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

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**FORM S-8  
REGISTRATION STATEMENT**  
*Under*  
**THE SECURITIES ACT OF 1933**

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**LARIMAR THERAPEUTICS, INC.**  
(Exact Name of Registrant as Specified in its Charter)

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**Delaware**  
(State or other jurisdiction of incorporation or  
organization)

**20-3857670**  
(I.R.S. Employer Identification No.)

**Three Bala Plaza East, Suite 506  
Bala Cynwyd, Pennsylvania 19004  
(844) 511-9056**  
(Address, including zip code, of principal executive offices)

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**Substitute Option Grants issued to replace options awarded under the  
Chondrial Therapeutics Holdings, LLC 2016 Equity Incentive Plan**  
(Full title of the plans)

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**Carole Ben-Maimon  
President and Chief Executive Officer  
Larimar Therapeutics, Inc.  
Three Bala Plaza East, Suite 506  
Bala Cynwyd, Pennsylvania 19004  
(844) 511-9056**  
(Name, address and telephone number, including area code, of agent for service)

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**Copies to:**

**Rachael M. Bushey  
Jennifer Porter  
Pepper Hamilton LLP  
3000 Two Logan Square  
Philadelphia, Pennsylvania 19103  
(215) 981-4331**

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Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

Large accelerated filer   
Non-accelerated filer

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.

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**CALCULATION OF REGISTRATION FEE**

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Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common stock, \$0.001 par value per share	330,818	\$12.14(2)	\$4,016,130.52	\$521.30
Total	330,818	—	\$4,016,130.52	\$521.30

- (1) Pursuant to Rule 416 of the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement shall also cover any additional shares of common stock, par value \$0.001 per share (“Common Stock”) of Larimar Therapeutics, Inc. (the “Company”) which become issuable by reason of any future stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration by the Company, which results in an increase in the number of the outstanding shares of Common Stock.
- (2) For purposes of computing the registration fee only. Pursuant to Rule 457(c) and (h) of the Securities Act, the Proposed Maximum Offering Price Per Share is based upon the weighted-average exercise price of these substitute options (rounded up to the nearest cent).

## EXPLANATORY NOTE

On May 28, 2020, the Company (formerly known as Zafgen, Inc.) completed its business combination with Chondrial Therapeutics, Inc. (“Chondrial”) in accordance with the terms of the Agreement and Plan of Merger and Reorganization, dated as of December 17, 2019, as amended (the “Merger Agreement”), by and among the Company, Zordich Merger Sub, Inc., a wholly owned subsidiary of the Company (“Merger Sub”), Chondrial and Chondrial Therapeutics Holdings, LLC (“Holdings”), pursuant to which Merger Sub merged with and into Chondrial, with Chondrial surviving as a wholly owned subsidiary of the Company (the “Merger”). In connection with, and immediately prior to the completion of the Merger, the Company effected a reverse stock split of the Company’s Common Stock at a ratio for 1-for-12. Following completion of the Merger, the Company changed its name from “Zafgen, Inc.” to “Larimar Therapeutics, Inc.” and the business conducted by the Company became primarily the business conducted by Chondrial, which is a clinical-stage biotechnology company focused on developing treatments for patients suffering from complex rare diseases using its novel cell penetrating peptide technology platform.

In connection with the Merger, options for Common Stock were substituted for all outstanding and unexercised stock options to purchase units of Holdings. Pursuant to the terms of the Merger Agreement, the number of shares of Common Stock subject to each such substitute option was determined by multiplying (A) the number of Holdings units that were subject to such Holdings option, as in effect prior to the effective time of the Merger, by (B) the total number of outstanding shares of Chondrial common stock on a fully diluted basis, as in effect prior to the effective time of the Merger, by (C) a fraction, the numerator of which is one and the denominator of which is the fully diluted number of Holdings units as of such time, by (D) 60,912.5005 (the exchange ratio applicable in the Merger), and rounding the resulting number down to the nearest whole number of shares of Common Stock. The per share exercise price for shares of Common Stock issuable upon exercise of each such substitute option was determined in accordance with applicable tax regulations to cause the aggregate “spread” of the substitute option (i.e., the difference between the fair market value of the stock subject to the option and the exercise price of the option) immediately following the closing of the Merger, to be equal to the aggregate spread of the Holdings options for which it was substituted, as measured immediately prior to the closing of the Merger.

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

The information specified in Part I of Form S-8 is omitted from this filing in accordance with the provisions of Rule 428 under the Securities Act and the introductory note to Part I of the Form S-8 instructions. The documents containing the information specified in Part I will be delivered to the recipients of substitute option grants as required by Rule 428(b)(1) under the Securities Act.

### PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 3. Incorporation of Documents by Reference.

The following documents, which have been filed by the Company with the United States Securities and Exchange Commission (the “Commission”) pursuant to the Securities Act with respect to item (a) below and the Exchange Act, with respect to item (b) below, are incorporated by reference in, and shall be deemed to be a part of, this Registration Statement:

- (a) the Registrant’s Annual Report on [Form 10-K](#) for the year ended December 31, 2019, filed with the Commission on March 5, 2020 which contains the Company’s audited financial statements for the latest fiscal year for which such statements have been filed;
- (b) The Registrant’s Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2020, filed with the Commission on May 7, 2020;
- (c) the Registrant’s Current Reports on Form 8-K (in each case other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports related to such items) filed with the Commission on [January 13, 2020](#), [March 9, 2020](#), [April 24, 2020](#) and [June 2, 2020](#) and the Registrant’s Current Report on Form 8-K/A filed with the Commission on [June 26, 2020](#);

(d) the Registrant's Definitive Proxy Statement on [Schedule 14A](#) filed with the Commission on April 29, 2020 (the Chondrial Therapeutics, Inc. financial statements and the report thereon from the Company's independent registered public accounting firm have been superseded by the financial statements and report thereon included in Larimar Therapeutics, Inc's Current Report on Form 8-K/A filed on June 26, 2020); and

(e) the description of the Common Stock contained in the Registrant's Registration Statement on [Form 8-A](#) filed with the Commission on June 18, 2014 (File No. 001-36510), together with any amendment thereto filed with the Commission for the purpose of updating such description.

All reports and other documents filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (other than information furnished under Item 2.02 or 7.01 of Form 8-K and exhibits furnished on such form that relate to such items unless such form expressly provides to the contrary) after the date hereof and prior to the filing of a post-effective amendment which indicates that all securities offered pursuant to this Registration Statement have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents or reports.

For purposes of this Registration Statement, any document or any statement contained in a document incorporated or deemed to be incorporated herein by reference shall be deemed to be modified or superseded to the extent that a subsequently filed document or a statement contained therein, or in any other subsequently filed document which also is or is deemed to be incorporated by reference, modifies or supersedes such document or such statement in such document. 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.**

Not applicable.

**Item 6. Indemnification of Directors and Officers.**

Section 145 of the Delaware General Corporation Law ("[DGCL](#)") permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by the current law.

The Registrant's ninth amended and restated certificate of incorporation provides for the a limitation of the personal liability of directors, except for (a) any breach of the director's duty of loyalty to the Registrant or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law, (c) under Section 174 of the DGCL or (d) for any transaction for which the director derived an improper personal benefit.

The Registrant's amended and restated by-laws provide for the indemnification of officers, directors and third parties acting on the Registrant's behalf to the fullest extent authorized by the DGCL if such persons act in good faith and in a manner reasonably believed to be in and not opposed to the Registrant's best interest, and, with respect to any criminal action or proceeding, such indemnified party had no reason to believe his or her conduct was unlawful.

The Registrant has entered into indemnification agreements with each of its directors, in addition to the indemnification provisions provided for in its charter documents, and the Registrant intends to enter into indemnification agreements with any new directors in the future. These agreements provide for indemnification for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were agents of the Registrant.

The Registrant has purchased and maintains insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in that capacity, subject to certain exclusions and limits of the amount of coverage.

These indemnification provisions and the indemnification agreements entered into between the Registrant and directors may be sufficiently broad to permit indemnification of the Registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

The following documents are filed as exhibits to this Registration Statement:

<b>Exhibit Number</b>	<b>Description of Exhibit</b>
4.1	<a href="#">Ninth Amended and Restated Certificate of Incorporation of Larimar Therapeutics, Inc. (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on June 24, 2014)</a>
4.2	<a href="#">Certificate of Amendment of Ninth Amended and Restated Certificate of Incorporation of Zafgen, Inc. related to the Reverse Stock Split, dated May 28, 2020 (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on June 2, 2020)</a>
4.3	<a href="#">Certificate of Amendment of Ninth Amended and Restated Certificate of Incorporation of Zafgen, Inc. related to the Name Change, dated May 28, 2020 (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on June 2, 2020)</a>
4.4	<a href="#">Amended and Restated Bylaws of Larimar Therapeutics, Inc. (incorporated herein by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on June 24, 2014)</a>
4.5*	<a href="#">Form of Larimar Therapeutics, Inc. Notice of Substitute Option Grant and Substitute Stock Option Agreement</a>
5.1*	<a href="#">Opinion of Pepper Hamilton LLP as to the legality of the securities being registered</a>
23.1*	<a href="#">Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm</a>
23.2*	<a href="#">Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm</a>
23.3*	<a href="#">Consent of Pepper Hamilton LLP (contained in Exhibit 5.1)</a>
24.1*	<a href="#">Powers of Attorney (included on the signature page of the Registration Statement)</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 set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities

offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement;

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

*provided, however*, that paragraphs (a)(1)(i) and (a)(1)(ii) shall not apply if the information required to be included on a post-effective amendment by those paragraphs is contained in periodic reports filed by 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 this Registration Statement.

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

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

(b) 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 herein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the 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 Company 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.

#### SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Bala Cynwyd, Commonwealth of Pennsylvania, on this 26th day of June, 2020.

**LARIMAR THERAPEUTICS, INC.**

By: /s/ Carole Ben-Maimon

Carole Ben-Maimon

*President, Chief Executive Officer and Director*

#### POWER OF ATTORNEY

**KNOW ALL PERSONS BY THESE PRESENTS**, that each person whose signature appears below hereby constitutes and appoints Carole Ben-Maimon and Michael Celano, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution, for him or her in any and all capacities, to sign any and all

amendments to this Registration Statement (including post-effective amendments or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) under the Securities Act increasing the number of securities for which registration is sought), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorney-in-fact, proxy, and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact, proxy and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, 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/ Carole Ben-Maimon</u> Carole Ben-Maimon	President, Chief Executive Officer and Director (Principal Executive Officer)	June 26, 2020
<u>/s/ Michael Celano</u> Michael Celano	Chief Financial Officer (Principal Financial and Accounting Officer)	June 26, 2020
<u>/s/ Joseph Truitt</u> Joseph Truitt	Chairman, Board of Directors	June 26, 2020
<u>/s/ Peter Barrett</u> Peter Barrett	Director	June 26, 2020
<u>/s/ Thomas O. Daniel</u> Thomas O. Daniel	Director	June 26, 2020
<u>/s/ Thomas Edward Hamilton</u> Thomas Edward Hamilton	Director	June 26, 2020
<u>/s/ Jonathan Leff</u> Jonathan Leff	Director	June 26, 2020
<u>/s/ Frank E. Thomas</u> Frank E. Thomas	Director	June 26, 2020

## LARIMAR THERAPUEUTICS, INC.

## NOTICE OF SUBSTITUTE OPTION GRANT

Name of Optionee:	
Total Number of Shares subject to the Option:	
Type of Option	Nonstatutory option (NSO)
Exercise Price per Share:	\$
Option Substitution Date:	May 28, 2020
Vesting Schedule:	<p>This Option has or will become vested and exercisable as follows:</p> <ul style="list-style-type: none"> <li>• With respect to 25% of the total number of Shares subject to this Option, when the Optionee completed or completes one year of Service after the Vesting Commencement Date; and</li> <li>• With respect to an additional 2.0833% of the Shares subject to this Option, when the Optionee completed or completes each month of Service thereafter, until the Option is fully vested and exercisable on the four year anniversary of the Vesting Commencement Date.</li> </ul> <p>In addition, upon a termination of Service prior to May 28, 2021 either (i) by the Company without Cause or (ii) by the Optionee for Good Reason, any then unvested portion of the Option shall immediately become fully vested and exercisable.</p>
Vesting Commencement Date:	
Expiration Date:	



By signing below, the Optionee and the Company agree that the option to purchase Shares indicated above is governed by the terms of the Substitute Option Agreement, which is attached to and made a part of this Notice of Substitute Option Grant. **The Substitute Option Agreement includes important acknowledgments of the Optionee.**

**OPTIONEE:**

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**Name:**

**Date:**

**LARIMAR THERAPEUTICS, INC.**

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**By:**

**Title:**

**Date:**

LARIMAR THERAPEUTICS, INC.

SUBSTITUTE OPTION AGREEMENT

On May 28, 2020, Lamar Therapeutics, Inc. (f/k/a Zafgen, Inc.) (the “**Company**”) completed a business combination with Chondrial Therapeutics, Inc. Immediately prior to the completion of that transaction, the Optionee held an outstanding option to purchase common units of Chondrial Therapeutics Holdings, LLC (the “**Holdings Option**”) granted under the Chondrial Therapeutics Holdings, LLC 2016 Equity Incentive Plan (the “**Holdings Plan**”). Pursuant to the terms of the business combination and Section 10(b)(iii) of the Holdings Plan, this option to purchase Shares of the Company (the “**Larimar Option**” or the “**Option**”) has been substituted for the Holdings Option. This Substitute Option Agreement (the “**Agreement**”) sets forth the terms and conditions of the Larimar Option. Capitalized terms not otherwise defined herein have the meanings set forth below in Section 18.

The Agreement is entered into as of May 28, 2020 and shall be administered by the Board of Directors of the Company (the “**Board**”) or the compensation committee thereof (the “**Administrator**”), as further described below in Section 8.

**Section 1. GRANT OF OPTION.**

On the terms and conditions set forth in the Notice of Substitute Option Grant and this Agreement, the Company hereby grants to the Optionee this Option to purchase at the Exercise Price the number of Shares set forth in the Notice of Substitute Option Grant. The Option is intended to be a Nonstatutory Option. The Exercise Price shall be payable in a form described in Section 4 below.

**Section 2. RIGHT TO EXERCISE.**

The Option shall not be exercisable unless the Optionee has delivered an executed copy of this Agreement to the Company. The Option will become vested and exercisable in accordance with the Vesting Schedule set forth on the Notice of Substitute Option Grant. Subject to the conditions set forth in this Agreement, the vested portion of the Option may be exercised at any time prior to its expiration.

**Section 3. NO TRANSFER OR ASSIGNMENT OF OPTION.**

This Option is not transferable or assignable by the Optionee other than by will or by the laws of descent and distribution. Any other attempt to transfer the Option, whether voluntary or involuntary, by operation of law or otherwise, will be ineffective. During the Optionee’s lifetime, the Option is exercisable only by the Optionee. Subject to the foregoing, the terms and conditions of the Option will be binding upon the Optionee’s executors, administrators and heirs.

**Section 4. EXERCISE PROCEDURES.**

(a) **Notice of Exercise.** The Optionee may exercise this Option by giving written notice to the Company. The notice shall specify the election to exercise this Option, the number of Shares for which it is being exercised and the form of payment. The Optionee shall

deliver to the Company, at the time of giving the notice, payment in a form permissible under this Section 4 for the full amount of the Exercise Price. As set forth in Section 19 hereto, the written exercise notice must also be accompanied by any further documents or instruments necessary or desirable to carry out the purposes or intent of this Agreement.

(b) **Exercise Price.** The Optionee shall pay to the Company the Exercise Price in cash or by such other means as the Administrator may authorize from time to time.

(c) **No Rights as Stockholder until Exercise.** This Agreement does not confer upon the Optionee any of the rights or privileges of a stockholder in the Company unless and until the Optionee exercises the Option and is issued Shares hereunder.

(d) **Withholding Taxes.** Any exercise of this Option will be conditioned on the Optionee making arrangements satisfactory to the Administrator to satisfy any federal, state, local or foreign withholding tax obligations. Unless otherwise determined by the Administrator, the withholding obligation may be satisfied, in whole or in part, by the withholding of Shares otherwise issuable hereunder with an aggregate Fair Market Value equal to such withholding obligation (or the applicable portion thereof).

#### **Section 5. TERM AND EXPIRATION.**

(a) **Basic Term.** This Option shall in all events expire on the Expiration Date set forth in the Notice of Substitute Option Grant, which date is no later than ten (10) years after the original date of grant of the Holdings Option.

(b) **Termination of Service.** Upon a termination of Service, the unvested portion of the Option shall immediately be forfeited and the vested but unexercised portion of the Option (including any portion of the Option that became vested in connection with the termination of Service) shall expire in accordance with this Section 5(b).

(1) **For Cause.** If an Optionee's Service is terminated by the Company for Cause, the vested portion of the Option shall automatically and immediately be forfeited by the Optionee on the date of termination.

(2) **Due to Death.** If an Optionee's Service is terminated due to the Optionee's death, the Option may be exercised, to the extent vested prior to the Optionee's death, by the executor or administrator of the Optionee's estate or by any person who has acquired the Option by beneficiary designation, bequest or inheritance, prior to the earlier of: (i) the Expiration Date or (ii) the twelve (12) month anniversary of the Optionee's death.

(3) **For Any Other Reason.** If the Optionee's Service is terminated for any reason other than for Cause or due to the death of the Optionee, the Option may be exercised, to the extent vested prior to and/or in connection with the Optionee's termination of Service, prior to the earlier of: (i) the Expiration Date or (ii) the date three (3) months after the Optionee's termination of Service.

**Section 6. LEGALITY OF ISSUANCE.**

(a) No Shares shall be issued upon the exercise of this Option unless and until the Company has determined that:

(1) it and the Optionee have taken any actions required to register such Shares under the Securities Act or to perfect an exemption from the registration requirements thereof;

(2) the Optionee has made such representations and warranties to the Company in connection with the issuance and acquisition of Shares as the Company deems satisfactory;

(3) any applicable listing requirement of any stock exchange or other securities market on which the Company's equity is listed has been satisfied; and

(4) any other applicable provision of federal, State or foreign law has been satisfied.

(b) All Shares issued upon exercise of this Option shall be subject to such transfer restrictions as are required or deemed advisable under the provisions of any applicable law.

(c) Any determination by the Company and its counsel in connection with any of the matters set forth in this section shall be conclusive and binding on the Optionee and all other Persons.

**Section 7. OBLIGATIONS OF OPTIONEE.**

If the Participant violates or contests any non-competition, non-solicitation, confidentiality or other restrictive covenant in favor of the Company or any of its Affiliates and such violation, if curable, is not cured within five days after written notice thereof, then in addition to any other remedies available to the Company or its Affiliates, the Option (including all vested and unvested portions thereof) shall be forfeited.

**Section 8. ADMINISTRATION.**

The Administrator shall have full authority and discretion to take any actions it deems necessary or advisable for the administration of this Option, including by deciding or resolving any and all questions, including interpretations of this Agreement, as may arise in connection with the Option. The decision or action of the Administrator with respect to any questions arising out of, or in connection with, the administration, interpretation and application of this Agreement shall be final and conclusive and binding upon all Persons having any interest in this Option.

**Section 9. ADJUSTMENT OF SHARES.**

In the event that the number of outstanding Shares is changed by a stock dividend, recapitalization, stock split, spin-off, reverse stock split, subdivision, combination, reclassification or other change in the capital structure of the Company affecting the Shares without consideration, then in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under this Option, the number of Shares then subject hereto and the Exercise Price will be equitably adjusted by the Administrator, subject to compliance with applicable laws; provided, however, that fractions of Shares will not be issuable hereunder but will be rounded down to the nearest whole Share.

**Section 10. LIQUIDATION EVENT**

If a Liquidation Event occurs, the Option shall be subject to the definitive agreement governing such Liquidation Event. Such governing agreement, without requiring consent of the Optionee, shall provide for one or more of the following:

(a) The continuation of the Option by the Company (if the Company is the surviving entity).

(b) The assumption of the Option by the surviving entity or its parent in a manner that would comply with Section 424(a) of the Code, if such section were applicable.

(c) The substitution by the surviving entity or its parent of a new option for the Option in a manner that would comply with Section 424(a) of the Code, if such section were applicable.

(d) The Optionee shall be able to exercise the Option, to the extent vested, during a period of not less than five (5) full business days preceding the closing date of the Liquidation Event, unless (1) a shorter period is required to permit a timely closing of the Liquidation Event and (2) such shorter period still offers the Optionee a reasonable opportunity to exercise the Option. Any exercise of the Option during such period may be contingent on the closing of the Liquidation Event.

(e) The cancellation of the Option and a payment to the Optionee equal to the excess of (A) the Fair Market Value as of the closing date of the Liquidation Event over (B) the Exercise Price, multiplied by either (i) the total number of outstanding Shares subject to the Option or (ii) the number of outstanding vested Shares subject to the Option, at the discretion of the Administrator. Such payment shall be made in the form of cash, cash equivalents, or securities of the surviving entity or its parent with a Fair Market Value equal to the required amount. Such payment may be made in installments and may be deferred until the date or dates when the Option would have become exercisable. Such payment may be subject to vesting based on the Optionee's continuing Service, provided that the vesting schedule shall not be less favorable to the Optionee than the schedule under which such Option would have become exercisable. If the Exercise Price exceeds the Fair Market Value as of the closing date of the Liquidation Event, then the Option may be cancelled without payment to the Optionee.

(f) The full or partial vesting of any otherwise unvested portion of the Option upon the closing of the Liquidation Event.

(g) The cancellation of the Option (whether vested or unvested) for no payment of consideration.

**Section 11. SUCCESSORS AND ASSIGNS.**

Except as otherwise expressly provided to the contrary in Section 3 hereof, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the Company and its successors and assigns and be binding upon the Optionee and the Optionee's legal representatives, heirs, legatees, distributees, assigns and transferees by operation of law, whether or not any such person has become a party to this Agreement or has agreed in writing to join herein and to be bound by the terms, conditions and restrictions hereof.

**Section 12. NO RETENTION RIGHTS.**

Nothing in this Agreement shall confer upon the Optionee any right to continue in Service for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Company (or any Affiliate of the Company) or of the Optionee, which rights are hereby expressly reserved by each, to terminate the Optionee's Service at any time and for any reason, with or without Cause.

**Section 13. APPLICABLE POLICIES.**

The Optionee hereby agrees that he or she will be subject to all policies of the Company and its Affiliates regarding clawbacks, securities trading, hedging or pledging of securities and all similar matters that may be in effect from time to time.

**Section 14. NOTICE.**

Any notice required by the terms of this Agreement shall be given in writing. It shall be deemed effective upon (i) personal delivery, (ii) deposit with the United States Postal Service, by registered or certified mail, with postage and fees prepaid, (iii) deposit with a recognized over-night carrier, with shipping charges prepaid, or (iv) electronic delivery in a manner specified by the Company. Notice shall be addressed to the Company at its principal executive office and to the Optionee at the most recent address contained in the personnel records of the Company (or such other address that he or she most recently provided to the Company in accordance with this Section 14).

**Section 15. ENTIRE AGREEMENT.**

The Notice of Substitute Option Grant and this Agreement constitute the entire contract between the parties hereto with regard to the subject matter hereof. They supersede any other agreements, representations or understandings (whether oral or written and whether express or implied) that relate to the subject matter hereof, including but not limited to that certain Notice of Option Grant and Option Agreement evidencing the Holdings Option.

**Section 16. CHOICE OF LAW.**

This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, as such laws are applied to contracts entered into and performed in such State.

**Section 17. ACKNOWLEDGEMENTS AND AGREEMENTS OF THE OPTIONEE.**

(a) **Tax Consequences.** The Optionee agrees that the Company does not have a duty to design or administer its compensation programs in a manner that minimizes the Optionee's tax liabilities. The Optionee shall not make any claim against the Company, or any of its officers, directors, or employees related to tax liabilities arising from the grant to the Optionee of this Option, or the Optionee's exercise or ownership of Shares, or the Optionee's other compensation. The Optionee acknowledges that the Company has encouraged the Optionee to consult his or her own adviser to determine the tax consequences of acquiring the Shares.

(b) **Electronic Delivery of Documents.** The Optionee agrees that the Company may deliver by email all documents relating to this Agreement or the Shares (including, without limitation, a prospectus) and all other documents that the Company is required to deliver to its security holders (including, without limitation, reports, proxy statements or other documents that are required to be delivered to participants in such arrangements pursuant to federal or state laws, rules or regulations). The Optionee also agrees that the Company may deliver these documents by posting them on a website maintained by the Company or by a third party under contract with the Company. If the Company posts these documents on a website, it shall notify the Optionee by email of their availability. Upon written request, the Company will provide to the Optionee a paper copy of any document also delivered to the Optionee electronically. The authorization described in this paragraph may be revoked by the Optionee any time by written notice to the Company.

(c) **No Notice of Expiration Date.** The Optionee agrees that the Company and its officers, employees, attorneys and agents do not have any obligation to notify Optionee prior to the expiration of this Option, regardless of whether this Option will expire at the end of its full term or on an earlier date related to the termination of the Optionee's Service or otherwise. The Optionee further agrees that he or she has the sole responsibility for monitoring the expiration of this Option and for exercising this Option, if at all, before it expires. This Section 17(c) shall supersede any contrary representation that may have been made, orally or in writing, by the Company or by an officer, employee, attorney or agent of the Company.

**Section 18. DEFINITIONS.**

(a) **"Affiliate"** shall mean, with respect to a Person, a Person that directly or indirectly controls, is controlled by, or is under common control with such Person.

(b) **"Cause"** shall mean: (x) a good faith finding by the Company's or its successor's Board (i) of a willful failure of the Optionee to perform his or her reasonably assigned duties for the Company under any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Optionee and the Company, where such duties are commensurate with the Optionee's position, which failure is not

cured within ten (10) days after written notice thereof, unless the Board determines in good faith such failure is not curable, or (ii) that the Optionee has engaged in a material act of dishonesty, gross negligence or material misconduct; (y) the conviction of the Optionee of, or the entry of a pleading of guilty by the Optionee to, a felony; or (z) a breach by the Optionee of any material provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Optionee and the Company, which breach is not cured within ten (10) days after written notice thereof unless the Board determines in good faith such breach is not curable.

(c) **“Code”** shall mean the Internal Revenue Code of 1986, as amended.

(d) **“Good Reason”** for termination shall exist upon, without the Optionee’s written consent: (x) a change by the Company in the location at which the Optionee performs his or her principal duties for the Company of more than 25 miles from the location at which the Optionee was performing his or her principal duties for the Company prior to such change; (y) a reduction of the Optionee’s monthly cash compensation; or (z) a material adverse change in the Optionee’s title, authority or duties; and provided further that no such event or condition shall constitute Good Reason unless the Optionee gives the Company a written notice of termination not more than 120 days after the initial existence of the condition.

(e) **“Exercise Price”** shall mean the amount for which one Share may be purchased upon exercise of the Option, subject to adjustment hereunder.

(f) **“Fair Market Value”** shall mean, as of any date, the value of a Share determined as follows: (i) if the Shares are listed on any established stock exchange or a national market system, including, without limitation, the Nasdaq Global Market, the Fair Market Value of a Share will be the closing sales price for such stock as quoted on that system or exchange (or the system or exchange with the greatest volume of trading in Shares) at the close of regular hours trading on the day of determination; (ii) if the Shares are regularly quoted by recognized securities dealers but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for Shares at the close of regular hours trading on the day of determination; or (iii) if Shares are not traded as set forth above, the Fair Market Value will be determined in good faith by the Administrator taking into consideration such factors as the Administrator considers appropriate, such determination by the Administrator to be final, conclusive and binding. Notwithstanding the foregoing, in connection with a Liquidation Event, Fair Market Value shall be determined in good faith by the Administrator, such determination by the Administrator to be final, conclusive and binding.

(g) **“Liquidation Event”** shall mean (1) any merger, consolidation, recapitalization or sale of the Company, transfer of Shares or other transaction or series of transactions in which the stockholders of the Company immediately prior to such transaction do not own and control a majority of the voting power represented by the outstanding equity of the Company after the closing of such transaction or, in the case of any merger or consolidation of the Company, of the surviving entity after the closing of such transaction, (2) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Company or any subsidiary or subsidiaries of the Company, of all or substantially all the assets of the Company and its subsidiaries taken as a whole (or, if substantially all the assets of the



Company and its subsidiaries taken as a whole are held by one or more subsidiaries, the sale or disposition (whether by consolidation, merger, conversion or otherwise) of such subsidiaries of the Company), except where such sale, lease, transfer or other disposition is made to the Company or one or more wholly owned subsidiaries of the Company, or (3) any liquidation, dissolution or winding up, voluntary or involuntary, of the Company.

(h) **“Notice of Substitute Option Grant”** shall mean the document so entitled to which this Agreement is attached.

(i) **“Nonstatutory Option”** shall mean an option that is not intended to be an “incentive stock option” within the meaning of Section 422 of the Code.

(j) **“Optionee”** shall mean the Person named in the Notice of Substitute Option Grant.

(k) **“Person”** shall mean an individual, partnership, corporation, limited liability company, trust, joint venture, unincorporated association, or other entity or association.

(l) **“Service”** shall mean continued service as an employee, consultant, or advisor of the Company or its Affiliate (or, prior to May 28, 2020, to Chondrial Therapeutics, Inc. or its Affiliates). The Optionee shall not be deemed to have ceased to provide Service while the Optionee is on a bona fide leave of absence, if such leave was approved by the Company in writing or as otherwise required by law. In the case of an approved leave of absence, the Administrator may make provisions respecting crediting of service, including suspension of vesting of the option (including pursuant to a formal policy adopted from time to time by the Company). The Administrator will have sole discretion to determine whether the Optionee has ceased to provide Service and the effective date on which the Optionee ceased to provide Service.

(m) **“Share”** shall mean a share of common stock of the Company, par value \$0.001.

#### **Section 19. FURTHER ASSURANCES.**

The parties agree to execute such further documents and instruments and to take such further actions as may be reasonably necessary to carry out the purposes and intent of this Agreement.



3000 Two Logan Square  
 Eighteenth and Arch Streets  
 Philadelphia, PA 19103-2799  
 215.981.4000  
 Fax 215.981.4750

June 26, 2020

Larimar Therapeutics, Inc.  
 Three Bala Plaza East, Suite 506  
 Bala Cynwyd, PA 19004

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

Reference is made to the registration statement on Form S-8 (the “**Registration Statement**”) of Larimar Therapeutics, Inc., a Delaware corporation (the “**Company**”), filed on the date hereof with the Securities and Exchange Commission (the “**Commission**”) under the Securities Act of 1933, as amended (the “**Securities Act**”). The Registration Statement covers an aggregate of 330,818 shares of the Company’s Common Stock, par value \$0.001 per share (the “**Shares**”), which are subject to options which were substituted for all outstanding and unexercised options to purchase units of Chondrial Therapeutics Holdings, LLC (“**Holdings**”) in connection with the Company’s completion of its business combination with Chondrial Therapeutics, Inc. (“**Chondrial**”), in accordance with the terms of the Agreement and Plan of Merger and Reorganization, dated as of December 17, 2019 (the “**Merger Agreement**”), by and among the Company, Zordich Merger Sub Inc., a wholly owned subsidiary of the Company (“**Merger Sub**”), Chondrial and Holdings, pursuant to which Merger Sub merged with and into Chondrial, with Chondrial surviving as a wholly owned subsidiary of the Company (the “**Merger**”) and are issuable pursuant to the Company’s Substitute Stock Option Award Agreements with certain employees (the “**Substitute Option Award Agreements**”). You have requested that we render the opinion set forth in this letter and we are furnishing this opinion to you pursuant to the requirements of Item 601(b)(5) of Regulation S-K, in connection with the filing of the Registration Statement. No opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the related prospectuses, other than as expressly stated herein with respect to the issuance of the Shares.

For purposes of this opinion letter, we have examined the Registration Statement, including the exhibits thereto, the originals or copies, certified or otherwise identified to our satisfaction, of the Ninth Amended and Restated Articles of Incorporation, as amended, and the Amended and Restated Bylaws of the Company, the Merger Agreement and such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including telecopies). As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on.

	Philadelphia		Boston	Washington, D.C.	Los Angeles	New York	Pittsburgh
Detroit		Berwyn	Harrisburg	Orange County	Princeton	Silicon Valley	Wilmington

www.pepperlaw.com

Larimar Therapeutics, Inc.

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June 26, 2020

Subject to the foregoing and the other matters set forth herein, it is our opinion that the Shares when issued in accordance with the terms of the Substitute Option Grant Award Agreements upon receipt by the Company of the consideration for the Shares specified in the Substitute Option Award Agreements, the Shares will be legally and validly issued, fully paid and nonassessable.

We are opining herein as to the General Corporation Law of the State of Delaware, and we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction or any other laws, or as to any matters of municipal law or the laws of any local agencies within any state, and the federal laws of the United States of America.

This opinion letter is given as of the date hereof, and we assume no obligation to supplement this opinion if any applicable law changes after the date hereof or if we become aware of any facts or circumstances that may change the opinions expressed herein after the date hereof. This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Securities Act.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In rendering this opinion and giving this consent, we do not admit that we are an "expert" within the meaning of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Pepper Hamilton LLP

\_\_\_\_\_  
Pepper Hamilton LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Larimar Therapeutics, Inc. of our report dated March 6, 2020, relating to the financial statements of Chondrial Therapeutics, Inc., which appears in Larimar Therapeutics, Inc.'s Current Report on Form 8-K/A filed on June 26, 2020.

/s/ PricewaterhouseCoopers LLP  
Philadelphia, Pennsylvania  
June 26, 2020

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Larimar Therapeutics, Inc. of our report dated March 5, 2020, related to the financial statements of Zafgen, Inc., which appears in Zafgen, Inc's Annual Report on Form 10-K for the year ended December 31, 2019.

/s/ PricewaterhouseCoopers LLP  
Boston, Massachusetts  
June 26, 2020