

PROSPECTUS SUPPLEMENT
(To Prospectus dated July 11, 2023)**Traws Pharma, Inc.****608,197 Shares of Common Stock**

We are offering 608,197 shares of our common stock to investors pursuant to this prospectus supplement and the accompanying prospectus and a securities purchase agreement with each investor.

In a concurrent private placement, or the Warrant Private Placement, we are also selling to the investors, including our chief executive officer and certain principal stockholders of the Company, Series A common stock warrants, or Series A Warrants, and pre-funded warrants to purchase shares of common stock, or Pre-Funded Warrants, and together with the Series A Warrants, the Unregistered Warrants, to purchase up to an aggregate of 7,230,301 shares, or the Unregistered Warrant Shares, of our common stock. The Unregistered Warrants and Unregistered Warrant Shares, which we refer to collectively as the Unregistered Securities, are not being registered under the Securities Act of 1933, as amended, or the Securities Act, and are not offered pursuant to this prospectus supplement and the accompanying prospectus. The Unregistered Securities are being offered pursuant to an exemption from the registration requirements of the Securities Act provided in Section 4(a)(2) of the Securities Act and/or Regulation D promulgated thereunder. The exercisability of the Unregistered Warrants will be subject to stockholder approval. If such stockholder approval is obtained, the Series A Warrants will be exercisable six months after issuance and will expire on the earlier of (a) subject to the fulfilment of certain equity conditions set forth in the securities purchase agreement, thirty (30) trading days after the last of certain data readouts to be reported by the Company, and (b) the 5-year anniversary of the closing date of the securities purchase agreement. 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. Subject to certain ownership limitations described in the Pre-Funded Warrants, the Pre-Funded Warrants will be exercisable after stockholder approval is obtained and do not expire. See “Warrant Private Placement” for more information.

Our common stock is listed on the Nasdaq Capital Market under the symbol “TRAW.” On December 27, 2024, the last reported sale price of common stock on the Nasdaq Capital Market was \$13.42 per share.

You should rely only on the information contained herein or incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information.

	Per Share of Common Stock	Total
Public offering price	\$5.103	\$3,103,629.29
Placement agent fees	\$0.421	\$ 256,049.42
Proceeds, before expenses, to us ⁽¹⁾	\$4.682	\$2,847,579.87

(1) The amount of offering proceeds represented in this table does not take into account any proceeds from the sale of the Pre-Funded Warrants or the exercise of any of the Unregistered Warrants being issued in the Warrant Private Placement.

We have engaged Tungsten Advisors (through its broker-dealer, Finalis Securities LLC) as our exclusive placement agent to use its reasonable best efforts to solicit offers to purchase shares in this offering. The placement agent has no obligation to buy any of the shares from us or to arrange for the purchase or sale of any specific number or dollar amount of the shares. The shares are expected to be delivered to purchasers on or about December 31, 2024.

Investing in our securities involves risks. See “Risk Factors” beginning on page S-5 of this prospectus and in the documents 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.

Sole Placement Agent

Tungsten Advisors

The date of this prospectus is December 30, 2024.

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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”), using a “shelf” registration process. 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 us and our securities. 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 “Where You Can Find More 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. We and the selling stockholders named in this prospectus have not authorized anyone to provide you with any different information.

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

The following summary highlights certain information contained elsewhere in this prospectus and the documents incorporated by reference herein. This summary does not contain all the information you will need in making your investment decision. You should carefully read this 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 S-5 in this prospectus and under similar headings in [our Annual Report on Form 10-K for the fiscal year ended December 31, 2023](#) and in [our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2024, June 30, 2024 and September 30, 2024](#), before making an investment decision. Traws Pharma, Inc. is sometimes referred to as “we” or the “Company.”

Our Business

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.

THE OFFERING

Shares of common stock offered by us in this offering	608,197 shares of common stock
Offering Price	\$5.103 per share of common stock
Common Stock to be outstanding after this offering and the Warrant Private Placement	3,633,751 shares of common stock (excluding shares of common stock issuable upon exercise of the Unregistered Warrants)
Warrant Private Placement	In the Warrant Private Placement, we are also selling to the investors, including our chief executive officer and certain principal stockholders of the Company, Unregistered Warrants to purchase up to 7,230,301 Unregistered Warrant Shares. The Unregistered Warrants and the Unregistered Warrant Shares are not being registered under the Securities Act and are not offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to an exemption from the registration requirements of the Securities Act provided in Section 4(a)(2) of the Securities Act and/or Regulation D promulgated thereunder. The exercisability of the Unregistered Warrants offered in the Private Placement will be subject to stockholder approval. See “Warrant Private Placement” for more information.
Use of proceeds	<p>The net proceeds to us from this offering will be approximately \$2.4 million based on the sale of an aggregate of 608,197 shares of common stock at the public offering price of \$5.103 per share, after deducting estimated placement agent fees and estimated offering expenses payable by us. We intend to use the net proceeds from this offering to fund the development of our clinical and preclinical programs, for other research and development activities and for general corporate purposes, which may include capital expenditures and funding working capital needs.</p> <p>The amount of offering proceeds above does not take into account any proceeds from the sale of the Pre-Funded Warrants or the exercise of any of the Unregistered Warrants being issued in the Warrant Private Placement.</p> <p>See “Use of Proceeds” on page S-8.</p>
Risk factors	You should read the “Risk Factors” section of this prospectus and in the documents incorporated by reference into this prospectus for a discussion of factors to consider before deciding to invest in our securities.
Listing	Common stock is listed on the Nasdaq Capital Market under the symbol “TRAW.”

Outstanding Shares

The number of shares of common stock outstanding after the offering is based on 3,025,554 shares outstanding as of November 11, 2024, and excludes as of such date:

- 430,066 shares of common stock issuable upon the exercise of stock options outstanding at September 30, 2024 with a weighted average exercise price of approximately \$37.01 per share;
- 12,650 shares of common stock issuable upon the exercise of outstanding or issuable warrants at September 30, 2024 with a weighted average exercise price of approximately \$92.99 per share;

- 22,421 shares of common stock issuable upon the vesting of restricted stock units outstanding at September 30, 2024;
- 51,381 shares of common stock reserved for future issuance under our 2021 Equity Compensation Plan, as amended, at September 30, 2024.

Unless otherwise indicated herein, all information in this prospectus supplement, including the number of shares that will be outstanding after this offering reflects and assumes no exercise of outstanding options or warrants, including the Unregistered Warrants, after November 11, 2024.

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 under “Risk Factors” contained in our proxy statement filed with the SEC on August 9, 2024, and [our Annual Report on Form 10-K for the year ended December 31, 2023](#), and in our updates to those Risk Factors in [our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2024, June 30, 2024 and September 30, 2024](#), 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 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.

Risks Associated with this Offering

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion with respect to the use of proceeds of this offering, including for any of the purposes described in the section of this prospectus supplement entitled “Use of Proceeds.” You will be relying on the judgment of our management regarding the application of the proceeds of this offering. The results and effectiveness of the use of proceeds are uncertain, and we could spend the proceeds in ways that you do not agree with or that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our product candidates, and cause the price of our common stock to decline.

We may be required to raise additional financing by issuing new securities with terms or rights superior to those of our existing securityholders, which could adversely affect the market price of shares of common stock and our business.

We will require additional financing to fund future operations, including expansion in current and new markets, development and acquisition, capital costs and the costs of any necessary implementation of technological innovations or alternative technologies. We may not be able to obtain financing on favorable terms, if at all. If we raise additional funds by issuing equity securities, the percentage ownership of our current stockholders will be reduced, and the holders of the new equity securities may have rights superior to those of our existing securityholders, which could adversely affect the market price of common stock and the voting power of shares of common stock. If we raise additional funds by issuing debt securities, the holders of these debt securities would similarly have some rights senior to those of our existing securityholders, and the terms of these debt securities could impose restrictions on operations and create a significant interest expense for us which could have a materially adverse effect on our business.

Our shareholders may experience significant dilution as a result of future equity offerings or issuances and exercise of outstanding options and warrants.

In order to raise additional capital or pursue strategic transactions, we may in the future offer, issue or sell additional shares of Common Stock or other securities convertible into or exchangeable for shares of Common Stock. We cannot assure you that we will be able to sell shares or other securities in any other transaction at a price per share or that have an exercise price or conversion price per share that is equal to or greater than the price for the securities purchased by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell or issue additional shares of Common Stock or other securities convertible into or exchangeable for Common Stock future transactions may be higher or lower than such price.

We have never declared or paid dividends on our capital stock and we do not anticipate paying dividends in the foreseeable future.

Our business requires significant funding, and we currently invest available funds and earnings in product development. Therefore, we do not anticipate paying any cash dividends on our common stock in the foreseeable future. We currently plan to invest all available funds and future earnings in the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of potential gain for the foreseeable future.

Future issuances of preferred stock may adversely affect the market price for Common Stock.

Additional issuances and sales of preferred stock, or the perception that such issuances and sales could occur, may cause prevailing market prices for Common Stock to decline and may adversely affect our ability to raise additional capital in the financial markets at times and prices favorable to us.

We are not in compliance with the Nasdaq continued listing requirements. If we are unable to comply with the continued listing requirements of the Nasdaq Capital Market, Common Stock could be delisted, which could affect Common Stock's market price and liquidity and reduce our ability to raise capital.

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 has determined to delist the Company's securities from The Nasdaq Capital Market.

The Company requested a hearing before the Nasdaq Hearings Panel (the "Panel") and presented its 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). The Company is working with its advisors to implement its plan of compliance. Even if we assume all of the shares of Common Stock offered in this prospectus are sold, no assurance can be given that the proceeds of this offering will enable us to achieve the minimum stockholders' equity requirement and there can be no guarantee that we will be able to maintain our Nasdaq listing.

If we cease to be eligible to trade on Nasdaq:

- We may have to pursue trading on a less recognized or accepted market, such as the OTC Bulletin Board or the "pink sheets."
- Shares of our Common Stock could be less liquid and marketable, thereby reducing the ability of stockholders to purchase or sell our shares as quickly and as inexpensively as they have done historically. If our stock is traded as a "penny stock," transactions in our stock would be more difficult and cumbersome.
- We may be unable to access capital on favorable terms or at all, as companies trading on alternative markets may be viewed as less attractive investments with higher associated risks, such that existing or prospective institutional investors may be less interested in, or prohibited from, investing in our common stock. This may also cause the market price of our common stock to decline.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and each prospectus supplement, including the documents that we incorporate 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, 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 use of proceeds; closing of the offering; estimations of projected cash runway; our future product development plans; the potential, safety, efficacy, and regulatory and clinical progress of the 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 Annual Report on Form 10-K for the year ended December 31, 2023](#) and in any of our subsequent Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and Annual Reports on Form 10-K for any year ended after December 31, 2023.

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 subsequent 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

Net proceeds to us from this offering will be approximately \$2.8 million, based on the sale of an aggregate of 608,197 shares of Common Stock at the public offering price of \$5.103 per share, after deducting estimated placement agent fees and estimated offering expenses payable by us. The amount of offering proceeds above does not take into account any proceeds from the sale of the Pre-Funded Warrants or the exercise of any of the Unregistered Warrants being issued in the Warrant Private Placement.

We intend to use the net proceeds from this offering to fund the development of our clinical and preclinical programs, for other research and development activities and for general corporate purposes, which may include capital expenditures and funding working capital needs.

The amounts actually expended for each purpose may vary significantly depending upon numerous factors, including the amount and timing of the proceeds from this offering and progress with the clinical development of our product candidates. Expenditures will also depend upon the establishment of collaborative arrangements with other companies, the availability of additional financing and other factors. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of shares of our securities.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds. Pending the use of the net proceeds from this offering as described above, we intend to invest the net proceeds in investment-grade, interest-bearing securities.

CAPITALIZATION

The following table presents our cash, cash equivalents and capitalization, as of September 30, 2024:

- on an actual basis; and
- on an as adjusted basis to give further effect to the sale of 608,197 shares of Common Stock, after deducting estimated placement agent fees and estimated offering expenses payable by us.

You should read this information in conjunction with our consolidated financial statements and notes thereto incorporated by reference into this prospectus.

	<u>Actual</u>	<u>as Adjusted</u>
Cash and cash equivalents	\$ 5,410,000	\$ 7,822,000
Long-term liabilities	2,621,000	\$ 2,621,000
Stockholders' equity*:		
Series C Preferred stock, \$0.01 par value, 5,000,000 shares authorized, 7,440 shares issued and outstanding at September 30, 2024 and September 30, 2024, as adjusted	—	—
Common stock, \$0.01 par value, 250,000,000 shares authorized at September 30, 2024 and September 30, 2024 as Adjusted, 3,025,554 shares issued and outstanding at September 30, 2024 and 3,633,751 shares issued and outstanding at September 30, 2024 as Adjusted	30,000	36,000
Additional paid-in capital	617,202,000	619,608,000
Accumulated other comprehensive loss	(33,000)	(33,000)
Accumulated deficit	(619,232,000)	(619,232,000)
Total stockholders' (deficit) equity	(2,033,000)	379,000

The above table is based on 3,025,554 shares of Common Stock outstanding as of November 11, 2024 and excludes:

- 430,066 shares of common stock issuable upon the exercise of stock options outstanding at September 30, 2024 with a weighted average exercise price of approximately \$37.01 per share;
- 12,650 shares of common stock issuable upon the exercise of outstanding or issuable warrants at September 30, 2024 with a weighted average exercise price of approximately \$92.99 per share;
- 22,421 shares of common stock issuable upon the vesting of restricted stock units outstanding at September 30, 2024; and
- 51,381 shares of common stock reserved for future issuance under our 2021 Equity Compensation Plan, as amended, at September 30, 2024.

In addition, the discussion and table above do not include any shares of our common stock issuable upon the sale of the Pre-Funded Warrants or the exercise of Unregistered Warrants being issued to the investors in the Warrant Private Placement.

DILUTION

If you invest in Common Stock in this offering, your interest will be diluted to the extent of the difference between the effective public offering price per share of Common Stock or and the as-adjusted net tangible book value per share of Common Stock after this offering. As of September 30, 2024, our historical net tangible book value (deficit) was \$(2,033,000), or \$(0.339) per share, based on 3,025,554 shares of Common Stock and 7,440 shares of Preferred Stock, included on an as converted basis to 2,976,000 of Common Stock, outstanding as of September 30, 2024. Our historical net tangible book value per share represents the amount of our total tangible assets reduced by the amount of our total liabilities, divided by the total number of shares of Common Stock outstanding as of September 30, 2024.

After giving effect to our sale in this offering of 608,197 shares of Common Stock, after deducting the placement agent fees and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2024 would be \$379,000, or \$0.057 per share. This represents an immediate increase of net tangible book value of \$0.396 per share to our existing stockholders and an immediate dilution of pro forma tangible book value of \$5.046 per share to investors purchasing shares of Common Stock in this offering. The following table illustrates this per share dilution.

Public offering price per share of Common Stock	\$5.103
Historical net tangible book value (deficit) per share at September 30, 2024	\$(0.339)
Increase in net tangible book value per share attributable to investors purchasing Common Stock in this offering	<u>0.396</u>
As adjusted net tangible book value per share as of September 30, 2024 after giving effect to this offering	<u>0.057</u>
Dilution per share to investors purchasing shares of Common Stock in this offering	<u><u>\$5.046</u></u>

The above discussion and table is based on 3,025,554 shares of Common Stock and 7,440 shares of Preferred Stock, included on an as converted basis to 2,976,000 of Common Stock, outstanding as of November 11, 2024 and excludes:

- 430,066 shares of common stock issuable upon the exercise of stock options outstanding at September 30, 2024 with a weighted average exercise price of approximately \$37.01 per share;
- 12,650 shares of common stock issuable upon the exercise of outstanding warrants at September 30, 2024 with a weighted average exercise price of approximately \$92.99 per share;
- 22,421 shares of common stock issuable upon the vesting of restricted stock units outstanding at September 30, 2024; and
- 51,381 shares of common stock reserved for future issuance under our 2021 Equity Compensation Plan, as amended, at September 30, 2024.

To the extent that outstanding options or warrants are exercised, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

In addition, the discussion and table above do not include any shares of our common stock issuable upon the exercise of Unregistered Warrants being issued to the investors in the Warrant Private Placement.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 250,000,000 shares of Common Stock, par value \$0.01 per share, and 5,000,000 shares of Series C preferred stock, par value \$0.01 per share. As of September 30, 2024, 3,025,554 shares of Common Stock, and 7,440 shares of our Series C preferred stock, were outstanding.

Common Stock

Subject to the preferences that may be applicable to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that may be declared by our board of directors out of funds legally available for that purpose. Holders of our common stock are entitled to one vote for each share on all matters voted on by stockholders, including the election of directors. Holders of our common stock do not have any conversion, redemption, sinking fund or preemptive rights. In the event of our dissolution, liquidation or winding up, holders of our common stock are entitled to share ratably in any assets remaining after the satisfaction in full of the prior rights of creditors and the aggregate liquidation preference of any preferred stock then outstanding. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future. All outstanding shares of our common stock are, and any shares of our common stock that we may issue in the future will be, fully paid and non-assessable.

Preferred Stock

We may issue any class of preferred stock in any series. Our board of directors has the authority, subject to limitations prescribed under Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations and restrictions. Our board of directors can also increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our company and may adversely affect the market price of our common stock and the voting and other rights of the holders of common stock.

On April 1, 2024, the Company acquired Trawsfynydd, in accordance with the terms of an Agreement and Plan of Merger, dated April 1, 2024 (the “Merger Agreement”), pursuant to which the Company acquired Trawsfynydd’s TRX100 and TRX01 programs and assumed certain liabilities associated with the acquired assets. The upfront consideration included (i) the issuance of 141,982 shares of common stock of the Company at an aggregate fair value of \$3,550,000, (ii) the issuance of 10,359 shares of Series C Convertible Preferred Stock (“Series C Preferred Stock”) at an aggregate fair value of \$93,232,000, and (iii) the assumption of all Trawsfynydd stock options (the “assumed options”) immediately outstanding prior to the transaction at an aggregated fair value of \$7,085,000. As of September 30, 2024, we have 7,440 shares of Series C Preferred Stock outstanding.

Other Currently Outstanding Warrants

On December 31, 2024, we issued pre-funded common stock warrants and Series A warrants to purchase an aggregate of up to 7,230,301 shares of our common stock. The exercise price of the Series A warrants is \$13.42 per share of common stock, subject to customary adjustments, and the Series A warrants will be exercisable and will expire pursuant to its terms. The exercise price of the pre-funded common stock warrants is \$0.01 per share of common stock, and will be exercisable and will expire pursuant to its terms.

The warrants and the shares of our common stock issuable upon exercise of the warrants were offered and sold without registration under the Securities Act of 1933, as amended (“the Securities Act”), or state securities laws, in reliance on the exemptions provided by Section 4(a)(2) of the Act and/or Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. Accordingly,

neither the warrants nor the shares of our common stock underlying the warrants may be offered or sold except pursuant to an effective registration statement under the Securities Act or pursuant to an available exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and in accordance with applicable state securities laws.

Delaware Anti-Takeover Law and Provisions in Our Certificate of Incorporation and Bylaws

Delaware Anti-Takeover Law

We are subject to Section 203 of the Delaware General Corporation Law. Section 203 generally prohibits a public Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding specified shares; or
- at or subsequent to the date of the transaction, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66²/₃% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a “business combination” to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, lease, exchange, mortgage, pledge, transfer or other disposition of 10% or more of the assets of the corporation to or with the interested stockholder;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an “interested stockholder” as any person that is:

- the owner of 15% or more of the outstanding voting stock of the corporation;
- an affiliate or associate of the corporation who was the owner of 15% or more of the outstanding voting stock of the corporation at any time within three years immediately prior to the relevant date; or
- the affiliates and associates of the above.

Under specific circumstances, Section 203 makes it more difficult for an “interested stockholder” to effect various business combinations with a corporation for a three-year period, although the stockholders may, by adopting an amendment to the corporation’s certificate of incorporation or bylaws, elect not to be governed by this section, effective 12 months after adoption.

Our Tenth Amended and Restated Certificate of Incorporation, as amended, or our “certificate of incorporation,” and our Amended and Restated Bylaws, or our “bylaws,” do not exclude us from the restrictions of Section 203. We anticipate that the provisions of Section 203 might encourage companies interested in acquiring us to negotiate in advance with our board of directors since the stockholder approval

requirement would be avoided if a majority of the directors then in office approve either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder.

Certificate of Incorporation and Bylaws

Provisions of our certificate of incorporation and bylaws may delay or discourage transactions involving an actual or potential change of control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our certificate of incorporation and bylaws will:

- permit our board of directors to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that all vacancies on our board of directors, including as a result of newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- not provide for cumulative voting rights, thereby allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election; and
- provide that special meetings of our stockholders may be called only by the board of directors or by such person or persons requested by a majority of the board of directors to call such meetings.

Transfer Agent

The transfer agent and registrar for our common stock is Equiniti Trust Company, LLC.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol "TRAW."

PLAN OF DISTRIBUTION

We have engaged Tungsten Advisors, or the placement agent, to act as our exclusive placement agent in connection with this offering, on a reasonable best efforts basis, of our Common Stock pursuant to this prospectus. The terms of this offering were subject to market conditions and negotiations between us, the placement agent and prospective investors. The engagement with the placement agent does not give rise to any commitment by the placement agent to purchase any of our Common Stock, and the placement agent will have no authority to bind us by virtue of the engagement. Further, the placement agent does not guarantee that it will be able to raise new capital in any prospective offering. The placement agent may engage sub-agents or selected dealers to assist with the offering.

We have entered into a securities purchase agreement directly with certain investors in connection with this offering.

We will deliver the shares of Common Stock being issued to the investors upon receipt of investor funds for the purchase of such Common Stock offered pursuant to this prospectus. We expect to deliver the shares of our common stock being offered pursuant to this prospectus on or about December 31, 2024.

Fees and Expenses

We have agreed to pay to the placement agent a cash fee equal to 8.25% of the aggregate gross proceeds raised in this offering. The following table shows the per Common Stock placement agent fees payable to the placement agent by us in connection with this offering.

	<u>Per Share of Common Stock</u>
Public offering price	\$5.103
Placement Agent's fees payable by us	\$0.421
Proceeds, before expenses, to us	\$4.682

We estimate the total expenses payable by us for this offering to be approximately \$691,000, which amount includes (i) a placement agent's fee of approximately \$256,000 (ii) reimbursement of the reasonable accountable expenses of the placement agent; and (iii) other estimated expenses of approximately \$335,000 which include legal, accounting, printing costs and various fees associated with the registration and listing of our shares.

Listing

Our Common Stock is currently traded on the Nasdaq Capital Market under the symbol "TRAW." On December 27, 2024, the last reported sale price of Common Stock was \$13.42 per share.

Lock-up Agreements

Our officers and directors and certain of our stockholders have agreed with the placement agent to be subject to a lock-up period of 90 days following the date of this prospectus. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into, or exercisable or exchangeable for, shares of Common Stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions. We have also agreed in the securities purchase agreement, subject to certain exceptions, to similar lock-up restrictions on the issuance and sale of our securities for 30 trading days following the later of (i) the Resale Effective Date (as defined in the purchase agreement) and (ii) obtaining the Requisite Stockholder Approval (as defined in the purchase agreement). The placement agent may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements.

Stabilization, Short Positions and Penalty Bids

The placement agent may engage in syndicate covering transactions, stabilizing transactions and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of Common Stock:

- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Such a naked short position would be closed out by buying securities in the open market. A naked short position is more likely to be created if the placement agent is concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.
- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum.
- Penalty bids permit the placement agent to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions, stabilizing transactions and penalty bids may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result, the price of Common Stock may be higher than the price that might otherwise exist in the open market. Neither we nor the placement agent make any representation or prediction as to the effect that the transactions described above may have on the price of Common Stock. These transactions may be effected on the Nasdaq Capital Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the placement agent also may engage in passive market making transactions in Common Stock in accordance with Regulation M during a period before the commencement of offers or sales of shares of Common Stock in this offering and extending through the completion of the distribution. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we nor the placement agent make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we nor the placement agent make any representation that the placement agent will engage in these transactions or that any transactions, once commenced, will not be discontinued without notice.

Indemnification

We have agreed to indemnify the placement agent against certain liabilities, including certain liabilities arising under the Securities Act, or to contribute to payments that the placement agent may be required to make for these liabilities.

Regulation M

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act and any fees received by it and any profit realized on the sale of the securities by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. The placement agent will be required to comply with the requirements of the Securities Act and the Exchange Act including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the placement agent. Under these rules and regulations, the placement agent may not (i) engage in any stabilization activity in connection with our securities; and (ii) bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until they have completed their participation in the distribution.

Other Relationships

The placement agent and its respective affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our

affiliates. The placement agent has received, or may in the future receive, customary fees and commissions for these transactions. The placement agent of this offering also acted as placement agent in our offering consummated on December 31, 2024, for which it received compensation.

WARRANT PRIVATE PLACEMENT

In a concurrent Warrant Private Placement, we are selling to investors, including our chief executive officer and certain principal stockholders of the Company, Unregistered Warrants to purchase up to an aggregate of 7,230,301 Unregistered Warrant Shares. The Unregistered Securities are not being registered under the Securities Act and are not offered pursuant to this prospectus supplement and the accompanying prospectus. The Unregistered Securities are being offered pursuant to an exemption from the registration requirements of the Securities Act provided in Section 4(a)(2) of the Securities Act.

The exercise price of each Series A Warrant and Pre-Funded Warrant will be \$13.42 and \$0.01 per share, respectively. The exercisability of the Unregistered Warrants offered in the Private Placement will be subject to stockholder approval. If such stockholder approval is obtained, the Series A Warrants will be exercisable six months after issuance and will expire on the earlier of (a) subject to the fulfilment of certain equity conditions set forth in the securities purchase agreement, thirty (30) trading days after the last of certain data readouts to be reported by the Company, and (b) the 5-year anniversary of the closing date of the securities purchase agreement. 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. Subject to certain ownership limitations described in the Pre-Funded Warrants, the Pre-Funded Warrants will be exercisable after stockholder approval is obtained and do not expire.

Our Common Stock is listed on The Nasdaq Capital Market, and, as such, we are subject to the applicable rules of the Nasdaq Stock Market, including Nasdaq Listing Rule 5635(c), which requires stockholder approval in connection with certain non-public offerings involving the sale, issuance or potential issuance by a listed company of equity compensation. For this purpose, “equity compensation” includes common stock (and/or securities convertible into or exercisable for common stock) issued to a company’s officers, directors, employees or consultants at a discount to the Market Value of such company’s common stock. “Market Value” means the consolidated closing bid price (as reflected on Nasdaq.net) immediately preceding the time that the listed company enters into a binding agreement with such officer, director, employee or consultant to issue the equity compensation. In addition to the foregoing, we are subject to Nasdaq Listing Rule 5635(d) which requires stockholder approval prior to the issuance of common stock or securities exercisable for common stock in an amount that equals 20% or more of the outstanding shares of common stock or voting power of an issuer, when such issuance is made at below the Minimum Price. “Minimum Price” means a price that is the lower of: (i) the official Nasdaq closing price of the Company’s common stock immediately preceding the signing of the securities purchase agreement, and (ii) the average Nasdaq closing price of the Company’s common stock for the five trading days immediately preceding signing of the securities purchase agreement.

The issuance of the Unregistered Warrant Shares underlying the Unregistered Warrants may result in shares of our Common Stock being issued to our chief executive officer (the “Inside Investor”) at a price which may be deemed to be below the Market Value of our Common Stock as of the time we entered into a securities purchase agreement with respect to the issuance of the Unregistered Securities. Thus, the issuance of the Unregistered Warrants may be considered “equity compensation” under Nasdaq Listing Rule 5635(c). As such, in order for the Unregistered Pre-Funded Warrant Shares to be fully issued as contemplated by the Private Placement Purchase Agreement, stockholder approval is required because, for purposes of Nasdaq Listing Rule 5635(c), the issuance of the Unregistered Warrants could result in shares of our common stock being issuable to the Inside Investor upon exercise of their Unregistered Warrants. In addition, the issuance of securities in the Private Placement will result in an issuance of more than 20% of the Company’s outstanding shares of common stock at an offering price that is less than the Minimum Price. As such, we would require stockholder approval to issue the common stock underlying the Unregistered Warrants that would result in such an issuance.

The closing of the Warrant Private Placement is expected to occur on December 31, 2024, subject to satisfaction of customary closing conditions.

EXPERTS

The consolidated financial statements of Traws Pharma, Inc. (formerly Onconova Therapeutics, Inc.), appearing in Traws Pharma, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2023 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.

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by Morgan, Lewis & Bockius LLP, Philadelphia, Pennsylvania.

WHERE YOU CAN FIND MORE 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 securities 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 Registration Statement and the exhibits are available at the SEC's Public Reference Room or through its Website.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read and copy any materials we file with the SEC at its Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549 and at its regional offices, a list of which is available on the Internet at <http://www.sec.gov/contact/addresses.htm>. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding issuers, such as us, that file electronically with the SEC. 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 nor have we 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. 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 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 Annual Report on [Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on April 1, 2024](#), as amended by [Form 10-K/A, filed with the SEC of April 29, 2024](#);
- our [Definitive Proxy Statement on Schedule 14A, filed with the SEC on August 9, 2024](#);
- our Quarterly Reports on [Form 10-Q for the quarters ended March 31, 2024, filed with the SEC on May 15, 2024](#), [June 30, 2024, filed with the SEC on August 15, 2024](#), and [September 30, 2024, filed with the SEC on November 14, 2024](#);
- our Current Reports on Form 8-K filed on [April 4, 2024](#), as amended on [June 17, 2024](#), [May 22, 2024](#), [June 21, 2024](#), [June 28, 2024](#), [July 19, 2024](#), [August 23, 2024](#), [September 17, 2024](#), [September 27, 2024](#), [November 1, 2024](#), [November 14, 2024](#), and [December 20, 2024](#);
- the description of our Common Stock contained in our registration statement on [Form 8-A filed on July 23, 2013 \(Registration no. 001-36020\)](#) with the SEC, including any amendment or report filed for the purpose of updating such description;
- All documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, after the date of the initial filing of the registration statement of which this prospectus is a part and prior to the effectiveness of such registration statement; and
- All documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and before we stop offering the securities under this prospectus.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You can request those documents from us, at no cost, by writing or telephoning us at: Traws Pharma, Inc., 12 Penns Trail, Newtown, Pennsylvania, 18940, (267) 759-3680, Attention: Investor Relations.

The most recent information that we file with the SEC automatically updates and supersedes older information. The information contained in any such filing will be deemed to be a part of this prospectus, commencing on the date on which the filing is made.

Information furnished under Items 2.02 or 7.01 (or corresponding information furnished under Item 9.01 or included as an exhibit) in any past or future Current Report on Form 8-K that we file with the SEC, unless otherwise specified in such report, is not incorporated by reference in this prospectus.

PROSPECTUS

**Onconova Therapeutics, Inc.****\$150,000,000****Common Stock, Preferred Stock,
Debt Securities, Warrants and Units**

This prospectus covers our offer and sale from time to time of any combination of common stock, preferred stock, debt securities, warrants or units described in this prospectus in one or more offerings. This prospectus provides a general description of the securities we may offer and sell. Each time we offer and sell securities we will provide specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement will also describe the specific manner in which we will offer the securities and may also add, update or change information contained in this prospectus. The aggregate offering price of all securities sold by us under this prospectus may not exceed \$150,000,000.

You should read this prospectus and any supplement carefully before you purchase any of our securities. **This prospectus may not be used to offer and sell securities unless accompanied by a prospectus supplement.**

The securities may be offered and sold by us from time to time at fixed prices, at market prices or at negotiated prices, and may be offered and sold to or through one or more underwriters, dealers or agents or directly to purchasers on a continuous or delayed basis. See “Plan of Distribution.”

Our common stock is currently listed on the Nasdaq Capital Market under the symbol “ONTX.” On June 29, 2023, the last reported sale price of our common stock on the Nasdaq Capital Market was \$1.10 per share.

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information.

Investing in these securities involves risks, including those set forth in the “Risk Factors” section of the applicable prospectus supplement and any related free writing prospectus and in the documents incorporated by reference into this prospectus.

Neither the SEC nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful and complete. Any representation to the contrary is a criminal offense.

This prospectus is dated July 11, 2023.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the SEC. This prospectus covers the primary offering by us of up to an aggregate offering price of \$150,000,000 of securities. We may offer and sell any combination of the securities described in this prospectus. This prospectus provides you with a general description of the securities we may offer and sell. Each time we offer and sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Where You Can Find More Information,” before investing in any of the securities offered.

We have filed or incorporated by reference exhibits to the registration statement of which this prospectus forms a part. You should read the exhibits carefully for provisions that may be important to you.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying supplement to this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or any accompanying prospectus supplement. This prospectus and any accompanying supplement to this prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and any accompanying supplement to this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an Internet website at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Our SEC filings are accessible through the Internet at that website. Our reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, are also available for download, free of charge, as soon as reasonably practicable after these reports are filed with the SEC, at our website at www.onconova.com. The content contained in, or that can be accessed through, our website is not a part of this prospectus.

Unless the context indicates otherwise, as used in this prospectus, the terms “Onconova,” “Onconova Therapeutics,” “Company,” “we,” “us” and “our” refer to Onconova Therapeutics, Inc. and its consolidated subsidiaries.

INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below:

- [Our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, that we filed with the SEC on March 30, 2023](#), and as [amended on Form 10-K/A, that we filed on May 1, 2023](#);
- [Our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, that we filed with the SEC on May 15, 2023](#);
- Our Current Reports on Form 8-K filed with the SEC on [February 13, 2023](#), [March 16, 2023](#), [April 6, 2023](#), [May 9, 2023](#) and [May 15, 2023](#);
- The description of our common stock contained in our registration statement on [Form 8-A filed on July 23, 2013](#) (Registration no. 001-36020) with the SEC, including any amendment or report filed for the purpose of updating such description;
- All documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act after the date of the initial filing of the registration statement of which this prospectus is a part and prior to the effectiveness of such registration statement; and
- All documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and before we stop offering the securities under this prospectus.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You can request those documents from us, at no cost, by writing or telephoning us at: Onconova Therapeutics, Inc., 12 Penns Trail, Newtown, Pennsylvania, 18940, (267) 759-3680, Attention: Suzanne Hutchison.

The most recent information that we file with the SEC automatically updates and supersedes older information. The information contained in any such filing will be deemed to be a part of this prospectus, commencing on the date on which the filing is made.

Information furnished under Items 2.02 or 7.01 (or corresponding information furnished under Item 9.01 or included as an exhibit) in any past or future Current Report on Form 8-K that we file with the SEC, unless otherwise specified in such report, is not incorporated by reference in this prospectus.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain, and any prospectus supplement may contain, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements, other than statements of historical facts, included or incorporated in this prospectus or any prospectus supplement regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. We may, in some cases, use terms such as “believes,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should,” “approximately” or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements appear in a number of places throughout this prospectus and the documents incorporated by reference herein, and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned preclinical development and clinical trials, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, protection of our intellectual property portfolio, the degree of clinical utility of our products, particularly in specific patient populations, our ability to develop commercial and manufacturing functions, expectations regarding clinical trial data, our results of operations, cash needs, financial condition, liquidity, collaborations, partnerships, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics and industry change, and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus and in the documents incorporated by reference herein, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this prospectus. In addition, even if our results of operations, financial condition and liquidity, and events in the industry in which we operate are consistent with the forward-looking statements contained in this report, they may not be predictive of results or developments in future periods.

Actual results could differ materially and adversely from our forward-looking statements due to a number of factors, including, without limitations, risks related to:

- our need for additional financing for our clinical-stage programs, continued product development and other operations, and our ability to obtain sufficient funds on acceptable terms when needed, and our plans and future needs to scale back operations if adequate financing is not obtained;
- our ability to continue as a going concern;
- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;
- the success and timing of our preclinical studies and clinical trials, including site initiation and patient enrollment, and regulatory approval of protocols for future clinical trials;
- our ability to enter into, maintain and perform collaboration agreements with other pharmaceutical companies, for funding and commercialization of our clinical product candidates or preclinical compounds, and our ability to achieve certain milestones under those agreements;
- the difficulties in obtaining and maintaining regulatory approval of our product candidates, and the labeling under any approval we may obtain;
- our plans and ability to develop, manufacture and commercialize our product candidates;
- our failure to recruit or retain key scientific or management personnel or to retain our executive officers;
- the size and growth of the potential markets for our product candidates and our ability to serve those markets;

- regulatory developments in the United States and foreign countries;
- the rate and degree of market acceptance of any of our product candidates;
- obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;
- the successful development of our commercialization capabilities, including sales and marketing capabilities;
- recently enacted and future legislation and regulation regarding the healthcare system;
- the success of competing therapies and products that are or become available;
- our ability to maintain the listing of our securities on a national securities exchange;
- the potential for third party disputes and litigation;
- the performance of third parties, including contract research organizations (“CROs”) and third-party manufacturers; and
- the impact of the novel coronavirus disease, COVID-19, to global economy and capital markets, and to our business and our financial results.

Any forward-looking statements that we make in this prospectus and the documents incorporated by reference herein speak only as of the date of such statement, and we undertake no obligation to update such statements whether as a result of any new information, future events, changed circumstances or otherwise. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

You should also read carefully the factors described in the “Risk Factors” section of this prospectus and in documents incorporated by reference herein, to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus and in documents incorporated by reference herein will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all.

We obtained the industry, market and competitive position data in this prospectus and in documents incorporated by reference herein from our own internal estimates and research as well as from industry and general publications and research surveys and studies conducted by third parties. Industry publications and surveys generally state that the information contained therein has been obtained from sources believed to be reliable. We believe this data is accurate in all material respects as of the date of this prospectus.

RISK FACTORS

Our business is influenced by many factors that are difficult to predict, and that involve uncertainties that may materially affect actual operating results, cash flows and financial condition. Before making an investment decision, you should carefully consider these risks set forth in the “Risk Factors” section of our Annual Report on Form 10-K, as filed with the SEC on March 30, 2023, which are incorporated by reference into this prospectus, as well as any amendment or update to our risk factors reflected in subsequent filings with the SEC and any applicable prospectus supplement or any free writing prospectus. You should also carefully consider any other information we include or incorporate by reference in this prospectus. Any such risk could cause our business, financial condition or operating results to suffer. The market price of our common stock could decline if one or more of these risks and uncertainties develop into actual events. You could lose all or part of your investment.

ONCONOVA THERAPEUTICS, INC.

Overview

We are a clinical-stage biopharmaceutical company focused on discovering and developing novel products for patients with cancer. We have proprietary molecularly targeted agents designed to disrupt specific cellular pathways that are important for cancer cell proliferation. We believe that the product candidates in our pipeline have the potential to be efficacious in a variety of cancers with unmet medical need. We have the following two clinical-stage programs: 1. narazaciclib (ON 123300), a multi-targeted kinase inhibitor in solid tumors and hematological malignancies as a single agent or in combination with other anti-cancer therapies; and 2. rigosertib administered alone or in combination for the treatment of various cancers. We are currently evaluating potential compounds for in-licensing opportunities.

Our net losses were \$5.8 million and \$4.1 million for the three months ended March 31, 2023 and 2022, respectively. As of March 31, 2023, we had an accumulated deficit of \$469.5 million.

CORPORATE INFORMATION

We were incorporated in Delaware in December 1998 and commenced operations in January 1999. 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.onconova.com. The information on, or that can be accessed through, our website is not part of this prospectus.

USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement, we anticipate that the net proceeds from our sale of any securities will be used to fund the development of our clinical and preclinical programs, for other research and development activities and for general corporate purposes, which may include capital expenditures and funding our working capital needs. We expect from time to time to evaluate the acquisition of businesses, products and technologies for which a portion of the net proceeds may be used, although we currently are not planning or negotiating any such transactions. Pending such uses, we may invest the net proceeds in investment grade interest-bearing securities.

The amounts actually expended for each purpose may vary significantly depending upon numerous factors, including the amount and timing of the proceeds from this offering and progress with our clinical development programs. Expenditures will also depend upon the establishment of collaborative arrangements with other companies, the availability of additional financing and other factors. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of securities.

DESCRIPTION OF SECURITIES

We may offer shares of our common stock and preferred stock, various series of debt securities, warrants or units to purchase any of such securities, with a total value of up to \$150,000,000, from time to time in one or more offerings under this prospectus at prices and on terms to be determined by market conditions at the time of the offering. This prospectus provides you with a general description of the securities that we may offer. In connection with each offering, we will provide a prospectus supplement that will describe the specific amounts, prices and terms of the securities being offered, including, to the extent applicable:

- designation or classification;
- aggregate offering price;
- rates and times of payment of dividends;
- redemption, conversion or exchange terms;
- conversion or exchange prices or rates and any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange;
- restrictive covenants;
- voting or other rights; and
- important federal income tax considerations.

The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement will offer a security that is not included in the Registration Statement at the time of its effectiveness or offer a security of a type that is not described in this prospectus.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 125,000,000 shares of common stock, par value \$0.01 per share, and 5,000,000 shares of preferred stock, par value \$0.01 per share. As of June 29, 2023, 20,977,625 shares of our common stock, and no shares of our preferred stock, were outstanding.

Common Stock

Subject to the preferences that may be applicable to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that may be declared by our board of directors out of funds legally available for that purpose. Holders of our common stock are entitled to one vote for each share on all matters voted on by stockholders, including the election of directors. Holders of our common stock do not have any conversion, redemption, sinking fund or preemptive rights. In the event of our dissolution, liquidation or winding up, holders of our common stock are entitled to share ratably in any assets remaining after the satisfaction in full of the prior rights of creditors and the aggregate liquidation preference of any preferred stock then outstanding. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future. All outstanding shares of our common stock are, and any shares of common stock that we may issue in the future will be, fully paid and non-assessable.

Preferred Stock

We may issue any class of preferred stock in any series. Our board of directors has the authority, subject to limitations prescribed under Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation,

powers, preferences and rights of the shares of each series and any of its qualifications, limitations and restrictions. Our board of directors can also increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our company and may adversely affect the market price of our common stock and the voting and other rights of the holders of common stock.

In 2018, our board of directors designated 1,044,488 shares of preferred stock as Series A Convertible Preferred Stock and 1,796,875 shares of preferred stock as Series B Convertible Preferred Stock. As of June 30, 2023, we had no shares of preferred stock outstanding.

Delaware Anti-Takeover Law and Provisions in Our Certificate of Incorporation and Bylaws

Delaware Anti-Takeover Law

We are subject to Section 203 of the Delaware General Corporation Law. Section 203 generally prohibits a public Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding specified shares; or
- at or subsequent to the date of the transaction, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 $\frac{2}{3}$ % of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a “business combination” to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, lease, exchange, mortgage, pledge, transfer or other disposition of 10% or more of the assets of the corporation to or with the interested stockholder;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an “interested stockholder” as any person that is:

- the owner of 15% or more of the outstanding voting stock of the corporation;
- an affiliate or associate of the corporation who was the owner of 15% or more of the outstanding voting stock of the corporation at any time within three years immediately prior to the relevant date; or
- the affiliates and associates of the above.

Under specific circumstances, Section 203 makes it more difficult for an “interested stockholder” to effect various business combinations with a corporation for a three-year period, although the stockholders

may, by adopting an amendment to the corporation's certificate of incorporation or bylaws, elect not to be governed by this section, effective 12 months after adoption.

Our Tenth Amended and Restated Certificate of Incorporation, as amended, or our "certificate of incorporation," and our Amended and Restated Bylaws, or our "bylaws," do not exclude us from the restrictions of Section 203. We anticipate that the provisions of Section 203 might encourage companies interested in acquiring us to negotiate in advance with our board of directors since the stockholder approval requirement would be avoided if a majority of the directors then in office approve either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder.

Certificate of Incorporation and Bylaws

Provisions of our certificate of incorporation and bylaws may delay or discourage transactions involving an actual or potential change of control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our certificate of incorporation and bylaws will:

- permit our board of directors to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate (as of April 24, 2020, 1,044,488 shares have been designated as Series A Convertible Preferred Stock and 1,796,875 shares have been designated as Series B Convertible Preferred Stock);
- provide that all vacancies on our board of directors, including as a result of newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- not provide for cumulative voting rights, thereby allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election; and
- provide that special meetings of our stockholders may be called only by the board of directors or by such person or persons requested by a majority of the board of directors to call such meetings.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is EQ Shareowner Services.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol "ONTX."

DESCRIPTION OF DEBT SECURITIES

This prospectus describes certain general terms and provisions of our debt securities. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. The following description of debt securities will apply to the debt securities offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of debt securities may specify different or additional terms.

We may offer under this prospectus up to \$150,000,000 aggregate principal amount of secured or unsecured debt securities, or if debt securities are issued at a discount, or in a foreign currency or composite currency, such principal amount as may be sold for an initial public offering price of up to \$150,000,000. The debt securities may be either senior debt securities, senior subordinated debt securities or subordinated

debt securities. The debt securities offered hereby will be issued under an indenture between us and a trustee. A form of indenture, which will be qualified under, subject to, and governed by, the Trust Indenture Act of 1939, as amended, is filed as an exhibit to the registration statement.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and detailed or determined in the manner provided in a board of directors' resolution, an officers' certificate or by an indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to the series, including any pricing supplement.

We can issue debt securities that may be in one or more series with the same or various maturities, at par, at a premium or at a discount. We will set forth in a prospectus supplement, including any pricing supplement, relating to any series of debt securities being offered, the initial offering price, the aggregate principal amount and the following terms of the debt securities:

- the title of the debt securities;
- the price or prices (expressed as a percentage of the aggregate principal amount) at which we will sell the debt securities;
- any limit on the aggregate principal amount of the debt securities;
- the date or dates on which we will pay the principal on the debt securities;
- the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where the principal of, and premium and interest on, the debt securities will be payable;
- the terms and conditions upon which we may redeem the debt securities;
- any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities;
- the dates on which and the price or prices at which we will repurchase the debt securities at the option of the holders of debt securities and other detailed terms and provisions of these repurchase obligations;
- the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;
- whether the debt securities will be issued in the form of certificated debt securities or global debt securities;
- the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;
- the currency of denomination of the debt securities;
- the designation of the currency, currencies or currency units in which payment of principal of, and premium and interest on, the debt securities will be made;
- if payments of principal of, and premium or interest on, the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;
- the manner in which the amounts of payment of principal of, and premium or interest on, the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies other than that in which the debt securities are denominated or designated to be payable or by reference to a commodity, commodity index, stock exchange index or financial index;

- any provisions relating to any security provided for the debt securities;
- any addition to or change in the events of default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;
- any addition to or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;
- any other terms of the debt securities, which may modify or delete any provision of the indenture as it applies to that series; and
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities.

We may issue debt securities that are exchangeable and/or convertible into shares of our common stock or any class or series of preferred stock. The terms, if any, on which the debt securities may be exchanged and/or converted will be set forth in the applicable prospectus supplement. Such terms may include provisions for conversion, either mandatory, at the option of the holder or at our option, in which case the number of shares of common stock, preferred stock or other securities to be received by the holders of debt securities would be calculated as of a time and in the manner stated in the prospectus supplement.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Payment of Interest and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, as Depositary, or a nominee of the Depositary (we will refer to any debt security represented by a global debt security as a book-entry debt security), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a certificated debt security), as described in the applicable prospectus supplement.

Certificated Debt Securities

You may transfer or exchange certificated debt securities at the trustee's office or paying agencies in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may transfer certificated debt securities and the right to receive the principal of, and premium and interest on, certificated debt securities only by surrendering the old certificate representing those certificated debt securities and either we or the trustee will reissue the old certificate to the new holder or we or the trustee will issue a new certificate to the new holder.

Book-Entry Debt Securities

We may issue the debt securities of a series in the form of one or more book-entry debt securities that would be deposited with a depositary or its nominee identified in the prospectus supplement. We may issue book-entry debt securities in either temporary or permanent form. We will describe in the prospectus

supplement the terms of any depositary arrangement and the rights and limitations of owners of beneficial interests in any book-entry debt security.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase debt securities, common stock, preferred stock or other securities or any combination of the foregoing. We may issue warrants independently or together with other securities. Warrants sold with other securities may be attached to or separate from the other securities. We will issue warrants under one or more warrant agreements between us and a warrant agent that we will name in the prospectus supplement.

The prospectus supplement relating to any warrants that we may offer will include specific terms relating to the offering. We will file the form of any warrant agreement with the SEC, and you should read the warrant agreement for provisions that may be important to you. The prospectus supplement will include some or all of the following terms:

- the title of the warrants;
- the aggregate number of warrants offered;
- the designation, number and terms of the debt securities, common stock, preferred stock or other securities purchasable upon exercise of the warrants, and procedures by which those numbers may be adjusted;
- the exercise price of the warrants;
- the dates or periods during which the warrants are exercisable;
- the designation and terms of any securities with which the warrants are issued;
- if the warrants are issued as a unit with another security, the date, if any, on and after which the warrants and the other security will be separately transferable;
- if the exercise price is not payable in U.S. dollars, the foreign currency, currency unit or composite currency in which the exercise price is denominated;
- any minimum or maximum amount of warrants that may be exercised at any one time;
- any terms, procedures and limitations relating to the transferability, exchange, exercise, amendment or termination of the warrants; and
- any adjustments to the terms of the warrants resulting from the occurrence of certain events or from the entry into or consummation by us of certain transactions.

As of June 29, 2023, we had (i) non-tradable warrants with an expiration date ranging from September 2023 to December 2024 to purchase 344,990 shares of common stock at a weighted average exercise price of \$4.58 per share, and (iii) non-tradable pre-funded warrants expiring either in July 2023 or with no expiration date to purchase 8,522 shares of common stock at an exercise price of \$2.25 per share.

DESCRIPTION OF UNITS

As specified in any applicable prospectus supplement, we may issue units consisting of one or more warrants, debt securities, shares of preferred stock, shares of common stock or any combination of such securities.

PLAN OF DISTRIBUTION

We may sell the securities in one or more of the following ways (or in any combination) from time to time:

- to or through one or more underwriters or dealers in a public offering and sale by them;
- directly to a limited number of purchasers or to a single purchaser;
- through agents;
- through block trades in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction; or
- in any manner, as provided in the applicable prospectus supplement.

Each time we offer and sell securities under this prospectus, we will file a prospectus supplement. The prospectus supplement will state the terms of the offering of the securities, including:

- the name or names of any underwriters, dealers or agents;
- the purchase price of such securities and the proceeds to be received by us, if any;
- any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchanges on which the securities may be listed.

Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

If we use underwriters in the sale, the securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including:

- negotiated transactions;
- at a fixed public offering price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to prevailing market prices; or
- at negotiated prices.

Unless otherwise stated in a prospectus supplement, the obligations of the underwriters to purchase any securities will be conditioned on customary closing conditions and the underwriters will be obligated to purchase all of such series of securities, if any are purchased.

We may sell the securities through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and any commissions we pay to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Underwriters and agents may be entitled under agreements entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the underwriters or agents may be required to make. Underwriters and agents may be customers of, engage in transactions with, or perform services for us and our affiliates in the ordinary course of business.

Each series of securities will be a new issue of securities and will have no established trading market other than the common stock which is listed on the Nasdaq Capital Market. Any underwriters to whom securities are sold for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than the common stock, may or may not be listed on a national securities exchange.

EXPERTS

The consolidated financial statements of Onconova Therapeutics, Inc. appearing in Onconova Therapeutics, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2022 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.

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by Morgan, Lewis & Bockius LLP, Philadelphia, Pennsylvania.

608,197 Shares



Common Stock

PROSPECTUS SUPPLEMENT

Sole Placement Agent

Tungsten Advisors

December 30, 2024
