

---

---

**SECURITIES AND EXCHANGE COMMISSION**  
WASHINGTON, D.C. 20549

---

**FORM S-8**

REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

---

**ONCONOVA THERAPEUTICS, INC.**

(Exact name of registrant as specified in its charter)

---

**DELAWARE**

(State or other jurisdiction of  
incorporation or organization)

**22-3627252**

(I.R.S. Employer  
Identification No.)

---

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

(Address, including zip code, of registrant's principal executive offices)

---

**ONCONOVA THERAPEUTICS, INC. 2021 INCENTIVE COMPENSATION PLAN, AS AMENDED AND RESTATED**  
(Full title of the plan)

---

**Steven M. Fruchtman, M.D.**  
President and Chief Executive Officer  
Onconova Therapeutics, Inc.  
12 Penns Trail  
Newtown, PA 18940  
(267) 759-3680

---

**With copies to:**  
**Joanne R. Soslow**  
Morgan, Lewis & Bockius LLP  
1701 Market Street  
Philadelphia, PA 19103-2921  
Tel: (215) 963-5000  
Fax: (215) 963-5001

---

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

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

---

---

### Explanatory Note

This Registration Statement is filed pursuant to General Instruction E to Form S-8 under the Securities Act Securities Act, with respect to 2,000,000 additional shares of Common Stock that may be issued under the Onconova Therapeutics, Inc. 2021 Incentive Compensation Plan, as amended and restated (the "Plan"). The contents of the Company's Registration Statement on [Form S-8 \(Registration No. 333-258336\), dated July 30, 2021](#) relating to the Company's 2021 Incentive Compensation Plan are incorporated herein by reference except as otherwise updated or modified by this filing.

---

## PART I

### INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

#### ITEM 1. PLAN INFORMATION.

The documents containing the information specified in this Part I of Form S-8 will be sent or given to employees of Onconova Therapeutics, Inc. (the “Company”) as specified by Rule 428(b)(1) of the Securities Act. Such documents need not be filed with the Securities and Exchange Commission (the “Commission”) either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424. These documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

#### ITEM 2. REGISTRANT INFORMATION AND EMPLOYEE PLAN ANNUAL INFORMATION.

The Company will furnish, without charge, to each person to whom the prospectus is delivered, upon the written or oral request of such person, a copy of any and all of the documents incorporated by reference in Item 3 of Part II of this Registration Statement. The Company will also furnish without charge to each person to whom the prospectus is delivered, upon the written or oral request of such person, a copy of other documents required to be delivered to employees of the Company under Rule 428(b). Requests should be directed to: Onconova Therapeutics, Inc., 375 Pheasant Run, Newtown, PA 18940, Attention: Secretary, telephone number (267) 759-3680.

## PART II

### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

The following documents filed by the Company with the Commission are incorporated by reference into this Registration Statement:

- (1) the Company’s [Annual Report on Form 10-K for the fiscal year ended December 31, 2021](#) (as amended by the Annual Report on [Form 10-K/A filed on April 29, 2022](#));
- (2) the Company’s Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2022](#), [June 30, 2022](#) and [September 30, 2022](#);
- (3) The Company’s Current Reports on Form 8-K filed with the Commission on [February 9, 2022](#), [June 13, 2022](#), [July 21, 2022](#), and [August 18, 2022](#); and
- (4) the description of the Company’s shares of common stock, par value \$0.01 per share (“Common Stock”), contained in the Company’s Registration Statement on [Form 8-A filed with the Commission on July 23, 2013 \(File No. 001-36020\)](#) to register such securities under the Securities Exchange Act of 1934, as amended, or the “Exchange Act,” including any amendments filed for the purpose of updating such information.

To the extent that any information contained in any current report on Form 8-K or 8-K/A, or any exhibit thereto, was furnished to, rather than filed with, the SEC, such information or exhibit is specifically not incorporated by reference in this Registration Statement.

All reports and other documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference to this Registration Statement and to be a part hereof from the date of the filing of such reports and documents. Any statement contained herein or in a document all or a portion of which is incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

---

## 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, 2021](#) have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, 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.

### **ITEM 4. DESCRIPTION OF SECURITIES.**

Not Applicable.

### **ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.**

Not Applicable.

### **ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.**

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

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

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

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

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

---

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

We have an insurance policy covering our officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act.

**ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.**

Not Applicable.

**ITEM 8. EXHIBITS.**

<b>EXHIBIT NUMBER</b>	<b>DESCRIPTION</b>
<u>4.1</u>	<u>Tenth Amended and Restated Certificate of Incorporation of Onconova Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the Commission on July 30, 2013 (File No. 001-36020)).</u>
<u>4.2</u>	<u>Certificate of Amendment to Tenth Amended and Restated Certificate of Incorporation of Onconova Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the Commission on May 31, 2016 (File No. 001-36020)).</u>
<u>4.3</u>	<u>Certificate of Amendment to Tenth Amended and Restated Certificate of Incorporation of Onconova Therapeutics, Inc. as amended (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the Commission on March 22, 2018 (File No. 001-36020)).</u>
<u>4.4</u>	<u>Certificate of Amendment to Tenth Amended and Restated Certificate of Incorporation of Onconova Therapeutics, Inc., as amended (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the Commission on June 8, 2018 (File No. 001-36020)).</u>
<u>4.5</u>	<u>Certificate of Amendment to Tenth Amended and Restated Certificate of Incorporation of Onconova Therapeutics, Inc., as amended (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on September 25, 2018 (File No. 001-36020)).</u>
<u>4.6</u>	<u>Certificate of Amendment to Tenth Amended and Restated Certificate of Incorporation of Onconova Therapeutics, Inc., as amended (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on May 20, 2021 (File No. 001-36020)).</u>
<u>4.7</u>	<u>Certificate of Amendment to Tenth Amended and Restated Certificate of Incorporation of Onconova Therapeutics, Inc., as amended (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed on May 20, 2021 (File No. 001-36020)).</u>
<u>4.8</u>	<u>Certificate of Designation of Series A Convertible Preferred Stock (Incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on February 8, 2018 (File No. 001-36020)).</u>
<u>4.9</u>	<u>Certificate of Designation of Series B Convertible Preferred Stock (Incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on April 30, 2018 (File No. 001-36020)).</u>
<u>4.10</u>	<u>Amended and Restated Bylaws of Onconova Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the Commission on July 30, 2013 (File No. 001-36020)).</u>
<u>4.11</u>	<u>Form of Certificate of Common Stock (incorporated by reference to Exhibit 4.1 to Pre-Effective Amendment No. 1 to the Company's Registration Statement on Form S-1, filed with the Commission on July 11, 2013 (File No. 333-189358)).</u>
<u>4.12</u>	<u>Onconova Therapeutics, Inc. 2021 Incentive Compensation Plan, as Amended and Restated, as approved by stockholders (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on November 14, 2022 (File No. 001-36020)).</u>

---

<a href="#">5.1*</a>	<a href="#">Opinion of Morgan, Lewis &amp; Bockius LLP regarding the validity of the securities being registered.</a>
<a href="#">23.1*</a>	<a href="#">Consent of Ernst &amp; Young LLP.</a>
<a href="#">23.2*</a>	<a href="#">Consent of Morgan, Lewis &amp; Bockius LLP (included in Exhibit 5.1).</a>
<a href="#">24.1*</a>	<a href="#">Power of Attorney (included in signature page).</a>
<a href="#">107*</a>	<a href="#">Filing Fee Table.</a>

---

\* Filed herewith.

#### ITEM 9. UNDERTAKINGS.

(a) The undersigned Company hereby undertakes:

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

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

(ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information in this Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*provided, however*, that paragraphs (1)(i) and (1)(ii) do not apply if the information required to be included in a post-effective amendment is contained in reports filed with or furnished to the Commission by the Company pursuant to section 13 or section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for determining liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of the securities at that time to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

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

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

---

## SIGNATURES

Pursuant to the requirements of the Securities Act, the Company certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Newtown, Commonwealth of Pennsylvania, on the 15th day of November, 2022.

### ONCONOVA THERAPEUTICS, INC.

By: /s/ Steven M. Fruchtman, M.D.  
Steven M. Fruchtman, M.D.  
Chief Executive Officer

## POWER OF ATTORNEY

We, the undersigned officers and directors of Onconova Therapeutics, Inc., hereby severally constitute and appoint Steven M. Fruchtman, M.D. and Mark Guerin, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-8 filed herewith and any and all subsequent amendments to said registration statement, and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Onconova Therapeutics, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Steven M. Fruchtman, M.D.</u> Steven M. Fruchtman, M.D.	Director, President and Chief Executive Officer <i>(Principal Executive Officer)</i>	November 15, 2022
<u>/s/ Mark Guerin</u> Mark Guerin	Chief Operating Officer and Chief Financial Officer <i>(Principal Financial Officer)</i>	November 15, 2022
<u>/s/ James J. Marino</u> James J. Marino	Chairman, Board of Directors	November 15, 2022
<u>/s/ Jerome E. Groopman, M.D.</u> Jerome E. Groopman, M.D.	Director	November 15, 2022
<u>/s/ Viren Mehta, Ph.D.</u> Viren Mehta, Ph.D.	Director	November 15, 2022
<u>/s/ Mary Teresa Shoemaker</u> Mary Teresa Shoemaker	Director	November 15, 2022
<u>/s/ Jack E. Stover</u> Jack E. Stover	Director	November 15, 2022

# Morgan Lewis

November 15, 2022

Onconova Therapeutics, Inc.  
12 Penns Trail  
Newtown, PA 18940

Re: Onconova Therapeutics, Inc., Registration Statement on Form S-8 - Onconova Therapeutics, Inc. 2021 Incentive Compensation Plan, as Amended and Restated

Ladies and Gentlemen:

We have acted as counsel to Onconova Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the preparation of a Registration Statement on Form S-8 (the "Registration Statement") filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), relating to the registration of 2,000,000 shares of Common Stock, par value \$0.01 per share (the "Shares"), of the Company issuable in connection with the Onconova Therapeutics, Inc. 2021 Incentive Compensation Plan, as Amended and Restated (the "Plan").

In connection with this opinion letter, we have examined the Registration Statement and originals, or copies certified or otherwise identified to our satisfaction, of the Tenth Amended and Restated Certificate of Incorporation of the Company, as amended through the date hereof, the Amended and Restated By-laws of the Company, as amended through the date hereof, the Plan and such other documents, records and other instruments as we have deemed appropriate for the purposes of the opinion set forth herein.

We have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of the documents submitted to us as originals, the conformity with the originals of all documents submitted to us as certified, facsimile or photostatic copies and the authenticity of the originals of all documents submitted to us as copies.

Based upon the foregoing, we are of the opinion that the Shares have been duly authorized by the Company and, when issued and delivered by the Company in the manner and on the terms described in the Plan, will be validly issued, fully paid and non-assessable.

The opinions expressed herein are limited to the General Corporation Law of the State of Delaware.

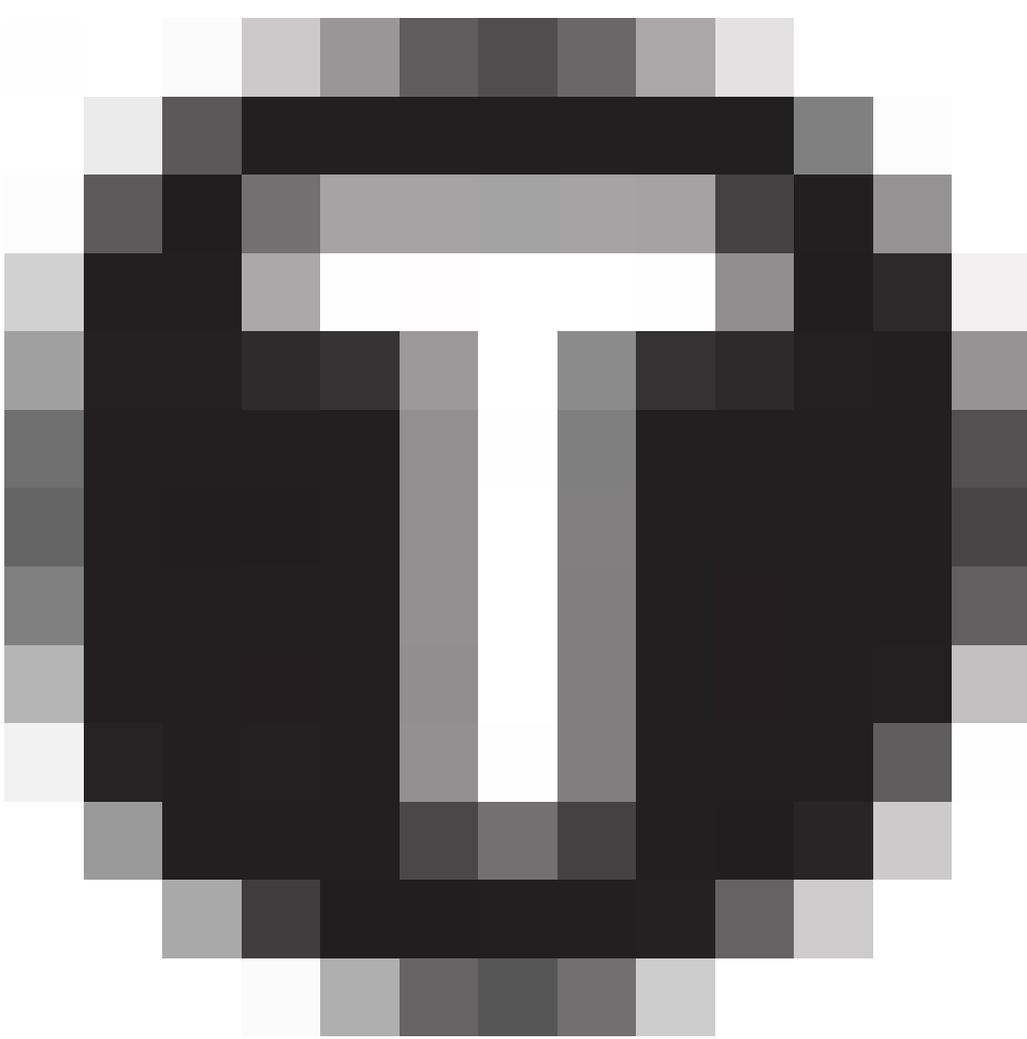
We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement. In giving such opinion, we do not thereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Act or the rules or regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

/s/ Morgan, Lewis & Bockius LLP

**Morgan, Lewis & Bockius LLP**

1701 Market  
Street  
Philadelphia,  
PA 19103-  
2921



United  
States

+1.215.963.5000



+1.215.963.5001



**Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the Onconova Therapeutics, Inc. 2021 Incentive Compensation Plan, as amended and restated, of our report dated March 21, 2022, with respect to the consolidated financial statements of Onconova Therapeutics, Inc., included in its Annual Report (Form 10-K) for the year ended December 31, 2021, filed with the Securities and Exchange Commission.

/s/ Ernst & Young

Philadelphia, Pennsylvania  
November 15, 2022

---

## Calculation of Filing Fee Table

Form S-8  
(Form Type)Onconova Therapeutics, Inc.  
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Newly Registered Securities												
Security Type	Security Class Title(1)	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Proposed Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward	
Fees to be Paid	Equity	Common Stock, \$0.01 par value per share	1,667,660(1)	\$ 0.68(2)	\$ 1,134,008.80(2)	\$110.20 per \$1,000,000.00	\$ 124.97	-	-	-	-	
Fees to be Paid	Equity	Common Stock, \$0.01 par value per share	332,340(1)	\$ 1.26(3)	\$ 418,748.40(3)	\$110.20 per \$1,000,000.00	\$ 46.15	-	-	-	-	
Fees Previously Paid	-	-	-	-	-	-	-	-	-	-	-	
Carry Forward Securities												
Carry Forward Securities	-	-	-	-	-	-	-	-	-	-	-	
Total Offering Amounts					\$ 1,552,757.20		\$ 171.12					
Total Fees Previously Paid							-					
Total Fee Offsets							-					
Net Fee Due							\$ 171.12					

- (1) This registration statement covers shares of our common stock, par value \$0.01 per share (the "Common Stock") of Onconova Therapeutics, Inc. (the "Company") that may be offered or sold pursuant to the Company's 2021 Incentive Compensation Plan, as Amended and Restated (the "Plan"). In addition, in accordance with Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall be deemed to cover any additional securities that may from time to time be offered or issued to prevent dilution resulting from stock splits, stock dividends, recapitalization or similar transactions in accordance with the anti-dilution provisions of the Plan.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act. The price per share and aggregate offering price are calculated on the basis of \$0.68, the average of the high and low price of the Common Stock as reported on the NASDAQ Capital Market on November 10, 2022.
- (3) Computed in accordance with Rule 457(h) of the Securities Act. On August 18, 2022, after the stockholders of the Company approved the Plan, the Board of Directors of the Company approved a grant of non-qualified stock options to purchase 66,468 shares of Common Stock at an exercise price of \$1.26 per share to each of the Company's non-employee directors.