capital Market.

We requested a hearing before the Nasdaq Hearings Panel (the "Panel") and presented our plan of compliance at a hearing held on November 14, 2024. The Panel granted an extension to February 18, 2025 to regain compliance with the minimum stockholders' equity requirement under Nasdaq Listing Rule 5550(b)(1). We are working with our advisors to implement our plan of compliance, including through the recent closing of the private placement discussed elsewhere in this prospectus. However, no assurance can be provided that we will be able to maintain our Nasdaq listing.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and each prospectus supplement, including the documents that we incorporate herein and therein by reference, contains or may contain forward-looking statements as that term is defined in the federal securities laws. The events described in forward-looking statements contained in this prospectus, including the documents that we incorporate by reference herein, may not occur. Generally, these statements relate to our business plans or strategies, projected or anticipated benefits or other consequences of our plans or strategies, financing plans, projected or anticipated benefits from acquisitions that we may make, or projections involving anticipated revenues, earnings or other aspects of our operating results or financial position, and the outcome of any contingencies. Any such forward-looking statements are based on current expectations, estimates and projections of management. We intend for these forward-looking statements to be covered by the safe-harbor provisions for forward-looking statements. Words such as "anticipate," "expect," "project," "intend," "believe," "may," "will," "should," "plan," "could," "continue," "target," "contemplate," "estimate," "forecast," "guidance," "predict," "possible," "potential," "pursue," "likely," and their opposites and similar expressions are intended to identify forward-looking statements. All statements, other than historical facts, including statements regarding estimations of projected cash runway; our future product development plans; the potential, safety, efficacy, and regulatory and clinical progress of our product candidates, including the anticipated timing for initiation of clinical trials and release of clinical trial data and the expectations surrounding potential regulatory submissions, approvals and timing thereof; and any assumptions underlying any of the foregoing, are forward-looking statements.

Forward looking statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward looking statements. We believe that these factors include, but are not limited to, the factors that we identify in any of the documents incorporated or deemed incorporated into this prospectus and the registration statement by reference, including in our <u>Annual Report on Form 10-K for the year ended December 31, 2023</u> and in any of our subsequent Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and <u>Annual Reports on Form 10-K for any year ended after December 31, 2023</u>.

You should also consider carefully the information set forth in the section titled "Risk Factors" or elsewhere in this prospectus and the documents incorporated or deemed incorporated herein by reference, including in our most recent Annual Report on Form 10-K and in our updates to those risk factors in our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and other factors described elsewhere in this prospectus. Any one or more of these uncertainties, risks, factors and other influences could materially affect our results of operations and whether forward-looking statements made by us ultimately prove to be accurate. Our actual results, performance and achievements could differ materially from those expressed or implied in these forward-looking statements. Except as otherwise required by law, we undertake no obligation to publicly update or revise any forward-looking statements, whether from new information, future events or otherwise.



USE OF PROCEEDS

The net proceeds from any sale of the shares of Common Stock offered by this prospectus will be received by the selling stockholders. We will not receive any proceeds from the sale of our Common Stock by the selling stockholders. However, upon any exercise of the Warrants by payment of cash, we will receive the exercise price of the Warrants.

We cannot predict when and in what amounts, or if, the Warrants will be exercised by payments of cash and it is possible that the Warrants may expire and never be exercised or may be exercised via cashless exercise, in which case we would not receive any cash proceeds. We currently expect to use the proceeds received from the exercise of the Warrants, if any, for the development of our product candidates and general working capital purposes.

SELLING STOCKHOLDERS

The term "selling stockholders" includes the stockholders listed below and their transferees, pledges, donees or other successors-in-interest who may acquire shares from a selling stockholder as a gift, pledge, partnership distribution or other non-sale related transfer after the date of this prospectus. Information concerning the selling stockholders may change after the date of this prospectus and changed information will be presented in a supplement to this prospectus if and when required. Undefined terms in this section have the meanings set forth in the Purchase Agreement.

This prospectus covers the offering for resale from time to time, in one or more offerings, of up to an aggregate of 7,230,301 shares of our Common Stock, which consist of (i) 3,311,052 shares of our Common Stock issuable upon exercise of the Pre-Funded Warrants, and (ii) 3,919,249 shares of our Common Stock issuable upon exercise of the Series A Warrants.

We agreed to file the registration statement of which this prospectus is a part pursuant to the Purchase Agreement. Additional information with respect to the Purchase Agreement is contained in this section, in this prospectus under the heading "Prospectus Summary — Private Placement," and in our Current Report on Form 8-K filed with the SEC on December 31, 2024.

The table below sets forth (i) the name of each selling stockholder, (ii) the number of shares of Common Stock beneficially owned by each selling stockholder as of January 10, 2025 (solely for purposes of the table below, treating all 7,230,301 Pre-Funded Warrants and Series A Warrants as if they had been exercised into an aggregate of 7,230,301 shares of our Common Stock as of January 10, 2025 and disregarding certain of the terms of the Pre-Funded Warrants and Series A Warrants that would prevent or limit such conversion as further described in the next paragraph), (iii) the number of shares of Common Stock offered by each selling stockholder hereunder, (iv) the number of shares of Common Stock that will be beneficially owned by each selling stockholder following the completion of this offering (assuming each selling stockholder sells all of the shares of our Common Stock that are being offered by such selling stockholder pursuant to this prospectus and does not acquire beneficial ownership of any additional shares of Common Stock during this offering), and (v) the percentage of Common Stock that will be beneficially owned by each selling stockholder following the completion of this offering (assuming each selling stockholder sells all of the shares of our Common Stock that are being offered by such selling stockholder pursuant to this prospectus and does not acquire beneficial ownership any additional shares of Common Stock during this offering), based on 3,650,731 shares of our Common Stock outstanding as of January 10, 2025 and, solely for purposes of the table below, treating all 7,230,301 Pre-Funded Warrants and Series A Warrants as if they had been exercised into 7,230,301 shares of our Common Stock that were also outstanding as of January 10, 2025 and disregarding certain of the terms of the Pre-Funded Warrants and Series A Warrants that would prevent or limit such conversion as further described in the next paragraph. Stock information with respect to ownership is based upon information obtained from the selling stockholders.

Solely for purposes of the table below, the information under the headings "Shares of Common Stock Owned Prior to the Offering" and "Shares of Common Stock Owned After the Offering" disregards the Beneficial Ownership Limitation and treats all 7,230,301 Pre-Funded Warrants and Series A Warrants as if they had been exercised into 7,230,301 shares of our Common Stock as of January 10, 2025. Accordingly, to that extent and solely for purposes of the table below, each selling stockholder's beneficial ownership of our Common Stock has not been determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulation promulgated thereunder. Each selling stockholder and its affiliates and other aggregation persons or entities disclaim beneficial ownership of any shares of our Common Stock that are reflected in the table below as beneficially owned by such selling stockholder or any of its affiliates and other aggregation person or entities solely to the extent that the Beneficial Ownership Limitation has been disregarded.

The selling stockholders are not making any representation that any shares of Common Stock covered by this prospectus will be offered for sale. Because each selling stockholder may dispose of all, none or some portion of the shares of Common Stock covered by this prospectus, no estimate can be given as to the number of shares that will be owned by a selling stockholder upon termination of this offering. In addition, the selling stockholders may have sold, transferred or otherwise disposed of their shares of Common Stock in transactions exempt from the registration requirements of the Securities Act after the date on

which the information in the table is presented. For purposes of the table below, however, we have assumed that after termination of this offering, none of the shares of our Common Stock registered for resale under this prospectus will be owned by the selling stockholders, and we have further assumed that the selling stockholders will not acquire beneficial ownership of any additional shares of our Common Stock during this offering.

To our knowledge, except as indicated in the footnotes to the below table, each selling stockholder named in the table has sole voting and investment power with respect to all shares of our Common Stock shown as owned by such stockholder in the table. Except as described below, none of the selling stockholders has had any position, office or other material relationship with us or any of our predecessors or affiliates within the past three years. In addition, based on information provided to us, none of the selling stockholders that are affiliates of broker-dealers, if any, purchased the shares of our Common Stock outside the ordinary course of business or, at the time of their acquisition of such shares, had any agreements, understandings or arrangements with any other persons, directly or indirectly, to dispose of the shares. Information concerning the selling stockholders may change from time to time, and any changed information will be set forth in supplements to this prospectus to the extent required.

	Shares of Common Stock Owned Prior to the Offering		Maximum Number of Shares of Common Stock to be Sold	Shares of Common Stock Owned After the Offering	
Name and Address of Selling Stockholder	Number	Percent (%)	Pursuant to this Prospectus	Number	Percent (%)
Perceptive Life Sciences Master Fund, Ltd	1,795,473	16.5	1,795,473	0	*
Alyeska Master Fund L.P	1,436,377	13.2	1,436,377	0	*
3i LP	718,188	6.6	718,188	0	*
Ikarian Healthcare Master Fund LP	766,308	7.0	766,308	0	*
Boothbay Diversified Alpha Master Fund LP	122,448	1.1	122,448	0	*
Boothbay Absolute Return Strategies LP	332,158	3.1	332,158	0	*
Alto Opportunity Master Fund, SPC – Segregated Master					
Portfolio B	628,415	5.8	628,415	0	*
Intracoastal Capital LLC	359,093	3.3	359,093	0	*
Kingsbrook Opportunities Master Fund LP	35,909	*	35,909	0	*
CVI Investments, Inc	457,844	4.2	457,844	0	*
OrbiMed Private Investments VIII, LP ⁽¹⁾	798,227	7.3	192,696	605,531	5.6
TPAV LLC ⁽²⁾	798,227	7.3	192,696	605,531	5.6
Werner Cautreels ⁽³⁾	192,696	1.8	192,696	0	*

* Less than 1%.

- (1) These shares are held of record by OrbiMed Private Investments VIII, LP ("OPI VIII"). OrbiMed Capital GP VIII LLC ("OrbiMed GP") is the general partner of OPI VIII. OrbiMed Advisors LLC ("OrbiMed Advisors") is the managing member of OrbiMed GP. By virtue of such relationships, OrbiMed Advisors and OrbiMed GP may be deemed to have voting power and investment power over the securities held by OPI VIII and as a result, may be deemed to have beneficial ownership over such securities. OrbiMed Advisors exercises voting power and investment power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the securities held by OPI VIII.
- (2) Nikolay Savchuk is the sole manager on the Board of Managers of TPAV, LLC. Nikolay Savchuk disclaims beneficial ownership of the securities held by TPAV, LLC except to the extent of his pecuniary interest therein.

(3) Werner Cautreels is the Chief Executive Officer of the Company and serves on our Board of Directors.

PLAN OF DISTRIBUTION

Each selling stockholder of the securities named herein may, from time to time, sell any or all of their securities covered hereby on any stock exchange, market or trading facility on which the securities are traded, in private transactions or otherwise. These sales may be at fixed or negotiated prices or at market prices prevailing at the time of sale. A selling stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the selling stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- · a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the securities or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The selling stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders may pledge or grant a security interest in some or all of the shares of Common Stock owned by them and, if any of them defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell the shares of Common Stock from time to time pursuant to this prospectus or any supplement or amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of Common Stock in other circumstances in which case the transferees, donees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In



such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. We are not aware that any selling stockholder has any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

We are required to pay certain fees and expenses incurred by us incident to the registration of the securities. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the selling stockholders pursuant to Rule 144 without any volume or manner-of-sale limitations or (ii) the date on which all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the shares of Common Stock may not simultaneously engage in market making activities with respect to the Common Stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the Common Stock by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders.

LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon by Snell & Wilmer L.L.P.

EXPERTS

The consolidated financial statements of Traws Pharma, Inc. (formerly Onconova Therapeutics, Inc.), appearing in Traws Pharma, Inc.'s <u>Annual Report on Form 10-K for the year ended December 31, 2023</u> have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements), included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC 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, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.



ADDITIONAL INFORMATION

This prospectus is part of a Registration Statement on Form S-3 that we have filed with the SEC relating to the shares of our Common Stock being offered hereby. This prospectus does not contain all of the information in the Registration Statement and its exhibits. The Registration Statement, its exhibits and the documents incorporated by reference in this prospectus and their exhibits, all contain information that is material to the offering of the Securities hereby. Whenever a reference is made in this prospectus to any of our contracts or other documents, the reference may not be complete. You should refer to the exhibits that are a part of the Registration Statement in order to review a copy of the contract or documents.

The SEC maintains an Internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the SEC. The address of that site is http://www.sec.gov. The Registration Statement and the exhibits are available through the SEC's website.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Such reports, proxy statements and other information will be available at the website of the SEC referred to above. Additionally, you may access our filings with the SEC through our website at http://www.trawspharma.com. The information on our website is not part of this prospectus.

We will provide you without charge, upon your oral or written request, with a copy of any or all reports, proxy statements and other documents we file with the SEC, as well as any or all of the documents incorporated by reference in this prospectus or the Registration Statement (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into such documents). Requests for such copies should be directed to:

Investor Relations Traws Pharma, Inc. 12 Penns Trail Newtown, PA 18940 (267) 759-3680

You should rely only on the information in this prospectus and the additional information described above and under the heading "Incorporation of Certain Information by Reference," below. We have not, and the selling stockholders have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely upon it. The selling stockholders are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this prospectus was accurate on the date of the front cover of this prospectus only, and that any information we have incorporated by reference was accurate on the date of the document incorporated by reference only. Our business, financial condition, results of operations and prospects may have changed since such date.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it into this prospectus, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede information contained in documents filed earlier with the SEC or contained in this prospectus and any accompanying prospectus supplement.

We incorporate by reference the documents listed below that we have previously filed with the SEC:

- our <u>Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on</u> <u>April 1, 2024, as amended by Form 10-K/A, filed with the SEC of April 29, 2024;</u>
- our Quarterly Reports on Form 10-Q for the quarters ended (i) <u>March 31, 2024, filed with the SEC</u> on May 15, 2024, (ii) <u>June 30, 2024, filed with the SEC on August 15, 2024</u>, and (iii) <u>September 30, 2024, filed with the SEC on November 14, 2024</u>;
- our Current Reports on Form 8-K filed on <u>April 4, 2024, May 22, 2024, June 17, 2024, June 21, 2024, June 28, 2024, July 19, 2024, August 23, 2024, September 17, 2024, September 27, 2024, November 1, 2024, November 22, 2024, December 20, 2024 and December 31, 2024; and
 </u>
- the description of our Common Stock contained in our registration statement on Form 8-A filed with the SEC on July 23, 2013 (Registration no. 001-36020), including any amendment or report filed for the purpose of updating such description, and Exhibit 4.22 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on March 27, 2020.

All reports and other documents that we file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the Registration Statement but before the termination of the offering of the securities hereunder will also be considered to be incorporated by reference into this prospectus from the date of the filing of these reports and documents, and will supersede the information herein; provided, however, that all reports or portions thereof that we "furnish" to the SEC will not be considered incorporated by reference into this prospectus. We undertake to provide without charge to each person (including any beneficial owner) who receives a copy of this prospectus, upon written or oral request, a copy of all of the preceding documents that are incorporated by reference (other than exhibits, unless the exhibits are specifically incorporated by reference into these documents). You may request a copy of these materials in the manner set forth under the heading "Additional Information," above.



7,230,301 Shares

Common Stock



PROSPECTUS

, 2025

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

Set forth below is an estimate (except in the case of the registration fee) of the amount of fees and expenses to be incurred in connection with the issuance and distribution of the offered securities registered hereby, other than underwriting discounts and commission, if any, incurred in connection with the sale of the offered securities. All such amounts will be borne by Traws Pharma, Inc.

SEC Registration Fee	\$ 9,066
Accounting Fees and Expenses	\$35,000
Legal Fees and Expenses	\$40,000
Miscellaneous Fees and Expenses	\$10,000
Total	\$94,066

Item 15. Indemnification of Directors and Officers.

The Company is incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties 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 such corporation), by reason of the fact that such person was an officer, director, employee or agent of such corporation, or is or was serving at the request of such person as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be 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 that his or her conduct was illegal. A Delaware corporation may indemnify any persons who are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses which such officer or director has actually and reasonably incurred. Our certificate of incorporation and amended and restated bylaws provide for the indemnification of our directors and officers to the fullest extent permitted under the Delaware General Corporation Law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- transaction from which the director derives an improper personal benefit;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- · unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

The Company's amended and restated certificate of incorporation, as amended, includes such a provision. Expenses incurred by any officer or director in defending any such action, suit or proceeding in advance of its final disposition shall be paid by the Company upon delivery to us of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by the Company.

As permitted by the Delaware General Corporation Law, the Company has entered into indemnification agreements with its directors and executive officers. These agreements, among other things, require the Company to indemnify each director and officer to the fullest extent permitted by law and advance expenses to each indemnitee in connection with any proceeding in which indemnification is available.

At present, there is no pending litigation or proceeding involving any of the Company's directors or executive officers as to which indemnification is required or permitted, and the Company is not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

The Company maintains an insurance policy covering its officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act, or otherwise.

Item 16. Exhibits.

The exhibits required by Item 601 of Regulation S-K and Item 16 of this Registration Statement are listed in the Exhibit Index immediately preceding the signature page and such list is incorporated herein by reference.

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 this 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% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table 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 (i), (ii) and (iii) do not apply if the registration statement is on Form S-3 and 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 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.

(4) That, for the purpose of determining liability 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

(b) 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 that is incorporated by reference in this 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 Act and will be governed by the final adjudication of such issue.

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EXHIBIT INDEX

Exhibit	Description
4.1	Form of Series A Warrant issued to the selling stockholders (incorporated herein by reference to
	Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on December 31,
	<u>2024).</u>
4.2	Form of Pre-Funded Warrant issued to the selling stockholders (incorporated herein by reference
	to Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the SEC on
	<u>December 31, 2024).</u>
5.1	<u>Opinion of Snell & Wilmer L.L.P.</u>
10.1	Form of Securities Purchase Agreement entered into by and between the Company and the
	selling stockholders on December 29, 2024 (incorporated herein by reference to Exhibit 10.1 to
10.2	the Company's Current Report on Form 8-K filed with the SEC on December 31, 2024).
10.2	Form of Stockholder Support Agreement entered into by and between the Company and certain of the selling stockholders on December 29, 2024 (incorporated herein by reference to
	Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the SEC on December 31.
	2024).
23.1	Consent of Ernst & Young LLP.
23.2	Consent of EisnerAmper LLP.
23.3	Consent of Snell & Wilmer L.L.P. (included in Exhibit 5.1).
24.1	Power of Attorney (included on Signature Page).

107 <u>Calculation of Filing Fee Table</u>

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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 Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Newtown, Commonwealth of Pennsylvania, on this January 14, 2025.

TRAWS PHARMA, INC.

By: /s/ Werner Cautreels

Name: Werner Cautreels Title: Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Werner Cautreels and Mark Guerin, and each of them, as his or her true and lawful agent, proxy and attorney-in-fact, each acting alone, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign, and file with the SEC any and all amendments (including post-effective amendments) to this Registration Statement together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this Registration Statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

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.

Signature	Title	Date		
/s/ Werner Cautreels Werner Cautreels	Chief Executive Officer and Director (Principal Executive Officer)	January 14, 2025		
/s/ Mark Guerin Mark Guerin	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	January 14, 2025		
/s/ Iain Dukes Iain Dukes	Chairman of the Board	January 14, 2025		
/s/ Jack Stover Jack Stover	Director	January 14, 2025		
/s/ Nikolay Savchuk Nikolay Savchuk	Director	January 14, 2025		
/s/ Trafford Clarke Trafford Clarke	Director	January 14, 2025		
/s/ Teresa Shoemaker Teresa Shoemaker	Director	January 14, 2025		
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SNELL & WILMER

January 14, 2025

Traws Pharma, Inc. 12 Penns Trail Newtown, PA 18940

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Traws Pharma, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-3 on the date hereof (as amended from time to time, the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), on the date hereof.

The Registration Statement relates to the resale or other disposition by the selling stockholders named in the prospectus accompanying the Registration Statement (collectively, the "Selling Stockholders") of 7,230,301 shares (the "Shares") of the Company's common stock, par value \$0.01 per share ("Common Stock"), which consist of (i) 3,311,052 shares of Common Stock issuable by the Company upon exercise of the Pre-Funded Warrants issued to the Selling Stockholders pursuant to that certain Securities Purchase Agreement, dated as of December 29, 2024 (the "Purchase Agreement"), between the Company and Selling Stockholders and (ii) 3,919,249 shares of Common Stock issuable by the Company upon exercise of the Series A Warrants issued to the Selling Stockholders pursuant to the Purchase Agreement.

This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act in connection with the filing of the Registration Statement. All capitalized terms used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this letter, we have examined originals, or copies certified or otherwise identified to our satisfaction, of (i) the Tenth Amended and Restated Certificate of Incorporation of the Company, as amended (the "Company Charter"), (ii) the Registration Statement, (iii) the Securities Purchase Agreement, (iii) the Pre-Funded Warrants, (iv) the Series A Warrants, and (iv) such other corporate documents and records as we deemed appropriate for purposes of the opinions set forth herein. For the purpose of rendering this opinion, we have made such factual and legal examinations as we deemed necessary under the circumstances, and in that connection therewith we have examined, among other things, originals or copies, certified or otherwise identified to our satisfaction, of such documents, corporate records, certificates of public officials, certificates of officers or other representatives of the Company, and other instruments and have made such inquiries as we have deemed appropriate for the purpose of rendering this opinion.

Snell & Wilmer | 3611 Valley Centre Drive | Suite 500 | San Diego, CA 92130

SWLAW.COM

SNELL & WILMER

In our examination, we have assumed without independent verification the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as facsimile, electronic, certified, conformed or photostatic copies, and the authenticity of the originals of such copies. In making our examination of executed documents, we have assumed that the parties thereto, other than the Company, had the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and the execution and delivery by such parties of such documents and the validity and binding effect thereof on such parties. Our opinions are subject to applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and similar laws affecting creditors' rights and remedies generally, and subject, as to enforceability, to general principles of equity, including principles of commercial reasonableness, good faith and fair dealing (regardless of whether enforcement is sought in a proceeding at law or in equity). As to any facts material to the opinions expressed herein which were not independently established or verified, we have relied upon oral or written statements and representations of officers or other representatives of the Company and others. We have also assumed that (i) the Registration Statement and any amendments thereto will have become effective and comply with all applicable laws and no stop order suspending the Registration Statement and (ii) all of the Shares will be offered and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and any applicable prospectus supplement.

On the basis of, and in reliance on, the foregoing examination and subject to the assumptions, exceptions, qualifications and limitations contained herein, we are of the opinion that the Shares to be resold by the Selling Stockholders have been duly authorized and, if and when issued and delivered by the Company against payment of the consideration set forth in the Purchase Agreement, Pre-Funded Warrants, and/or Series A Warrants (as applicable), will be validly issued, fully paid and non-assessable.

The opinion expressed herein is limited to the Delaware General Corporation Law and reported judicial decisions applicable thereto and we express no opinion as to laws of any other jurisdiction.

We assume no obligation to update or supplement this opinion if any applicable laws change after date of this opinion or if we become aware after the date of this opinion of any facts, whether existing before or arising after the date hereof, that might change the opinions expressly so stated. Without limiting the generality of the foregoing, we neither express nor imply any opinion regarding the contents of the Registration Statement, other than as expressly stated herein with respect to the Shares.

We are opining only as to matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is rendered as of the date hereof and is based upon currently existing statutes, rules, regulations and judicial decisions. We disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments that affect any matters or opinions set forth herein.

We hereby consent to the filing of this opinion letter with the Commission as Exhibit 5.1 to the Registration Statement filed by the Company. We also consent to the reference to our firm under the heading "Legal Matters" in the Prospectus. In giving such consent, we do not thereby concede that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Snell & Wilmer L.L.P. Snell & Wilmer L.L.P.

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) and related Prospectus of Traws Pharma, Inc. (formerly Onconova Therapeutics, Inc.) for the registration of 7,230,301 shares of its common stock and to the incorporation by reference therein of our report dated April 1, 2024, with respect to the consolidated financial statements of Traws Pharma, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2023, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Philadelphia, Pennsylvania January 14, 2025

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement of Traws Pharma, Inc. on Form S-3 to be filed on or about January 14, 2025 of our report dated June 17, 2024, on our audits of the financial statements of Trawsfynydd Therapeutics, Inc. as of December 31, 2023 and 2022 and for each of the years then ended, which report was included in the Form 8-K/A filed June 17, 2024. Our report includes an explanatory paragraph about the existence of substantial doubt concerning Trawsfynydd Therapeutics, Inc.'s ability to continue as a going concern.

/s/ EisnerAmper LLP

EISNERAMPER LLP Philadelphia, Pennsylvania January 14, 2025

CALCULATION OF FILING FEE TABLES

Form S-3 (Form Type)

Traws Pharma, Inc. (Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

	G	Second Class Title	F	A	D	D	E. D.t.	A		
	Security	Security Class Title	Fee	Amount	Proposed	Proposed	Fee Rate	Amount of		
	Туре		Calculation	Registered (1)	Maximum	Maximum		Registration		
			or Carry		Offering	Aggregate		Fee		
			Forward		Price Per	Offering				
			Rule		Share (2)	Price				
	Newly Registered Securities									
Fees to be	Equity	Common Stock,	Rule 457(c)	7,230,301	\$8.19	\$59,216,165.19	\$0.00015310	\$9,065.99		
Paid	~ -	\$0.01 par								
		value per								
		share								
Fees		Siluit								
Previously										
Paid										
Palu				F 10						
			Са	arry Forward Secur	ities		T			
Carry										
Forward										
Securities										
	Total Offering Amounts					\$0.00015310	\$9,065.99			
	Total Fees Previously Paid							-		
	Total Fees Offsets							-		
	Net Fee Due							\$9,065.99		

- (1) Represents the shares of common stock, par value \$0.01 per share ("Common Stock"), of Traws Pharma, Inc. (the "Registrant") that will be offered for resale by the selling stockholders pursuant to the prospectus contained in the Registration Statement on Form S-3 (the "Registration Statement") to which this exhibit is attached. The Registration Statement registers an aggregate of 7,230,301 shares of Common Stock, which consist of (i) 3,311,052 shares of Common Stock issuable upon exercise of pre-funded warrants and (ii) 3,919,249 shares of Common Stock issuable upon exercise of Series A Warrants. Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "Securities Act"), the Registration Statement shall also cover any additional shares of Common Stock that become issuable by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of outstanding shares of Common Stock.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) under the Securities Act. The offering price per share and aggregate offering price are based upon the average of the high and low prices for the Common Stock, as reported on the Nasdaq Capital Market on January 10, 2025, a date within five business days prior to the filing of the Registration Statement.