

Registration No. 333-198240
Registration No. 333-202886
Registration No. 333-210059
Registration No. 333-216622
Registration No. 333-223513
Registration No. 333-230126
Registration No. 333-237115
Registration No. 333-254143

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

FORM S-8

**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT
No. 333-198240**

**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT
No. 333-202886**

**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT
No. 333-210059**

**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT
No. 333-216622**

**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT
No. 333-223513**

**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT
No. 333-230126**

**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT
No. 333-237115**

**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT
No. 333-254143**

UNDER THE SECURITIES ACT OF 1933

OCULAR THERAPEUTIX, INC.

(Exact Name of Registrant as Specified in Its Charter)

| | |
|--|--|
| Delaware (State or Other Jurisdiction of Incorporation or Organization) | 20-5560161 (I.R.S. Employer Identification No.) |
| 24 Crosby Drive Bedford, MA (Address of Principal Executive Offices) | 01730 (Zip Code) |

2006 Stock Incentive Plan, as amended
2014 Employee Stock Purchase Plan

2014 Stock Incentive Plan
2019 Inducement Stock Incentive Plan
2021 Stock Incentive Plan
Inducement Stock Option Grant
Inducement Stock Option Grant
(Full Title of the Plan)

Antony Mattessich
President and Chief Executive Officer
24 Crosby Drive
Bedford, MA 01730
(Name and Address of Agent for Service)

(781) 357-4000
(Telephone Number, Including Area Code, of Agent for Service)

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 Securities Act.

CALCULATION OF REGISTRATION FEE

| Title of Securities to be Registered | Amount to be Registered(1) | Proposed Maximum Offering Price Per Share(3) | Proposed Maximum Aggregate Offering Price(3) | Amount of Registration Fee |
|--|----------------------------|--|--|----------------------------|
| Common Stock, \$0.0001 par value per share | 10,222,670 shares (2) | N/A | N/A | N/A |

- (1) In accordance with Rule 416 under the Securities Act of 1933, as amended, 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 or similar transactions.
- (2) As described in the “Explanatory Note” below, this Post-Effective Amendment No. 1 to Registration Statement No. 333-198240, this Post-Effective Amendment No. 1 to Registration Statement No. 333-202886, this Post-Effective Amendment No. 1 to Registration Statement No. 333-210059, this Post-Effective Amendment No. 1 to Registration Statement No. 333-216622, this Post-Effective Amendment No. 1 to Registration Statement No. 333-223513, this Post-Effective Amendment No. 1 to Registration Statement No. 333-230126, this Post-Effective Amendment No. 1 to Registration Statement No. 333-237115 and this Post-Effective Amendment No. 1 to Registration Statement No. 333-254143 (together, the “Post-Effective Amendments”) are hereby being filed to provide that up to an aggregate of 10,222,670 shares of common stock, originally registered upon the filing of Registration Statements on Forms S-8 (File No. 333-198240, File No. 333-202886, File No. 333-210059, File No. 333-216622, File No. 333-223513, File No. 333-230126, File No. 333-237115 and File No. 333-254143) (together, the “Prior Registration Statements”) for issuance under the Ocular Therapeutix, Inc. 2006 Stock Incentive Plan, as amended (the “2006 Plan”), and the Ocular Therapeutix, Inc. 2014 Stock Incentive Plan (the “2014 Plan”), may be registered for issuance under the Ocular Therapeutix, Inc. 2021 Stock Incentive Plan, which was approved by the stockholders of Ocular Therapeutix, Inc. and became effective on June 18, 2021.
- (3) The filing fee for the registration of the offer of shares of common stock under the 2014 Plan and the 2006 Plan was paid in full upon the filing of the Prior Registration Statements. Pursuant to SEC Compliance and Disclosure Interpretation 126.43, no filing fee is required for these Post-Effective Amendments.

EXPLANATORY NOTE

On June 18, 2021 (the “Effective Date”), the registrant’s stockholders approved the Ocular Therapeutix, Inc. 2021 Stock Incentive Plan (the “2021 Plan”). The total number of shares of common stock authorized for issuance under the 2021 Plan consists of 6,000,000 new shares (registered concurrently on a new registration statement on Form S-8) and up to 10,222,670 shares under the 2021 Plan comprised of: (A) 456,334 shares reserved for issuance under the Ocular Therapeutix, Inc. 2014 Stock Incentive Plan (the “2014 Plan”) that remained available for grant as of June 18, 2021, and (B) up to 9,766,336 shares subject to awards granted under the Ocular Therapeutix, Inc. 2006 Stock Incentive Plan, as amended, and the 2014 Plan, which awards expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased pursuant to a contractual repurchase right (together, the “Prior Plan Shares”). As of the Effective Date, no new awards may be granted under the 2014 Plan.

In accordance with Item 512(a)(1)(iii) of Regulation S-K and Compliance and Disclosure Interpretation 126.43, this Post-Effective Amendment No. 1 to Registration Statement No. 333-198240, this Post-Effective Amendment No. 1 to Registration Statement No. 333-202886, this Post-Effective Amendment No. 1 to Registration Statement No. 333-210059, this Post-Effective Amendment No. 1 to Registration Statement No. 333-216622, this Post-Effective Amendment No. 1 to Registration Statement No. 333-223513, this Post-Effective Amendment No. 1 to Registration Statement No. 333-230126, this Post-Effective Amendment No. 1 to Registration Statement No. 333-237115 and this Post-Effective Amendment No. 1 to Registration Statement No. 333-254143 (together, the “Post-Effective Amendments”) are hereby filed to reflect the registration of the issuance of the Prior Plan Shares pursuant to the 2021 Plan.

PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

The information required by Item 1 is included in documents sent or given to participants in the plans covered by this registration statement pursuant to Rule 428(b)(1) of the Securities Act of 1933, as amended (the “Securities Act”).

Item 2. Registrant Information and Employee Plan Annual Information.

The written statement required by Item 2 is included in documents sent or given to participants in the plans covered by this registration statement pursuant to Rule 428(b)(1) of the Securities Act.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The registrant is subject to the informational and reporting requirements of Sections 13(a), 14, and 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and in accordance therewith files reports, proxy statements and other information with the Securities and Exchange Commission (the “Commission”). The following documents, which are on file with the Commission, are incorporated in this registration statement by reference:

(a) The registrant’s latest annual report filed pursuant to Section 13(a) or 15(d) of the Exchange Act or the latest prospectus filed pursuant to Rule 424(b) under the Securities Act that contains audited financial statements for the registrant’s latest fiscal year for which such statements have been filed.

(b) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the document referred to in (a) above.

(c) The description of the securities contained in the registrant's registration statement on Form 8-A filed under the Exchange Act, including any amendment or report filed for the purpose of updating such description.

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

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Wilmer Cutler Pickering Hale and Dorr LLP has opined as to the legality of the securities being offered by this registration statement.

Item 6. Indemnification of Directors and Officers.

The following summary is qualified in its entirety by reference to the complete Delaware General Corporation Law (the "DGCL"), the registrant's certificate of incorporation, and the registrant's by-laws.

Section 102 of the DGCL permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. The registrant's certificate of incorporation provides that no director shall be personally liable to the registrant or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses which the Court of Chancery or such other court shall deem proper.

The registrant's certificate of incorporation provides that the registrant will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the registrant), by reason of the fact that he or she is or was, or has agreed to become, the registrant's director or officer, or is or was serving, or has agreed to serve, at its request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, its best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

The registrant's certificate of incorporation also provides that the registrant will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in the registrant's favor by reason of the fact that the Indemnitee is or was, or has agreed to become, the registrant's director or officer, or is or was serving, or has agreed to serve, at its request as a director, officer, partner, employee or trustee or, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the registrant, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by the registrant against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. If the registrant does not assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

The registrant has entered into indemnification agreements with all of its directors and executive officers. In general, these agreements provide that the registrant will indemnify the director or officer to the fullest extent permitted by law for claims arising in his or her capacity as a director or officer of its company or in connection with their service at its request for another corporation or entity. The indemnification agreements also provide for procedures that will apply in the event that a director or officer makes a claim for indemnification and establish certain presumptions that are favorable to the director or officer.

The registrant maintains a general liability insurance policy that covers certain liabilities of its directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

Insofar as the forgoing provisions permit indemnification of directors, executive officers, or persons controlling the registrant for liability arising under the Securities Act, the registrant has been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following exhibits are incorporated herein by reference:

| <u>Number</u> | <u>Description</u> |
|------------------------|--|
| 4.1(1) | Restated Certificate of Incorporation of the Registrant, as amended |
| 4.2(2) | Amended and Restated By-Laws of the Registrant |
| 4.3(3) | Registration Rights Agreement, dated as of March 1, 2019, by and among the Registrant and the Purchasers identified therein |
| 5.1(4) | Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant, as to the legality of the securities being registered with respect to the 2006 Plan and the 2014 Plan that were originally registered on Registration Statement on Form S-8 (File No. 333-198240) |
| 5.2(5) | Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant, as to the legality of the securities being registered with respect to the 2014 Plan that were originally registered on Registration Statement on Form S-8 (File No. 333-202886) |
| 5.3(6) | Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant, as to the legality of the securities being registered with respect to the 2014 Plan that were originally registered on Registration Statement on Form S-8 (File No. 333-210059) |
| 5.4(7) | Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant, as to the legality of the securities being registered with respect to the 2014 Plan that were originally registered on Registration Statement on Form S-8 (File No. 333-216622) |

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| 5.5(8) | Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant, as to the legality of the securities being registered with respect to the 2014 Plan that were originally registered on Registration Statement on Form S-8 (File No. 333-223513) |
| 5.6(9) | Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant, as to the legality of the securities being registered with respect to the 2014 Plan that were originally registered on Registration Statement on Form S-8 (File No. 333-230126) |
| 5.7(10) | Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant, as to the legality of the securities being registered with respect to the 2014 Plan that were originally registered on Registration Statement on Form S-8 (File No. 333-237115) |
| 5.8(11) | Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant, as to the legality of the securities being registered with respect to the 2014 Plan that were originally registered on Registration Statement on Form S-8 (File No. 333-254143) |
| 5.9 | Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant |
| 23.1 | Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.9) |
| 23.2 | Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm |
| 24 | Power of Attorney (included on signature page) |
| 99.1(12) | 2006 Stock Incentive Plan, as amended |
| 99.2(13) | 2014 Stock Incentive Plan |
| 99.3(14) | 2021 Stock Incentive Plan |

(1) Previously filed with the Securities and Exchange Commission on August 9, 2021, as Exhibit 3.1 to the Registrant’s Quarterly Report on Form 10-Q (File No. 001-36554) and incorporated herein by reference.

(2) Previously filed with the Securities and Exchange Commission on July 30, 2014, as Exhibit 3.2 to the Registrant’s Current Report on Form 8-K (File No. 001-36554) and incorporated herein by reference.

(3) Previously filed with the Securities and Exchange Commission on March 7, 2019, as Exhibit 4.2 to the Registrant’s Annual Report on Form 10-K (File No. 001-36554) and incorporated herein by reference.

(4) Previously filed with the Securities and Exchange Commission on August 19, 2014, as exhibit 5.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-198240) and incorporated herein by reference.

(5) Previously filed with the Securities and Exchange Commission on March 20, 2015, as exhibit 5.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-202886) and incorporated herein by reference.

(6) Previously filed with the Securities and Exchange Commission on March 10, 2016, as exhibit 5.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-210059) and incorporated herein by reference.

(7) Previously filed with the Securities and Exchange Commission on March 10, 2017, as exhibit 5.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-216622) and incorporated herein by reference.

(8) Previously filed with the Securities and Exchange Commission on March 8, 2018, as exhibit 5.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-223513) and incorporated herein by reference.

(9) Previously filed with the Securities and Exchange Commission on March 7, 2019, as exhibit 5.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-230126) and incorporated herein by reference.

(10) Previously filed with the Securities and Exchange Commission on March 12, 2020, as exhibit 5.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-237115) and incorporated herein by reference.

(11) Previously filed with the Securities and Exchange Commission on March 11, 2021, as exhibit 5.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-254143) and incorporated herein by reference.

(12) Previously filed with the Securities and Exchange Commission on June 20, 2014, as Exhibit 10.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-196932) and incorporated herein by reference.

(13) Previously filed with the Securities and Exchange Commission on July 11, 2014, as Exhibit 10.4 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (File No. 333-196932) and incorporated herein by reference.

(14) Previously filed with the Securities and Exchange Commission on April 29, 2019, as Appendix A to the Registrant's Definitive Proxy Statement (File No. 001-36554) and incorporated herein by reference.

Item 9. Undertakings.

1. Item 512(a) of Regulation S-K. The undersigned registrant hereby undertakes:

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

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

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

(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 (ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

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

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

2. Item 512(b) of Regulation S-K. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

3. Item 512(h) of Regulation S-K. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused these Post-Effective Amendments to be signed on its behalf by the undersigned, thereunto duly authorized, in Bedford, Massachusetts on this 9th day of August, 2021.

OCULAR THERAPEUTIX, INC.

By: /s/ Antony Mattessich
Antony Mattessich
President and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Ocular Therapeutix, Inc. hereby severally constitute and appoint Antony Mattessich and Donald Notman, 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 Post-Effective Amendments filed herewith and any and all subsequent amendments to the Prior Registration Statements, and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Ocular Therapeutix, 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, as amended, these Post-Effective Amendments have 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/ Antony Mattessich</u> Antony Mattessich | President, Chief Executive Officer and Director (Principal executive officer) | August 9, 2021 |
| <u>/s/ Donald Notman</u> Donald Notman | Chief Financial Officer (Principal financial and accounting officer) | August 9, 2021 |
| <u>/s/ Charles Warden</u> Charles Warden | Chairman of the Board of Directors | August 9, 2021 |
| <u>/s/ Bruce A. Peacock</u> Bruce A. Peacock | Director | August 9, 2021 |
| <u>/s/ Jeffrey S. Heier</u> Jeffrey S. Heier, M.D. | Director | August 9, 2021 |
| <u>/s/ Richard L. Lindstrom</u> Richard L. Lindstrom | Director | August 9, 2021 |
| <u>/s/ Seung Suh Hong</u> Seung Suh Hong, Ph.D. | Director | August 9, 2021 |
| <u>/s/ Leslie Williams</u> Leslie Williams | Director | August 9, 2021 |

WILMERHALE

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wilmerhale.com

August 9, 2021

Ocular Therapeutix, Inc.
24 Crosby Drive
Bedford, MA 01730

Re: Post-Effective Amendments to Registration Statement on Form S-8 for Shares of Common Stock, par value \$0.0001 per share, of Ocular Therapeutix, Inc.

Ladies and Gentlemen:

We have assisted in the preparation of a Post-Effective Amendment No. 1 to Registration Statement No. 333-198240, a Post-Effective Amendment No. 1 to Registration Statement No. 333-202886, a Post-Effective Amendment No. 1 to Registration Statement No. 333-210059, a Post-Effective Amendment No. 1 to Registration Statement No. 333-216622, a Post-Effective Amendment No. 1 to Registration Statement No. 333-223513, a Post-Effective Amendment No. 1 to Registration Statement No. 333-230126, a Post-Effective Amendment No. 1 to Registration Statement No. 333-237115 and a Post-Effective Amendment No. 1 to Registration Statement No. 333-254143 (together, the "Post-Effective Amendments") to be filed by Ocular Therapeutix, Inc. (the "Company") with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"). The Post-Effective Amendments reflect that a portion of the shares of the common stock, \$0.0001 par value per share, of the Company (the "Common Stock") previously registered under the applicable registration statements (up to an aggregate of 10,222,670 shares of Common Stock) will become available for issuance under the Company's 2021 Stock Incentive Plan (the "2021 Plan"), pursuant to the terms and conditions of the 2021 Plan (such shares, the "Prior Plan Shares").

We have examined the Certificate of Incorporation and By-Laws of the Company, each as amended and restated to date, and originals, or copies certified to our satisfaction, of all pertinent records of the meetings of the directors and stockholders of the Company, the Post-Effective Amendments and such other documents relating to the Company as we have deemed material for the purposes of this opinion.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, photostatic or other copies, the authenticity of the originals of any such documents and the legal competence of all signatories to such documents.

We assume that the appropriate action will be taken, prior to the offer and sale of the Prior Plan Shares in accordance with the 2021 Plan, to register and qualify the Prior Plan Shares for sale under all applicable state securities or "blue sky" laws.

Wilmer Cutler Pickering Hale and Dorr LLP, 7 World Trade Center, 250 Greenwich Street, New York, New York 10007

Beijing Berlin Boston Brussels Denver Frankfurt London Los Angeles New York Palo Alto San Francisco Washington

Ocular Therapeutix, Inc.
August 9, 2021
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We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statements to which the Post-Effective Amendments relate are in effect. Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters.

Based on the foregoing, we are of the opinion that the Prior Plan Shares have been duly authorized for issuance and, when the Prior Plan Shares are issued and paid for in accordance with the terms and conditions of the 2021 Plan, the Prior Plan Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion with the Commission in connection with the Post-Effective Amendments in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

WILMER CUTLER PICKERING HALE AND DORR LLP

By: /s/ Brian A. Johnson

Brian A. Johnson, a Partner

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Ocular Therapeutix, Inc. of our report dated March 11, 2021 relating to the financial statements, which appears in Ocular Therapeutix, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2020.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
August 9, 2021
