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

**FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Larimar Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

20-3857670
(I.R.S. Employer
Identification Number)

**Three Bala Plaza East, Suite 506
Bala Cynwyd, PA 19004
(484) 414-2700**

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

**Carole Ben-Maimon, M.D.
President and Chief Executive Officer
Larimar Therapeutics, Inc.
Three Bala Plaza East, Suite 506
Bala Cynwyd, PA 19004
(484) 414-2700**

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

Copies to:

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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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 Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, \$0.001 par value per share	12,860,272	\$13.29	\$170,913,015	\$22,184.51

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, this Registration Statement shall also cover any additional shares of the Registrant's common stock that become issuable by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant's outstanding shares of common stock.
- (2) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(c) solely for purposes of calculating the registration fee on the basis of the average of the high (\$13.98) and low (\$12.60) prices of Registrant's common stock as reported on The Nasdaq Global Market on June 24, 2020.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information contained in this prospectus is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. The selling stockholders may not sell these securities until the Securities and Exchange Commission declares the registration statement effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED JUNE 26, 2020.

PROSPECTUS



12,860,272 Shares of Common Stock

This prospectus of Larimar Therapeutics, Inc. (formerly known as Zafgen, Inc.), a Delaware corporation, or Larimar, relates to the offering and resale by the selling stockholders identified herein of up to 12,860,272 shares of common stock of Larimar, par value \$0.001 per share, or Common Stock. The shares offered by the selling stockholders consist of:

- 6,091,250 shares that were privately issued pursuant to an Agreement and Plan of Merger, dated as of December 17, 2019, as amended, or the Merger Agreement, by and among Larimar, Zordich Merger Sub, Inc., a wholly-owned subsidiary of Larimar, Chondrial Therapeutics, Inc. and Chondrial Therapeutics Holdings, LLC, in connection with our merger with Chondrial Therapeutics, Inc., or the Merger;
- 6,105,359 shares that were issued in a private placement pursuant to a Securities Purchase Agreement, dated May 28, 2020, or the Private Placement, by and among Larimar and the investors listed therein;
- 628,403 shares that are issuable upon exercise of pre-funded warrants to purchase shares of Common Stock that we issued in connection with the Private Placement on May 28, 2020; and
- 35,260 shares that were issued as compensation to a placement agent for services rendered to Larimar in connection with the Private Placement.

The shares of Common Stock described in this prospectus or in any supplement to this prospectus may be sold from time to time pursuant to this prospectus by the selling stockholders in ordinary brokerage transactions, in transactions in which brokers solicit purchases, in negotiated transactions, or in a combination of such methods of sale, at market prices prevailing at the time of sale, at prices related to such prevailing market prices, at fixed prices or prices subject to change, or at negotiated prices. See "Selling Stockholders" and "Plan of Distribution." We cannot predict when or in what amounts the selling stockholders may sell any of the shares offered by this prospectus.

We are not selling any shares of our Common Stock, and we will not receive any of the proceeds from the sale of shares by the selling stockholders. The selling stockholders will pay all brokerage fees and commissions and similar sale-related expenses. We are only paying expenses relating to the registration of the shares with the U.S. Securities and Exchange Commission. The registration of the shares of our Common Stock does not necessarily mean that any of such shares will be offered or sold by the selling stockholders.

Our Common Stock is listed on the Nasdaq Global Market under the symbol "LRMR." The last reported sale price of our Common Stock on June 25, 2020 was \$14.04 per share.

INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE THE "[RISK FACTORS](#)" BEGINNING ON PAGE 5 OF THIS PROSPECTUS AND ANY SIMILAR SECTION CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT OR ANY DOCUMENTS THAT ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS BEFORE INVESTING IN OUR SECURITIES

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

Prospectus dated _____, 2020

TABLE OF CONTENTS

	Page
ABOUT THIS PROSPECTUS	1
PROSPECTUS SUMMARY	2
RISK FACTORS	5
CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS	6
USE OF PROCEEDS	8
SELLING STOCKHOLDERS	9
PLAN OF DISTRIBUTION	15
DESCRIPTION OF CAPITAL STOCK	17
LEGAL MATTERS	21
EXPERTS	21
WHERE YOU CAN FIND MORE INFORMATION	21
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	21

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, pursuant to which the selling stockholders named herein may, from time to time, offer and sell or otherwise dispose of the shares of our common stock covered by this prospectus. If required, each time a selling stockholder offers common stock, in addition to this prospectus, we may provide you with a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to that offering. We may also use a prospectus supplement and any related free writing prospectus to add, update or change any of the information contained in this prospectus or in documents we have incorporated by reference.

You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front cover of this prospectus or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or shares of common stock are sold or otherwise disposed of on a later date. It is important for you to read and consider all information contained in this prospectus, including the documents incorporated by reference therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you under the captions “Where You Can Find Additional Information” and “Information Incorporated by Reference” in this prospectus.

Neither we nor the selling stockholders have authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement or related free writing prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement or related free writing prospectus. This prospectus and any accompanying prospectus supplement or related free writing prospectus, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor does this prospectus and any accompanying prospectus supplement or related free writing prospectus, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus, any prospectus supplement or any applicable free writing prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus, the applicable prospectus supplement and any applicable free writing prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

Unless the context otherwise requires, references in this prospectus to “Larimar,” the “Company,” “we,” “our” or “us” refer to Larimar Therapeutics, Inc. (formerly known as Zafgen, Inc.) and its subsidiaries, references to “Zafgen” refer to the Company prior to the completion of the Merger, references to “Chondrial” refer to Chondrial Therapeutics, Inc., a privately held corporation prior to the completion of the Merger, and references to “Merger Subsidiary” refer to Zordich Merger Sub, Inc., the Company’s wholly owned subsidiary following the Merger.

PROSPECTUS SUMMARY

This summary description about us and our business highlights selected information contained elsewhere in this prospectus or incorporated by reference into this prospectus. It does not contain all the information you should consider before investing in our securities. You should carefully read the entire prospectus, any applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our common stock discussed under the heading “Risk Factors” contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus forms a part.

The Company

We are a clinical-stage biotechnology company focused on developing treatments for patients suffering from complex rare diseases using our novel cell penetrating peptide technology platform. Our lead product candidate, CTI-1601, is a subcutaneously administered, recombinant fusion protein intended to deliver human frataxin, or FXN, an essential protein, to the mitochondria of patients with Friedreich’s Ataxia. Friedreich’s Ataxia is a rare, progressive and fatal disease in which patients are unable to produce enough FXN due to a genetic abnormality and for which there is currently no effective therapy. We have received orphan drug status, fast track designation, and rare pediatric disease designation from the FDA for CTI-1601.

We are currently evaluating CTI-1601 in a single ascending dose, or SAD, Phase 1 clinical trial in patients with Friedreich’s Ataxia. The first two cohorts of patients have completed the SAD clinical trial; however, due to the continued impact of coronavirus, or COVID-19, we have delayed initiation of the next cohort in the SAD clinical trial. We are conducting the clinical trial at one clinical trial site in New Jersey. Because Friedreich’s Ataxia is a rare disease, there are a limited number of patients in close proximity to the clinical trial site and clinical trial patients travel from throughout the United States to the clinical trial site to participate. The travel advisories and risk of infection related to COVID-19 have presented increased risks to patients traveling to our clinical trial site for dosing. Due to the uncertainty surrounding COVID-19, we cannot estimate when the next cohort of patients will begin the clinical trial. While top line results from the SAD and the planned multiple ascending dose, or MAD, clinical trials were originally expected by the end of 2020, the delay in the clinical trial timeline caused by the ongoing impact of COVID-19 has resulted in top line results being expected in first half of 2021.

We intend to work closely with regulatory authorities in the design of our clinical program for CTI-1601. Regulatory authorities in the United States and European Union have not issued definitive guidance as to how to measure and achieve efficacy in treatments for Friedreich’s Ataxia. As a result, the design and conduct of clinical trials of CTI-1601 may take longer or be more costly due to the novelty of development in Friedreich’s Ataxia. We may use new or novel endpoints or methodologies, which regulatory authorities may disagree with. Even if applicable regulatory authorities do not object to our proposed endpoints in an earlier stage clinical trial, such regulatory authorities may require evaluation of additional or different clinical endpoints in a later-stage clinical trial.

In addition to its Phase 1 clinical trials, we are also evaluating CTI-1601 in good laboratory practices, or GLP, toxicology studies, including 90-day GLP toxicity studies in rats and non-human primates, or NHPs. These studies are ongoing and the results of these studies are intended to be used to support the initiation of clinical trials that require the administration of CTI-1601 for longer than 28 days. During the course of the NHP study, we observed occasional transient rigidity immediately after dosing in certain NHPs. These NHPs required no intervention and the NHPs completed the in-life portion of the study. As this study is ongoing, we and our consultants are conducting additional analysis and awaiting certain results. The results from this study as well as the results from other toxicology studies could affect the timing and design of the development program for CTI-1601.

We are dependent on certain intellectual property licensed from Wake Forest University Health Sciences, or WFUHS, and Indiana University, or IU, for the development and, if approved, commercialization of CTI-1601.

The Merger, Reverse Stock Split and Name Change

On May 28, 2020, we completed our business combination with Chondrial Therapeutics, Inc., or Chondrial, in accordance with the terms of the Agreement and Plan of Merger, dated as of December 17, 2019, as amended, or the Merger Agreement, by and among us, Chondrial, a wholly-owned subsidiary of ours, or Merger Sub, and Chondrial Holdings, LLC, or Holdings, the sole stockholder of Chondrial, pursuant to which Merger Sub merged with and into Chondrial, with Chondrial surviving as a wholly-owned subsidiary of ours, or the Merger.

In connection with, and immediately prior to the completion of the Merger, we effected a reverse stock split of our common stock, at a ratio of 1-for-12, or the Reverse Stock Split. Under the terms of the Merger Agreement, we issued common stock to Holdings at an exchange ratio of 60,912.5005 shares of common stock, after taking into account the Reverse Stock Split, for each share of Chondrial's common stock outstanding immediately prior to the Merger. Holdings subsequently distributed the shares of our common stock it received in the Merger to its members. Immediately after the completion of the Merger, we changed our name from "Zafgen, Inc." to "Larimar Therapeutics, Inc.," Chondrial was determined to be the accounting acquirer, our historical financials will be those of Chondrial and the business conducted by us became the business conducted by Chondrial. Our global headquarters are located at Three Bala Plaza East, Suite 506, Bala Cynwyd, Pennsylvania 19004.

Pursuant to the Merger Agreement, we agreed to file, no later than 30 days after the closing of the Merger, a registration statement with the SEC covering the resale of the shares acquired by the members of Holdings, or the Members, in connection with the Merger, and to use commercially reasonable efforts to have the registration statement declared effective as soon as practicable after the filing. We also entered into a Registration Rights Agreement, or the Merger Registration Rights Agreement, with the Members pursuant to which we agreed to maintain the effectiveness of the registration statement for a period that will terminate upon the date on which all of the shares of our common stock covered by such registration statement may be sold without restriction or limitation pursuant to Rule 144 of the Securities Act of 1933, as amended, or the Securities Act, and without the requirement to be in compliance with Rule 144(c)(1) (or any successor thereto) promulgated under the Securities Act during any ninety (90) day period, or the Effectiveness Period. This prospectus is part of that registration statement.

The description of the Merger Agreement and the Merger Registration Rights Agreement are not complete and are qualified in their entirety by reference to the Merger Agreement, which has been filed as an exhibit to our Annual Report on Form 10-K, filed on March 5, 2020, and to the Merger Registration Rights Agreement, which has been filed as an exhibit to the registration statement of which this prospectus is a part. See "Where You Can Find More Information" and "Information Incorporated by Reference." The representations, warranties and covenants made by us in such agreements were made solely for the benefit of the parties to such agreements, including, in some cases, for the purpose of allocating risk among the parties thereto, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were made as of an earlier date. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Private Placement of Common Stock and Pre-Funded Warrants

On May 28, 2020, we entered into a Securities Purchase Agreement, or the Purchase Agreement, with certain investors listed therein, or the Investors, which provided for the sale and issuance in a private placement, promptly after the consummation of the Merger, of 6,105,359 shares of our common stock, and pre-funded warrants to purchase an aggregate of 628,403 shares of our common stock, or the Pre-Funded Warrants, at a per share purchase price of \$11.88 per share of common stock (which price is equal to the closing price of our common stock on May 28, 2020, after taking into account the Reverse Stock Split) and \$11.87 per Pre-Funded Warrant, or the Private Placement. The aggregate gross proceeds for the sale of the shares of common stock was \$80 million, and after deducting certain of our expenses, the net proceeds received by us in the Private Placement was \$75.5 million.

Concurrently with the execution of the Purchase Agreement, we entered into a Registration Rights Agreement, or the Private Placement Registration Rights Agreement, pursuant to which we agreed to file, no later than 30 days after the closing of the Private Placement, a registration statement with the SEC covering the resale of the shares sold to the Investors in the Private Placement, and to use commercially reasonable efforts to have the registration statement declared effective as soon as practicable after the filing. This prospectus is part of that registration statement.

Under the Private Placement Registration Rights Agreement, we also agreed to maintain the effectiveness of the registration statement until the earliest to occur of: (i) the second anniversary of the effective date of the Private Placement Registration Rights Agreement, or (ii) the Effectiveness Period.

The description of the Purchase Agreement and the Private Placement Registration Rights Agreement are not complete and are qualified in their entirety by reference to the Purchase Agreement and the Private Placement Registration Rights Agreement, each of which have been filed as an exhibit to our Current Report on Form 8-K filed on June 2, 2020. See “Where You Can Find More Information” and “Information Incorporated by Reference.” The representations, warranties and covenants made by us in such agreements were made solely for the benefit of the parties to such agreements, including, in some cases, for the purpose of allocating risk among the parties thereto, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were made as of an earlier date. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Description of Placement Agent Shares

MTS Health Partners served as placement agent to us in connection with the Private Placement. As partial compensation for these services, we issued MTS Health Partners 35,260 shares of our common stock. We have agreed to register such shares in connection with the registration statement of which this prospectus is a part.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risk factors set forth under “Risk Factors” in (i) our Annual Report on Form 10-K for the year ended December 31, 2019, (ii) our Quarterly Report on Form 10-Q for the three months ended March 31, 2020 and (iii) our current report on Form 8-K/A filed on June 26, 2020, each of which is incorporated by reference in this prospectus, together with all other information contained or incorporated by reference in this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in any applicable prospectus supplement, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus is a part. The risks and uncertainties we describe in the documents incorporated by reference herein are not the only ones we face. Additional risks and uncertainties not presently known to us could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment.

Risks Related to this Offering

The number of shares being registered for sale is significant in relation to the number of outstanding shares of our Common Stock.

We have filed a registration statement of which this prospectus is a part to register the shares offered hereunder for sale into the public market by the selling stockholders. Upon registration of the shares of common stock offered hereunder, 6,769,022 shares of the common stock registered hereunder may be resold in the public market immediately without restriction. The remaining 6,091,250 shares of the common stock registered hereunder are currently restricted as a result of lock-up agreements but will be freely tradeable 180 days after May 28, 2020, the closing date of the Merger. These shares represent a large number of shares of our common stock, and if sold in the market all at once or at about the same time, could depress the market price of our common stock during the period the registration statement remains effective and could also affect our ability to raise equity capital.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference into this prospectus may contain forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act, about us and our subsidiaries. These forward-looking statements are intended to be covered by the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995. Forward-looking statements are not statements of historical fact, and can be identified by the use of forward-looking terminology such as “believes,” “expects,” “may,” “will,” “could,” “should,” “projects,” “plans,” “goal,” “targets,” “potential,” “estimates,” “pro forma,” “seeks,” “intends” or “anticipates” or the negative thereof or comparable terminology. Forward-looking statements include, but are not limited to, statements concerning:

- our estimates regarding future results of operations, financial position, research and development costs, capital requirements and our needs for additional financing;
- how long we can continue to fund our operations with our existing cash and cash equivalents;
- our ability to realize any value from CTI-1601 and any other product candidate we may develop in the future and preclinical programs being developed and anticipated to be developed in light of inherent risks and difficulties involved in successfully bringing product candidates to market and the risk that products will not achieve broad market acceptance;
- delays in our anticipated clinical timelines and milestones for CTI-1601 associated with COVID-19;
- uncertainties in obtaining successful clinical results for CTI-1601 or any other product candidate that we may develop in the future and unexpected costs that may result therefrom;
- our ability to comply with regulatory schemes applicable to our business and other regulatory developments in the United States and foreign countries;
- the uncertainties associated with the clinical development and regulatory approval for CTI-1601 or any other product candidate that we may develop in the future, including potential delays in the commencement, enrollment and completion of clinical trials;
- the difficulties and expenses associated with obtaining and maintaining regulatory approval for CTI-1601 or any other product candidate we may develop in the future, and the indication and labeling under any such approval;
- the size and growth of the potential markets for CTI-1601 or any other product candidate that we may develop in the future, the rate and degree of market acceptance of CTI-1601 or any other product candidate that we may develop in the future and our ability to serve those markets;
- the success of competing therapies and products that are or become available;
- our ability to obtain and maintain patent protection and defend our intellectual property rights against third-parties;
- the performance of third-parties upon which we depend, including third-party contract research organizations, and third-party suppliers, manufacturers, group purchasing organizations, distributors and logistics providers;
- our ability to maintain our relationships, profitability and contracts with our key commercial partners;
- our ability to recruit or retain key scientific, technical, commercial, and management personnel or to retain our executive officers;

Table of Contents

- our ability to comply with stringent U.S. and foreign government regulation in the manufacture of pharmaceutical products, including good manufacturing practice compliance and other relevant regulatory authorities;
- our ability to maintain proper functionality and security of our internal computer and information systems and prevent or avoid cyber-attacks, malicious intrusion, breakdown, destruction, loss of data privacy or other significant disruption; and
- the other risks, uncertainties and factors discussed under the heading “Risk Factors” in our most recent Proxy Statement on Form DEFM 14-A, as revised and supplemented by those risks described from time to time in other reports which we file with the SEC.

You should read this prospectus and the documents incorporated by reference completely and with the understanding that our actual future results may be materially different from what we currently expect. Our business and operations are and will be subject to a variety of risks, uncertainties and other factors. Consequently, actual results and experience may materially differ from those contained in any forward-looking statements. Such risks, uncertainties and other factors that could cause actual results and experience to differ from those projected include, but are not limited to, the risk factors discussed under the heading “Risk Factors” contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

You should assume that the information appearing in this prospectus, any accompanying prospectus supplement or related free writing prospectus and any document incorporated herein by reference is accurate as of its date only. Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Unless legally required, we do not undertake any obligation to release publicly any revisions to such forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of our common stock by the selling stockholders named in this prospectus. All proceeds from the resale of the shares of our common stock offered by this prospectus will belong to the selling stockholders identified in this prospectus under “Selling Stockholders.”

SELLING STOCKHOLDERS

This prospectus relates to the sale or other disposition of up to 12,860,272 shares of our common stock by the selling stockholders named below, and their donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, collectively, the selling stockholders. These shares consist of (i) 6,091,250 shares issued to certain of the selling stockholders pursuant to the Merger Agreement; (ii) 6,105,359 shares that were issued to certain of the selling stockholders in the Private Placement; (iii) 628,403 shares that are issuable upon exercise of the Pre-Funded Warrants; and (iv) 35,260 shares that were issued as compensation to a placement agent for services rendered to Larimar in connection with the Private Placement. See “Prospectus Summary–The Merger, Reverse Stock Split and Name Change,” “Prospectus Summary–Private Placement of Common Stock and Pre-Funded Warrants” and “Prospectus Summary–Description of Placement Agent Compensation.”

The table below sets forth information as of the date of this prospectus, to our knowledge, the selling stockholders and other information regarding the beneficial ownership (as determined under Section 13(d) of the Exchange Act and the rules and regulations thereunder) of the shares of common stock held by the selling stockholders. The second column lists the number of shares of common stock beneficially owned by the selling stockholders, as of June 26, 2020. The third column lists the maximum number of shares of common stock that may be sold or otherwise disposed of by the selling stockholders pursuant to the registration statement of which this prospectus forms a part. The selling stockholders may sell or otherwise dispose of some, all or none of their shares. Pursuant to Rules 13d-3 and 13d-5 of the Exchange Act, beneficial ownership includes any shares of our common stock as to which a stockholder has sole or shared voting power or investment power, and also any shares of our common stock which the stockholder has the right to acquire within 60 days of June 26, 2020. The percent of beneficial ownership for the selling stockholders is based on 15,356,206 shares of our common stock outstanding as of June 26, 2020 (which does not include the 628,403 shares of common stock issuable upon exercise of the Pre-Funded Warrants). Except as described below, to our knowledge, none of the selling stockholders have been an officer or director of ours or of our affiliates within the past three years or had any material relationship with us or our affiliates within the past three years. Our knowledge is based on information provided by the selling stockholders in investor questionnaires in connection with the Merger and Private Placement, as well as information obtained from relevant Schedule 13D and 13G filings.

The shares of common stock being covered hereby may be sold or otherwise disposed of from time to time during the period the registration statement of which this prospectus is a part remains effective, by or for the account of the selling stockholders. After the date of effectiveness, the selling stockholders may have sold or transferred, in transactions covered by this prospectus or in transactions exempt from the registration requirements of the Securities Act, some or all of their common stock.

Information about the selling stockholders may change over time. Any changed information will be set forth in an amendment to the registration statement or supplement to this prospectus, to the extent required by law.

[Table of Contents](#)

Name of Selling Stockholder	Number of Shares of Common Stock Owned Prior to Offering		Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus	Number of Shares of Common Stock Owned After Offering (1)	
	Number	Percent		Number	Percent
Deerfield Private Design Fund IV	1,714,852	11.2%(2)	1,714,852	0	0%
Deerfield Healthcare Innovation Fund, L.P.	1,714,850	11.2%(3)	1,714,850	0	0%
Deerfield Private Design Fund III, L.P.	1,714,837	11.2%(4)	1,714,837	0	0%
FA Life Sciences Inc.	159,433	1%(5)	159,433	0	0%
Carole Ben-Maimon	120,215	*(6)	25,083	95,132	*
Steven Plump	119,832	*	118,999	833	*
Mark Payne	99,270	*(7)	99,270	0	0%
Thomas Hamilton	133,420	*(8)	133,420	0	0%
Wake Forest University Health Sciences	11,263	*	11,263	0	0%
Matt Neff	25,248	*	24,373	875	*
Wake Forest Technology Development Program	13,013	*	13,013	0	0%
Indiana University Research and Technology Corporation	2,809	*	2,809	0	0%
Cowen Healthcare Investments II LP	797,558	5.2%(9)	797,558	0	0%
Cowen Healthcare Investments III LP	1,242,520	8.1%(10)	1,242,520	0	0%
CHI EF II LP	59,676	*(11)	59,676	0	0%
CHI EF III LP	43,797	*(12)	43,797	0	0%
RA Capital Healthcare Fund, L.P.	1,515,151	9.9%(13)	1,515,151	0	0%
Logos Global Master Fund LP	252,525	1.6%(14)	252,525	0	0%
Acuta Capital Fund, LP	656,942	4.3%(15)	579,545	77,397	*
Acuta Opportunity Fund, LP	154,382	1.0%(16)	135,942	18,440	*
Soleus Capital Master Fund, L.P.	243,836	1.6%(17)	151,515	92,321	*
DAFNA Lifescience Select LP	31,565	*(18)	31,565	0	0%
DAFNA Lifescience LP	94,696	*(18)	94,696	0	0%
Altium Growth Fund, LP	252,525	1.6%(19)	252,525	0	0%
OrbiMed Genesis Master Fund, L.P.	201,637	1.3%(20)	109,427	92,210	*
OrbiMed Partners Master Fund Limited	732,323	4.8%(21)	732,323	0	0%
Sio Partners Master Fund, LP	62,516	*(22)	25,925	36,591	*
Compass MAV LLC	64,676	*(22)	25,757	38,919	*
Compass Offshore MAV Limited	41,388	*(22)	16,498	24,890	*
Sio Partners LP	98,592	*(22)	41,245	57,347	*
Reza Keshavarz	4,208	*	4,208	0	0%
Serrado Opportunity Fund LLC	16,835	*(23)	16,835	0	0%
Vivo Opportunity Fund, L.P.	653,779	4.3%(24)	653,779	0	0%
Vivo Capital Fund IX, L.P.	145,883	1.0%(25)	145,883	0	0%
Janus Henderson Biotech Innovation Master Fund Limited	154,608	1.0%(26)	154,608	0	0%
Janus Henderson Horizon Fund – Biotechnology Fund Care of BNP Paribas RCC	9,299	*(27)	9,299	0	0%
MTS Health Partners	35,260	*	35,260	0	0%

* Less than 1%

Table of Contents

- (1) Assumes the sale of all shares offered pursuant to this prospectus.
- (2) Deerfield Mgmt IV, L.P. is the general partner of Deerfield Private Design Fund IV, L.P. Deerfield Management Company, L.P. is the investment manager of Deerfield Private Design Fund IV, L.P. Mr. James E. Flynn is the sole member of the general partner of each of Deerfield Mgmt IV, L.P. and Deerfield Management Company, L.P. Deerfield Mgmt IV, L.P., Deerfield Management Company, L.P. and Mr. James E. Flynn may be deemed to beneficially own the securities held by Deerfield Private Design Fund IV, L.P. Jonathan Leff, a partner of Deerfield Management Company, L.P., who served on the Chondrial board of directors since December 2016, was appointed to serve on the Company's board of directors upon consummation of the Merger and continues to serve in such capacity. Bryan Sendrowski and William Slattery, also partners of Deerfield Management Company, L.P., served on the Chondrial board of directors until the consummation of the Merger. Prior to the Merger, Chondrial was a wholly-owned subsidiary of Holdings. Deerfield Private Design Fund III, L.P., Deerfield Private Design Fund IV, L.P. and Deerfield Healthcare Innovations Fund, L.P. collectively own in excess of 50% of the Series A Preferred Units, Bridge Units and Series B Bridge Units of Holdings. Messrs. Leff, Sendrowski and Slattery serve on the board of managers of Holdings. Prior to the consummation of the Merger, employees of Deerfield Management Company, L.P. provided certain operational support services to, and at time served as officers of, Chondrial and Holdings. The address of Deerfield Private Design Fund IV, L.P. is c/o Deerfield Management Company, L.P., 780 Third Avenue, 37th Floor, New York, NY 10017.
- (3) Deerfield Mgmt HIF, L.P. is the general partner of Deerfield Healthcare Innovations Fund, L.P. Deerfield Management Company, L.P. is the investment manager of Deerfield Healthcare Innovations Fund, L.P. Mr. James E. Flynn is the sole member of the general partner of each of Deerfield Mgmt HIF, L.P. and Deerfield Management Company, L.P. Deerfield Mgmt HIF, L.P., Deerfield Management Company, L.P. and Mr. James E. Flynn may be deemed to beneficially own the securities held by Deerfield Healthcare Innovations Fund, L.P. Jonathan Leff, a partner of Deerfield Management Company, L.P., who served on the Chondrial board of directors since December 2016, was appointed to serve on the Company's board of directors upon consummation of the Merger and continues to serve in such capacity. Bryan Sendrowski and William Slattery, also partners of Deerfield Management Company, L.P., served on the Chondrial board of directors until the consummation of the Merger. Prior to the Merger, Chondrial was a wholly-owned subsidiary of Holdings. Deerfield Private Design Fund III, L.P., Deerfield Private Design Fund IV, L.P. and Deerfield Healthcare Innovations Fund, L.P. collectively own in excess of 50% of the Series A Preferred Units, Bridge Units and Series B Bridge Units of Holdings. Messrs. Leff, Sendrowski and Slattery serve on the board of managers of Holdings. Prior to the consummation of the Merger, employees of Deerfield Management Company, L.P. provided certain operational support services to, and at time served as officers of, Chondrial and Holdings. The address of Deerfield Healthcare Innovations Fund, L.P. is c/o Deerfield Management Company, L.P., 780 Third Avenue, 37th Floor, New York, NY 10017.
- (4) Deerfield Mgmt III, L.P. is the general partner of Deerfield Private Design Fund III, L.P. Deerfield Management Company, L.P. is the investment manager of Deerfield Private Design Fund III, L.P. Mr. James E. Flynn is the sole member of the general partner of each of Deerfield Mgmt III, L.P. and Deerfield Management Company, L.P. Deerfield Mgmt III, L.P., Deerfield Management Company, L.P. and Mr. James E. Flynn may be deemed to beneficially own the securities held by Deerfield Private Design Fund III, L.P. Jonathan Leff, a partner of Deerfield Management Company, L.P., who served on the Chondrial board of directors since December 2016, was appointed to serve on the Company's board of directors upon consummation of the Merger and continues to serve in such capacity. Bryan Sendrowski and William Slattery, also partners of Deerfield Management Company, L.P., served on the Chondrial board of directors until the consummation of the Merger. Prior to the Merger, Chondrial was a wholly-owned subsidiary of Holdings. Deerfield Private Design Fund III, L.P., Deerfield Private Design Fund IV, L.P. and Deerfield Healthcare Innovations Fund, L.P. collectively own in excess of 50% of the Series A Preferred Units, Bridge Units and Series B Bridge Units of Holdings. Messrs. Leff, Sendrowski and Slattery serve on the board of managers of Holdings. Prior to the consummation of the Merger, employees of Deerfield Management Company, L.P. provided certain operational support services to, and at time served as officers of, Chondrial and Holdings. The address of Deerfield Private Design Fund III, L.P. is c/o Deerfield Management Company, L.P., 780 Third Avenue, 37th Floor, New York, NY 10017.

Table of Contents

- (5) The shares directly held by FA Life Sciences Inc. are indirectly beneficially owned by Thomas Hamilton, a member of our Board of Directors and the board of managers of Holdings, its managing member. Tom Hamilton disclaims beneficial ownership of the shares held by Friedrich's Ataxia Life Sciences except to the extent of his pecuniary interest therein. The business address for Friedrich's Ataxia Life Sciences is 211 Stuyvesant Ave., Rye, NY 10580.
- (6) Includes 95,132 shares of common stock issuable upon exercise of an equal number of options that are currently exercisable or will be exercisable within 60 days of June 26, 2020. Carole Ben-Maimon is our President and Chief Executive Officer and a member of our Board of Directors, and serves as President and Chief Executive Officer and as a member of the board of managers of Holdings. Prior to the Merger, Dr. Ben-Maimon was the President and Chief Executive Officer of Chondrial.
- (7) Mark Payne was a co-founder of Chondrial and previously served as its Chief Scientific Officer. Mr. Payne is also a member of the board of managers of Holdings.
- (8) Mr. Hamilton is a member of our Board of Directors and serves as a member of the board of managers of Holdings.
- (9) Consists of (i) 132,579 shares of common stock distributed in connection with the Merger, (ii) 430,812 shares of common stock issued in the Private Placement, and (iii) 234,167 shares of common stock issuable upon exercise of a Pre-Funded Warrant that was issued in the Private Placement. CHI Advisors LLC is the investment manager of Cowen Healthcare Investments II LP and has voting and investment power with respect to the securities held by Cowen Healthcare Investments II LP. Under the terms of the Pre-Funded Warrant, Cowen Healthcare Investments II LP is prohibited from exercising such warrant if exercise would cause the number of shares then owned by Cowen Healthcare Investments II LP and its affiliates to exceed 9.99% of the total number of shares of the Company's common stock then outstanding, or the Ownership Cap. Accordingly, Cowen Healthcare Investments II LP and CHI Advisors LLC disclaim beneficial ownership of the shares of common stock issuable upon exercise of the Pre-Funded Warrant to the extent that upon such exercise the number of shares beneficially owned by Cowen Healthcare Investments II LP and its affiliates, in the aggregate, would exceed the Ownership Cap. The business address for Cowen Healthcare Investments II LP is c/o CHI Advisors LLC, 599 Lexington Avenue, 19th Floor, New York, New York 10022.
- (10) Consists of (i) 200,989 shares of common stock distributed in connection with the Merger, (ii) 674,763 shares of common stock issued in the Private Placement, and (iii) 366,768 shares of common stock issuable upon exercise of a Pre-Funded Warrant that was issued in the Private Placement. CHI Advisors LLC is the investment manager of Cowen Healthcare Investments III LP and has voting and investment power with respect to the securities held by Cowen Healthcare Investments III LP. Under the terms of the Pre-Funded Warrant, Cowen Healthcare Investments III LP is prohibited from exercising such warrant if exercise would cause the number of shares then owned by Cowen Healthcare Investments III LP and its affiliates to exceed the Ownership Cap. Accordingly, Cowen Healthcare Investments III LP and CHI Advisors LLC disclaim beneficial ownership of the shares of common stock issuable upon exercise of the Pre-Funded Warrant to the extent that upon such exercise the number of shares beneficially owned by Cowen Healthcare Investments III LP and its affiliates, in the aggregate, would exceed the Ownership Cap. The business address for Cowen Healthcare Investments III LP is c/o CHI Advisors LLC, 599 Lexington Avenue, 19th Floor, New York, New York 10022.
- (11) Consists of (i) 10,850 shares of common stock distributed in connection with the Merger, (ii) 31,632 shares of common stock issued in the Private Placement, and (iii) 17,194 shares of common stock issuable upon exercise of a Pre-Funded Warrant that was issued in the Private Placement. CHI Advisors LLC is the investment manager of CHI EF II LP and has voting and investment power with respect to the securities held by CHI EF II LP. Under the terms of the Pre-Funded Warrant, CHI EF II LP is prohibited from exercising such warrant if exercise would cause the number of shares then owned by CHI EF II LP and its affiliates to exceed the Ownership Cap. Accordingly, CHI EF II LP and CHI Advisors LLC disclaim beneficial ownership of the shares of common stock issuable upon exercise of the Pre-Funded Warrant to the extent that upon such exercise the number of shares beneficially owned by CHI EF II LP and its affiliates, in the aggregate, would exceed the Ownership Cap. The business address for CHI EF II LP is c/o CHI Advisors LLC, 599 Lexington Avenue, 19th Floor, New York, New York 10022.
- (12) Consists of (i) 14,622 shares of common stock distributed in connection with the Merger, (ii) 18,901 shares of common stock issued in the Private Placement, and (iii) 10,274 shares of common stock issuable upon exercise of a Pre-Funded Warrant that was issued in the Private Placement. CHI Advisors LLC is the investment manager of CHI EF III LP and has voting and investment power with respect to the securities held by CHI EF III LP. Under the terms of the Pre-Funded Warrant, CHI EF III LP is prohibited from exercising such warrant if exercise would cause

Table of Contents

the number of shares then owned by CHI EF III LP and its affiliates to exceed the Ownership Cap. Accordingly, CHI EF III LP and CHI Advisors LLC disclaim beneficial ownership of the shares of common stock issuable upon exercise of the Pre-Funded Warrant to the extent that upon such exercise the number of shares beneficially owned by CHI EF III LP and its affiliates, in the aggregate, would exceed the Ownership Cap. The business address for CHI EF III LP is c/o CHI Advisors LLC, 599 Lexington Avenue, 19th Floor, New York, New York 10022.

- (13) RA Capital Management, L.P., or RA Capital, is the investment adviser of the RA Healthcare Fund, L.P., or RA Healthcare Fund. The general partner of RA Capital is RA Capital Management GP, LLC, or RA Capital GP, of which Peter Kolchinsky, Ph.D. and Rajeev Shah are the managing members. RA Capital Healthcare Fund GP, LLC is the general partner of RA Healthcare Fund. RA Healthcare Fund has delegated to RA Capital voting and investment power over the shares held by RA Healthcare Fund. The business address for RA Healthcare Fund is c/o RA Capital Management, L.P., 200 Berkeley Street, 18th Floor, Boston, Massachusetts 02116.
- (14) Logos GP LLC is the general partner of Logos Global Master Fund LP. Logos Global Management, L.P. is the investment advisor of Logos Global Master Fund LP. The voting members of Logos GP LLC are Arsani William, Graham Walmsley, Edward Zhong and Yanni Souroutzidis, none of whom has individual voting or investment power with respect to these shares of common stock and each of whom disclaims beneficial ownership of such shares except to the extent of his or her pecuniary interests therein. The business address for Logos Global Master Fund LP is 1 Letterman Drive, Building D, Suite D3-700, San Francisco, California 94129.
- (15) Acuta Capital Partners, LLC is the general partner of Acuta Capital Fund, LP. Anupam Dalal is the Chief Investment Officer and Manfred Yu is the Manager of Acuta Capital Partners, LLC. Both Mr. Dalal and Mr. Yu have voting and investment authority over all of the shares held by Actual Capital Fund, LP. Each of Acuta Capital Partners, LLC, Mr. Dalal and Mr. Yu disclaims beneficial ownership of the shares of common stock held by Acuta Capital Fund, LP except to the extent of their pecuniary interest therein. The business address for Acuta Capital Fund, LP is c/o Acuta Capital Partners, LLC, 1301 Shoreway Road, Suite 350, Belmont, California 94002.
- (16) Acuta Capital Partners, LLC is the general partner of Acuta Opportunity Fund, LP. Anupam Dalal is the Chief Investment Officer and Manfred Yu is the Manager of Acuta Capital Partners, LLC. Both Mr. Dalal and Mr. Yu have voting and investment authority over all of the shares held by Actual Opportunity Fund, LP. Each of Acuta Capital Partners, LLC, Mr. Dalal and Mr. Yu disclaims beneficial ownership of the shares of common stock held by Acuta Opportunity Fund, LP except to the extent of their pecuniary interest therein. The business address for Acuta Opportunity Fund, LP is c/o Acuta Capital Partners, LLC, 1301 Shoreway Road, Suite 350, Belmont, California 94002.
- (17) The shares reflected as beneficially owned by Soleus Capital Master Fund, L.P., or Soleus Master Fund, in the table above. Mr. Guy Levy is the sole managing member of Soleus Capital Group, LLC, or Soleus Group, which is the sole managing member of Soleus Capital, LLC, together with Soleus Group, the Soleus Funds, which is the general partner of Soleus Master Fund. Accordingly, Mr. Levy and Soleus Funds may be deemed the beneficial owners of shares of common stock held by Soleus Master Fund. Each of Mr. Levy and Soleus Funds disclaims beneficial ownership of shares held by any of the entities named herein pursuant to Rule 13d-4 under the Exchange Act. The business address for Soleus Master Fund is 104 Field Point Road, 2nd Floor, Greenwich, Connecticut 06830.
- (18) DAFNA Capital Management, LLC is the sole general partner of DAFNA Lifescience LP and DAFNA Lifescience Select LP, collectively, the DAFNA Funds. Nathan Fischel is the Chief Executive Officer and Fariba Ghodsian is the Chief Investment Officer of DAFNA Capital Management LLC and they may be deemed to have shared voting and investment power with respect to the securities held by the DAFNA Funds. Each of Dr. Fischel and Dr. Fariba disclaim beneficial ownership of such shares, except to the extent of his or her pecuniary interest therein. The address for DAFNA Lifescience LP and DAFNA Lifescience Select LP is c/o DAFNA Capital Management, 10990 Wilshire Boulevard, Suite 1400, Los Angeles, California 90024.
- (19) Altium Capital Management, LP, the investment manager of Altium Growth Fund, LP, has voting and investment power over these securities. Jacob Gottlieb is the managing member of Altium Capital Growth GP, LLC, which is the general partner of Altium Growth Fund, LP. Each of Altium Growth Fund, LP and Jacob Gottlieb disclaims beneficial ownership over these securities. The business address for Altium Growth Fund, LP is 152 West 57th Street, Floor 20, New York, New York 10019.

Table of Contents

- (20) OrbiMed Genesis GP LLC, or Genesis GP, is the general partner of OrbiMed Genesis Master Fund, L.P. OrbiMed Advisors LLC, or OrbiMed Advisors, is the managing member of Genesis GP. By virtue of such relationships, Genesis GP and OrbiMed Advisors may be deemed to have voting and investment power over the securities held by OrbiMed Genesis Master Fund, L.P. and as a result, may be deemed to have beneficial ownership over such securities. OrbiMed Advisors exercises voting and investment power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein, each of whom disclaims beneficial ownership of the shares held by OrbiMed Genesis Master Fund, L.P. The business address for OrbiMed Genesis Master Fund, L.P. is c/o OrbiMed Advisors LLC, 601 Lexington Avenue, 54th Floor, New York, NY 10022.
- (21) OrbiMed Capital LLC, or OrbiMed Capital, is the investment advisor for OrbiMed Partners Master Fund Limited. OrbiMed Capital is a relying advisor of OrbiMed Advisors. OrbiMed Advisors and OrbiMed Capital exercise voting and investment power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein, each of whom disclaims beneficial ownership of the shares held by OrbiMed Partners Master Fund Limited. The business address for OrbiMed Partners Master Fund Limited is c/o OrbiMed Advisors LLC, 601 Lexington Avenue, 54th Floor, New York, NY 10022.
- (22) Sio Capital Management, LLC, or Sio Capital Management, is the investment manager of Sio Partners LP, Sio Partners Master Fund LP, Compass MAV LLC and Compass Offshore MAV Limited. Sio GP LLC, or Sio GP, is the general partner of Sio Partners LP and Sio Partners Master Fund LP. Michael Castor is the managing member of Sio Capital Management and Sio GP. Each of Sio Capital Management, Sio GP and Michael Castor disclaims beneficial ownership over the shares of common stock held by each of Sio Partners LP, Sio Partners Master Fund LP, Compass MAV LLC and Compass Offshore MAV Limited, respectively. The business address of Sio Partners LP, Sio Partners Master Fund LP, Compass MAV LLC and Compass Offshore MAV Limited is c/o Sio Capital Management, LLC, 600 Third Avenue, 2nd Floor, New York, New York 10016.
- (23) Serrado Capital LLC, or Serrado Capital, is the investment manager of Serrado Opportunity Fund LLC. Stewart J. Hen is the managing member of Serrado Capital. Serrado Capital and Mr. Hen exercise voting and investment power with respect to the securities held by Serrado Opportunity Fund LLC. Each of Serrado Capital and Mr. Hen disclaims beneficial ownership over the shares of common stock held by Serrado Opportunity Fund LLC except to the extent of its or his pecuniary interest therein. The business address of Serrado Opportunity Fund LLC is 25 North Moore Street, #15A, New York, New York 10013.
- (24) Vivo Opportunity, LLC is the general partner of Vivo Opportunity Fund, L.P. The voting members of Vivo Opportunity, LLC are Albert Cha, Gaurav Aggarwal, Shan Fu, Frank Kung and Michael Chang, none of whom has individual voting or investment power with respect to these shares of common stock and each of whom disclaims beneficial ownership of such shares except to the extent of his pecuniary interests therein. The business address for Vivo Opportunity Fund, L.P. is c/o Vivo Capital LLC, 192 Lytton Avenue, Palo Alto, California 94301.
- (25) Vivo Capital IX, LLC is the general partner of Vivo Capital Fund IX, L.P. The voting members of Vivo Capital IX, LLC are Frank Kung, Albert Cha, Edgar Engleman, Chen Yu and Shan Fu, none of whom has individual voting or investment power with respect to these shares of common stock and each of whom disclaims beneficial ownership of such shares except to the extent of his pecuniary interests therein. The business address for Vivo Capital Fund IX, L.P. is c/o Vivo Capital LLC, 192 Lytton Avenue, Palo Alto, California 94301.
- (26) Janus Capital Management LLC, or Janus Capital Management, is the investment adviser to Janus Henderson Biotech Innovation Master Fund Limited. Janus Capital Management may be deemed to have voting and dispositive power over the shares held by Janus Henderson Biotech Innovation Master Fund Limited. The business address of Janus Henderson Biotech Innovation Master Fund Limited is c/o Janus Capital Management LLC, 151 Detroit Street, Denver, Colorado 80206.
- (27) Janus Capital Management is the investment adviser to Janus Henderson Horizon Fund – Biotechnology Fund. Janus Capital Management may be deemed to have voting and dispositive power over the shares held by Janus Henderson Horizon Fund – Biotechnology Fund. The business address of Janus Henderson Horizon Fund – Biotechnology Fund Care of BNP Paribas RCC is 151 Detroit Street, Denver, Colorado 80206.

PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

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

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

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

Table of Contents

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the Pre-Funded Warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their Affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying any prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with such registration statement or (2) the date on which all of the shares may be sold by the selling stockholders without restriction (including any current public information requirement) pursuant to Rule 144 of the Securities Act.

DESCRIPTION OF CAPITAL STOCK

The following description of our common stock and preferred stock summarizes the material terms and provisions of our common stock and preferred stock. The following description of our capital stock does not purport to be complete and is subject to, and qualified in its entirety by, our ninth amended and restated certificate of incorporation, referred to in this section as the Charter, and our amended and restated by-laws, as may be amended, referred to in this section as the Bylaws, which are incorporated by reference to Exhibits 3.1 and 3.2, respectively, of our Annual Report on Form 10-K for the year ended December 31, 2019 as filed with the SEC on March 5, 2020 and by applicable law, and does not include changes resulting from the amendments to our Charter to effect a name change to Larimar Therapeutics, Inc. and to effect the Reverse Split (as defined below). The terms of our common stock and preferred stock may also be affected by Delaware law.

Common Stock

Authorized Capital Stock. Our authorized capital stock consists of (i) 115,000,000 shares of common stock, par value \$0.001 per share, of which 15,354,335 shares have been issued and are outstanding as of June 26, 2020, referred to as the capitalization date, and (ii) 5,000,000 shares of preferred stock, par value \$0.001 per share, of which no shares have been issued and are outstanding as of the capitalization date. We do not hold any shares of our capital stock in its treasury.

Voting Rights. Holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. The holders of our common stock do not have any cumulative voting rights.

Dividends. Holders of our common stock are entitled to receive ratably any dividends declared by our Board of Directors, or Board, out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock.

No Preemptive or Similar Rights. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions. In the event of a liquidation, dissolution or winding up of us, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock.

Transfer Agent and Registrar. The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

Listing. Our common stock is listed on The Nasdaq Global Market under the symbol “LRMR.” On June 25, 2020, the last reported sale price of our common stock on The Nasdaq Global Market was \$14.04 per share. As of June 26, 2020, we had approximately 55 stockholders of record.

Reverse Split

On May 28, 2020, we filed an amendment to our Charter in order to effect a 1-for-12 reverse stock split of our common stock, or the Reverse Split, effective for trading purposes on May 29, 2020. The number of authorized stock remained unchanged at 120,000,000 shares.

Preferred Stock

Our Board currently has the authority, without further action by our stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of preferred stock by us could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon a liquidation of us. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of us or other corporate action. No shares of preferred stock are outstanding, and we have no present plans to issue any shares of preferred stock.

Warrants

In connection with the Private Placement, we issued and sold pre-funded warrants to purchase 628,403 shares of our common stock, or the Pre-Funded Warrants, to certain investors, or the Investors. The Pre-Funded Warrants are exercisable immediately upon issuance at an exercise price of \$0.01 and will be exercisable indefinitely. The Investors may exercise the Pre-Funded Warrants on a cashless basis in the event that there is no effective registration statement covering the resale of the shares of our common stock underlying the Pre-Funded Warrants, or the Warrant Shares, on the date in which we are required to deliver the shares.

The Pre-Funded Warrants may not be exercised by the holder to the extent that the holder would beneficially own, after such exercise 9.99% of the shares of our common stock then outstanding (subject to the right of the holder to increase or decrease such beneficial ownership limitation upon notice to us, provided that such limitation cannot exceed 19.99%) and provided that any increase in the beneficial ownership limitation shall not be effective until 61 days after such notice is delivered.

Registration Rights

Shortly after the Merger we entered into a Registration Rights Agreement, or Merger Registration Rights Agreement, with the members of Chondrial Holdings, LLC pursuant to which we have agreed that promptly, but no later than 30 calendar days from the closing of the Merger, we will file a registration statement with the SEC covering the shares of common stock issued to Chondrial Holdings, LLC in exchange for all of the shares of common stock of Chondrial Therapeutics, Inc. and subsequently distributed to its members. We will use our commercially reasonable efforts to ensure that the such registration statement is declared effective as soon as practicable after the filing. In addition, the Merger Registration Rights Agreement also provides the members of Chondrial Holdings, LLC with demand and “piggy-back” registration rights, subject to certain minimum requirements and customary conditions.

In connection with the Private Placement, we entered into a Registration Rights Agreement, or the Private Placement Registration Rights Agreement, and collectively with the Merger Registration Rights Agreement, the Registration Rights Agreements, with our investors pursuant to which we have agreed that promptly, but no later than 30 calendar days from the final closing of the Private Placement, we will file a registration statement with the SEC covering (a) the shares of common stock issued in the Offering and (b) the shares of common stock underlying the Pre-Funded Warrants issued in the Private Placement. We will use our commercially reasonable efforts to ensure that such registration statement is declared effective as soon as practicable after the filing.

These registration rights granted under the Registration Rights Agreements are subject to certain conditions, including our right to delay or withdraw a registration statement under certain circumstances. The registration rights granted in the Registration Rights Agreements are also subject to customary indemnification and contribution provisions.

Provisions of Our Charter and Bylaws and Delaware Anti-Takeover Law

Certain provisions of the Delaware General Corporation Law, or DGCL, and of our Charter and Bylaws could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions are also designed in part to encourage anyone seeking to acquire control of us to first negotiate with our Board. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests. However, we believe that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

[Table of Contents](#)

Board Composition and Filling Vacancies. Our Charter provides for the division of our Board into three classes serving staggered three-year terms, with one class being elected each year. Our Charter also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of 75% or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our Board, however occurring, including a vacancy resulting from an increase in the size of our Board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum.

No Written Consent of Stockholders. Our Charter provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting.

Meetings of Stockholders. Our Charter and Bylaws provide that only a majority of the members of our Board then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our Bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements. Our Bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our Bylaws specify the requirements as to form and content of all stockholders' notices.

Amendment to Charter and Bylaws. As required by the DGCL, any amendment of our Charter must first be approved by a majority of our Board, and if required by law or our Charter, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, board composition, limitation of liability and the amendment of our Charter must be approved by not less than 75% of the outstanding shares entitled to vote on the amendment, and not less than 75% of the outstanding shares of each class entitled to vote thereon as a class. Our Bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the Bylaws; and may also be amended by the affirmative vote of at least 75% of the outstanding shares entitled to vote on the amendment, or, if our Board recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or

[Table of Contents](#)

- at or after the time the stockholder became interested, the business combination was approved by the board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation any conflicts or violations of each party's agreements as a result of the merger or the merger agreement;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

LEGAL MATTERS

The validity of the shares of common stock offered in this prospectus has been passed upon for us by Pepper Hamilton LLP.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K of Zafgen, Inc. for the year ended December 31, 2019 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical financial statements of Chondrial Therapeutics, Inc. included in Exhibit 99.3 of Larimar Therapeutics, Inc.'s Current Report on Form 8-K/A filed June 26, 2020 have been so incorporated in reliance on the report (which contains an explanatory paragraph describing conditions that raise substantial doubt about Chondrial Therapeutics, Inc.'s ability to continue as a going concern as described in Note 2 to the financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated herein by reference for a copy of such contract, agreement or other document.

We are currently subject to the reporting requirements of the Exchange Act, and in accordance therewith files periodic reports, proxy statements and other information with the SEC. Our SEC filings are available to you on the SEC's website at <http://www.sec.gov> and in the "Investor Relations" section of our website at www.larimartx.com. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC:

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2019 filed with the SEC on March 5, 2020;
- Our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2020, filed with the SEC on May 7, 2020;
- Our Proxy Statement on [Form DEFM 14-A](#), filed 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](#));
- Our Current Reports on Form 8-K and 8-K/A filed with the SEC on June 26, 2020, [June 2, 2020](#), [April 24, 2020](#), [March 9, 2020](#) and [January 13, 2020](#) (in each case other than any portions thereof deemed furnished and not filed); and

[Table of Contents](#)

- The description of our common stock contained in our registration statement on [Form 8-A](#) (File No. 001-36510) filed with the SEC on June 18, 2014, under the Exchange Act, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference any future filings (other than any filings or portions of such reports that are not deemed “filed” under the Exchange Act in accordance with the Exchange Act and applicable SEC rules, including current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will furnish without charge to you, upon written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents by writing or telephoning us at the following address or phone number below. You may also access this information on our website at www.larimartx.com by viewing the “Financials & Filings” subsection of the “Investors” menu. No additional information is deemed to be part of or incorporated by reference into this prospectus.

Larimar Therapeutics, Inc.
Attention: Corporate Secretary
Three Bala Plaza East, Suite 506
Bala Cynwyd, Pennsylvania, 19004
(484) 414-2700



12,860,272 Shares

Common Stock

Prospectus

, 2020

PART II**INFORMATION NOT REQUIRED IN THE PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution**

The following table sets forth an estimate of the fees and expenses payable by us in connection with the issuance and distribution of the shares of common stock being registered by this registration statement. None of the expenses listed below are to be borne by any of the selling stockholders named in the prospectus that forms a part of this registration statement. All the amounts shown are estimates, except for the Securities and Exchange Commission, or SEC, registration fee.

	Amount
SEC registration fee	\$ 22,185
Accounting fees and expenses	\$ 20,000
Legal fees and expenses	\$ 135,000
Printing and Miscellaneous	\$ 5,000
Total	\$182,185

Item 15. Indemnification of Directors and Officers

We are governed by the Delaware General Corporation Law, or DGCL. Section 145 of the DGCL provides that a corporation may indemnify any person, including an officer or director, who was or is, or is threatened to be made, a party to any threatened, pending or completed legal 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 or is an officer, director, 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), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such officer, director, employee or agent acted in good faith and in a manner such person reasonably believed to be in, or not opposed to, the corporation's best interest and, for criminal proceedings, had no reasonable cause to believe that such person's conduct was unlawful. A Delaware corporation may indemnify any person, including an officer or director, who was or is, or is threatened to be made, a party to any threatened, pending or contemplated action or suit by or in the right of such corporation, under the same conditions, except that such indemnification is limited to expenses (including attorneys' fees) actually and reasonably incurred by such person, and except that no indemnification is permitted without judicial approval if such person is adjudged to be liable to such corporation. Where an officer or director of a corporation is successful, on the merits or otherwise, in the defense of any action, suit or proceeding referred to above, or any claim, issue or matter therein, the corporation must indemnify that person against the expenses (including attorneys' fees) which such officer or director actually and reasonably incurred in connection therewith.

Our Ninth Amended and Restated Certificate of Incorporation, as amended, or the Charter, provides for the indemnification of directors to the fullest extent permissible under Delaware law. Accordingly, our directors will not be personally liable for monetary damages for breach of their fiduciary duty as directors, except for liabilities:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- for unlawful payments of dividends or unlawful stock repurchases or redemptions, as provided under Section 174 of the DGCL; or
- for any transaction from which the director derived an improper personal benefit.

Table of Contents

Our amended and restated bylaws, or the Bylaws, provide for the indemnification of officers, directors and third parties acting on our behalf if such persons act in good faith and in a manner reasonably believed to be in and not opposed to our 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.

We have entered into indemnification agreements with each of our directors and certain of our executive officers. These agreements provide that we will indemnify each of our directors and certain of our executive officers to the fullest extent permitted by law. We intend to enter into indemnification agreements with any new directors and executive officers in the future.

We also maintain a general liability insurance policy which covers certain liabilities of directors and officers of our Company arising out of claims based on acts or omissions in their capacities as directors or officers.

We believe that the limitation of liability provision in the Charter and the indemnification agreements facilitate our ability to continue to attract and retain qualified individuals to serve as directors and officers. The limitation of liability and indemnification provisions in the Charter and Bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Item 16. Exhibits

Exhibit	Description
2.1	<u>Agreement and Plan of Merger, dated as of December 17, 2019, by and among Zafgen, Inc., Chondrial Therapeutics, Inc., Chondrial Therapeutics Holdings, LLC, and Zordich Merger Sub, Inc. (incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K (File No. 001-36510) filed on December 18, 2019).</u>
3.1	<u>Ninth Amended and Restated Certificate of Incorporation of Larimar Therapeutics, Inc. (formerly known as Zafgen, Inc.) (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed on June 24, 2014).</u>
3.2	<u>Certificate of Amendment of Ninth Amended and Restated Certificate of Incorporation of Larimar Therapeutics, Inc. (formerly known as Zafgen, Inc.) related to the Reverse Stock Split, dated May 28, 2020 (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed on June 2, 2020).</u>
3.3	<u>Certificate of Amendment of Ninth Amended and Restated Certificate of Incorporation of Larimar Therapeutics, Inc. (formerly known as Zafgen, Inc.) related to the Name Change, dated May 28, 2020 (incorporated by reference to Exhibit 3.2 of the Company's Current Report on Form 8-K filed on June 2, 2020).</u>
3.4	<u>Amended and Restated Bylaws of Larimar Therapeutics, Inc. (formerly known as Zafgen, Inc.) (incorporated by reference to Exhibit 3.2 of the Company's Current Report on Form 8-K filed on June 24, 2014).</u>
4.1	<u>Form of Pre-Funded Warrant (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on June 2, 2020).</u>
5.1 *	<u>Opinion of Pepper Hamilton LLP</u>
10.1	<u>Securities Purchase Agreement, dated as of May 28, 2020, by and among Larimar Therapeutics, Inc. and the investors listed on the Schedule of Investors attached thereto (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on June 2, 2020).</u>

Table of Contents

- 10.2 [Registration Rights Agreement, dated as of June 1, 2020, by and among Larimar Therapeutics, Inc. and certain Investors \(incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed on June 2, 2020\).](#)
- 10.3 * [Registration Rights Agreement, dated as of June 8, 2020, by and among Larimar Therapeutics, Inc. and the investors set forth on the signature pages thereto](#)
- 23.1 * [Consent of Pepper Hamilton LLP \(included in Exhibit 5.1\)](#)
- 23.2 * [Consent of Independent Registered Public Accounting Firm PricewaterhouseCoopers LLP](#)
- 23.3 * [Consent of Independent Registered Public Accounting Firm PricewaterhouseCoopers LLP](#)
- 24.1 [Power of attorney \(included on the signature page hereto\)](#)

* Filed herewith

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

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

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in the 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 SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective 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 (a)(1)(i), (a)(1)(ii), and (a)(1)(iii) above 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 SEC by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

Table of Contents

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) 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.

(6) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, 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 of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Unincorporated Community of Bala Cynwyd, Commonwealth of Pennsylvania, on June 26, 2020.

LARIMAR THERAPEUTICS, INC.

By: /s/ Carole Ben-Maimon

Carole Ben-Maimon, M.D.

President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Larimar Therapeutics, Inc., hereby severally constitute and appoint Carole Ben-Maimon and Michael Celano, our true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution in her or him for her or him and in her or his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as she or he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or her or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/s/ Carole Ben-Maimon</u> Carole Ben-Maimon, M.D.	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, Ph.D	Director	June 26, 2020
<u>/s/ Thomas O. Daniel</u> Thomas O. Daniel, M.D.	Director	June 26, 2020
<u>/s/ Frank E. Thomas</u> Frank E. Thomas	Director	June 26, 2020
<u>/s/ Jonathan Leff</u> Jonathan Leff	Director	June 26, 2020
<u>/s/ Thomas E. Hamilton</u> Thomas E. Hamilton	Director	June 26, 2020



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: Securities Registered under Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Larimar Therapeutics, Inc., a Delaware corporation (the “**Company**”), in connection with the resale from time to time by the selling stockholders named in the Registration Statement on Form S-3 under the Securities Act of 1933, as amended (the “**Act**”), filed with the Securities and Exchange Commission (the “**Commission**”) on the date hereof (the “**Registration Statement**”) by the Company of the resale of an aggregate of 12,860,272 shares (the “**Shares**”) of common stock, par value \$0.001 per share (the “**Common Stock**”) of the Company, consisting of

- (i) 6,091,250 shares of Common Stock (the “**Merger Shares**”) that were privately issued pursuant to an Agreement and Plan of Merger, dated as of December 17, 2019, as amended by and among the Company, Zordich Merger Sub, Inc., a wholly-owned subsidiary of the Company, Chondrial Therapeutics, Inc. and Chondrial Therapeutics Holdings, LLC, in connection with the Company’s merger with Chondrial Therapeutics, Inc. (the “**Merger**”);
- (ii) 6,105,359 shares of Common Stock (the “**Private Placement Shares**”) that were issued in a private placement pursuant to a Securities Purchase Agreement, dated May 29, 2020 (the “**Private Placement**”), by and among the Company the investors listed therein;
- (iii) 628,403 shares of Common Stock that are issuable upon exercise of pre-funded warrants (the “**Pre-Funded Warrants**”) to purchase shares of Common Stock that were issued in connection with the Private Placement (the “**Warrant Shares**”); and
- (iv) 35,260 shares of Common Stock that were issued as partial compensation to MTS Health Partners, the Company’s placement agent for the Private Placement, for services rendered in connection with the Private Placement (the “**Financial Advisor Shares**”).

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

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This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or any related Prospectus, other than as expressly stated herein with respect to the resale of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. 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 pdfs). We are opining herein as to General Corporation Law of the State of Delaware, and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, the Shares have been duly authorized by all necessary corporate action of the Company, the Merger Shares, Private Placement Shares and Financial Advisor Shares are validly issued, fully paid and nonassessable and the Warrant Shares, when issued and paid for in accordance with the terms of the Pre-Funded Warrants, will be validly issued, fully paid and nonassessable.

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 Act. We consent to your filing this opinion as an exhibit to the Registration Statement and to the reference to our firm in the related Prospectus under the heading "Legal Matters." In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Pepper Hamilton LLP

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT (this “**Agreement**”), dated as of June 8, 2020 (the “**Effective Date**”), is made and entered into by and among Larimar Therapeutics, Inc., a Delaware corporation (f/k/a Zafgen, Inc.) (the “**Company**”), and each of the investors set forth on the signature pages hereto (each, an “**Investor**” collectively, the “**Investors**”).

WHEREAS, following the Effective Date, certain of the Investors will acquire shares of common stock (the “Merger Shares”) of the Company, par value \$0.01 per share (the “Common Stock”), in connection with the consummation of the transactions contemplated by that certain Agreement and Plan of Merger (the “Merger Agreement”), dated as of December 17, 2019, by and among the Company, Zordich Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of the Company (“Merger Sub”) and Chondrial Therapeutics, Inc. (“Chondrial”), pursuant to which Merger Sub merged with and into Chondrial, with Chondrial surviving as a wholly owned subsidiary of the Company (the “Merger”).

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound, hereby agree as follows:

1. CERTAIN DEFINITIONS. As used in this Agreement, the following capitalized terms used herein shall have the following meanings:

“**Block Trade**” means an offering and/or sale of Registrable Securities by any Investor on a block trade or underwritten basis (whether firm commitment or otherwise) without substantial marketing efforts prior to pricing, including, without limitation, a same day trade, overnight trade or similar transaction.

“**Business Day**” means any day other than Saturday, Sunday or other day on which commercial banks in the City of New York are authorized or required by law to remain closed.

“**Closing Date**” has the meaning ascribed to such term in the Merger Agreement.

“**Prospectus**” means (i) the prospectus included in any Registration Statement, as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by such Registration Statement and by all other amendments and supplements to the prospectus, including post-effective amendments and all material incorporated by reference in such prospectus, and (ii) any “free writing prospectus” as defined in Rule 405 under the 1933 Act.

“**Register**,” “**registered**” and “**registration**” refer to a registration made by preparing and filing a Registration Statement or similar document in compliance with the 1933 Act (as defined below), and the declaration or ordering of effectiveness of such Registration Statement or document.

“**Registrable Securities**” means (i) the Merger Shares and (ii) any other securities issued or issuable with respect to or in exchange for Merger Shares; provided, that, a security shall cease

to be a Registrable Security upon (A) sale pursuant to a Registration Statement or Rule 144 under the 1933 Act, or (B) such security becoming eligible for sale without restriction or limitation by such Investor (and any of its Affiliates whose shares must be aggregated with those of such Investor under Rule 144) pursuant to Rule 144 and without the requirement to be in compliance with Rule 144(c)(1) (or any successor thereto) promulgated under the 1933 Act.

“**Registration Statement**” means any registration statement filed by the Company under the 1933 Act and the rules and regulations promulgated thereunder that covers the resale of any of the Registrable Securities pursuant to the provisions of this Agreement, amendments and supplements to such Registration Statement, including post-effective amendments, and all exhibits to and all material incorporated by reference in such Registration Statement.

“**Required Investors**” means (i) the Investors holding a majority of the Registrable Securities outstanding from time to time and (ii) whether or not included in clause (i), any Investor that is (or is part of a group that collectively is) an “affiliate” (as such term is used under Rule 144 under the 1933 Act).

“**SEC**” means the U.S. Securities and Exchange Commission.

“**Selling Investor**” means any Investor electing to sell any of its Registrable Securities in a Registration.

“**Selling Investor Questionnaire**” means a questionnaire in the form attached as Exhibit B hereto, or such other form of questionnaire as may reasonably be adopted by the Company from time to time.

“**Trading Day**” means a day on which the Common Stock is listed or quoted and traded on the Nasdaq Global Market.

“**Underwriter**” means a securities dealer who purchases any Registrable Securities as principal in an underwritten offering and not as part of such dealer’s market-making activities.

2. REGISTRATION RIGHTS.

(a) Registration Statements.

(i) Promptly following the Effective Date but no later than thirty (30) days after the Closing Date (the “**Filing Deadline**”), the Company shall prepare and file with the SEC a Registration Statement covering the resale of all of the Registrable Securities for an offering to be made on a continuous basis pursuant to Rule 415 under the 1933 Act (“**Rule 415**”) or, if Rule 415 is not available for offers and sales of the Registrable Securities, by such other means of distribution of Registrable Securities as the Investors may reasonably specify (the “**Initial Registration Statement**”). The Initial Registration Statement shall be on Form S-3 (except if the Company is then ineligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on such other form available to register for resale the Registrable Securities as a secondary offering) subject to the provisions of Section 2(a)(ii) and shall contain (except if otherwise required pursuant to written comments received from the SEC upon review of such Registration Statement) a “Plan of Distribution” substantially in the form attached hereto as

Exhibit A (which may be modified to respond to comments, if any, provided by the SEC); provided, however, that no Investor shall be named as an Underwriter in such Registration Statement without the Investor's prior written consent. In the event that the Company is not eligible to register the Registrable Securities on Form S-3 and instead registers the Registrable Securities on another form of registration statement pursuant to the 1933 Act, the Company shall convert or replace such registration statement with a registration statement on Form S-3 promptly following confirmation that the Company becomes eligible to use Form S-3 to register the Registrable Securities.

(ii) Such Registration Statement also shall cover, to the extent allowable under the 1933 Act and the rules promulgated thereunder (including Rule 416), such indeterminate number of additional shares of Common Stock resulting from stock splits, stock combinations, stock dividends or similar transactions with respect to the Registrable Securities. Such Registration Statement (and each amendment or supplement thereto, and each request for acceleration of effectiveness thereof) shall be provided in accordance with Section 3(c) to the Investors prior to its filing or other submission.

(b) Expenses. The Company will pay all expenses associated with each Registration Statement, including filing and printing fees, the fees and expenses of the Company's counsel and accounting fees and expenses, costs associated with clearing the Registrable Securities for sale under applicable state securities laws and listing fees, and the reasonable fees and expenses of one (1) counsel to the Investors (not to exceed \$35,000), but excluding discounts, commissions, fees of underwriters, selling brokers, dealer managers or similar securities industry professionals with respect to the Registrable Securities being sold.

(c) Effectiveness.

(i) The Company shall use commercially reasonable efforts to have each Registration Statement declared effective as soon as practicable after the filing. The Company shall notify the Investors as promptly as practicable, and in any event, within twenty-four (24) hours, after the Registration Statement is declared effective and shall simultaneously or prior thereto file with the SEC pursuant to Rule 424(b) under the 1933 Act, and provide the Investors with copies of, any related Prospectus to be used in connection with the sale or other disposition of the securities covered thereby.

(ii) For not more than ten (10) consecutive days or for a total of not more than twenty (20) days in any twelve (12) month period, the Company may suspend the use of any Prospectus included in any Registration Statement contemplated by this Section 2 in the event that the Company determines in good faith that such suspension is necessary to (A) delay the disclosure of material non-public information concerning the Company, the disclosure of which at the time is not, in the good faith opinion of the Company, in the best interests of the Company or (B) amend or supplement the affected Registration Statement or the related Prospectus so that such Registration Statement or Prospectus shall not include any Misstatement (an "**Allowed Delay**"); provided, that the Company shall promptly (1) notify each Investor in writing of the commencement of an Allowed Delay, but shall not (without the prior written consent of an Investor) disclose to such Investor any material non-public information giving rise to an Allowed Delay, (2) advise the Investors in writing to cease all sales under such Registration Statement until

the end of the Allowed Delay (but not, for the avoidance of doubt, any sale pursuant to Rule 144 or other applicable exemption under the 1933 Act) and (3) use commercially reasonable efforts to terminate an Allowed Delay as promptly as practicable.

(d) Liquidated Damages. If: (i) the Registration Statement is not filed on or prior to the Filing Deadline, (ii) the Company fails to file with the SEC a request for acceleration of a Registration Statement in accordance with Rule 461 promulgated by the SEC pursuant to the 1933 Act, within five (5) Trading Days of the date that the Company is notified (orally or in writing, whichever is earlier) by the SEC that such Registration Statement will not be “reviewed” or will not be subject to further review, (iii) prior to the effective date of a Registration Statement, the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the SEC in respect of such Registration Statement within ten (10) calendar days after the receipt of comments by or notice from the SEC that such amendment is required in order for such Registration Statement to be declared effective, or (iv) the Company fails to maintain the effectiveness of the Registration Statement during the Effectiveness Period other than in connection with an Allowed Delay, or the Allowed Delay is exceeded (any such failure or breach being referred to as an “Event”, and for purpose of clause (i), the date on which such Event occurs, and for purpose of clause (ii) the date on which such five (5) Trading Day period is exceeded, and for purpose of clause (iii) the date which such ten (10) calendar day period is exceeded, and for purpose of clause (iv) the date on which the Allowed Delay is exceeded being referred to as the “Event Date”), then, in addition to any other rights and remedies the Investors may have hereunder or under applicable law or in equity, on each such Event Date and on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall pay to each Investor an amount in cash, as partial liquidated damages and not as a penalty, equal to the product of 1.0% multiplied by the aggregate value of such Investor’s Merger Shares as of the date hereof. The amounts payable pursuant to the foregoing sentence are referred to collectively as “**Liquidated Damages**”. The parties agree that (1) notwithstanding anything to the contrary herein, no Liquidated Damages shall be payable with respect to any period after the expiration of the Effectiveness Period and in no event shall the aggregate amount of Liquidated Damages payable to an Investor pursuant to this Section 2.(d) exceed, in the aggregate, five percent (5%) of the aggregate value of such Investor’s Merger Shares as of the date hereof and (2) in no event shall the Company be liable in any thirty (30)-day period for Liquidated Damages under this Agreement in excess of one percent (1.0)% of the aggregate value of the Merger Shares as of the date hereof. If the Company fails to pay any Liquidated Damages pursuant to this Section 2(d) in full within seven (7) calendar days after the date payable, the Company will pay interest thereon at a rate of one percent (1.0%) per annum (or such lesser maximum amount that is permitted to be paid by applicable Law) to the Investor, accruing daily from the date such Liquidated Damages are due until such amounts, plus all such interest thereon, are paid in full. The Liquidated Damages pursuant to the terms hereof shall apply on a daily pro rata basis for any portion of a month prior to the cure of an Event. The Effectiveness Deadline for a Registration Statement shall be extended without default and without the payment of Liquidated Damages hereunder in the event that the Company’s failure to obtain the effectiveness of the Registration Statement on a timely basis results from the failure of an Investor to timely provide the Company with information reasonably requested by the Company and necessary to complete the Registration Statement in accordance with the requirements of the 1933 Act.

(e) Rule 415; Cutback. If at any time the SEC takes the position that the offering of some or all of the Registrable Securities in a Registration Statement is not eligible to be made on a delayed or continuous basis under the provisions of Rule 415 under the 1933 Act or requires any Investor to be named as an Underwriter, the Company shall use commercially reasonable efforts to persuade the SEC that the offering contemplated by such Registration Statement is a valid secondary offering and not an offering “by or on behalf of the issuer” as defined in Rule 415 and that none of the Investors is an Underwriter. The Investors shall have the right to select one legal counsel to review and oversee any registration or matters pursuant to this Section 2(e), including participation in any meetings or discussions with the SEC regarding the SEC’s position and to comment on any written submission made to the SEC with respect thereto, which counsel shall be designated by the holders of a majority of the Registrable Securities. No such written submission with respect to this matter shall be made to the SEC to which the Investors’ counsel reasonably objects. In the event that, despite the Company’s commercially reasonable efforts and compliance with the terms of this Section 2(e), the SEC refuses to alter its position, the Company shall (i) remove from such Registration Statement such portion of the Registrable Securities (the “**Cut Back Shares**”) and/or (ii) agree to such restrictions and limitations on the registration and resale of the Registrable Securities as the SEC may require to assure the Company’s compliance with the requirements of Rule 415 (collectively, the “**SEC Restrictions**”); provided, however, that the Company shall not agree to name any Investor as an Underwriter in such Registration Statement without the prior written consent of such Investor. Any cut-back imposed on the Investors pursuant to this Section 2(e) shall be allocated among the Investors on a pro rata basis and shall be applied first to any of the Registrable Securities of such Investor as such Investor shall designate, unless the SEC Restrictions otherwise require or provide or the Investors otherwise agree. From and after the first date on which the Company is able to effect the registration of such Cut Back Shares (such date, the “**Restriction Termination Date**”), all of the provisions of this Section 2 (including the Company’s obligations with respect to the filing of a Registration Statement and its obligations to use commercially reasonable efforts to have such Registration Statement declared effective within the time periods set forth herein) shall again be applicable to such Cut Back Shares; provided, however, that (i) the Filing Deadline for such Registration Statement including such Cut Back Shares shall be ten (10) Business Days after the Restriction Termination Date, and (ii) the date by which the Company is required to obtain effectiveness with respect to such Cut Back Shares under Section 2(c) shall be the 30th day immediately after the Restriction Termination Date (or the 90th day if the SEC reviews such Registration Statement). Notwithstanding anything to the contrary in this Section 2, the Company shall not be liable for Liquidated Damages under this Agreement as to any Registrable Securities which are not permitted by the SEC to be included in a Registration Statement due solely to the SEC Restrictions. In such case, the Liquidated Damages shall be calculated to only apply to the percentage of Registrable Securities which are permitted in accordance with the SEC Restrictions to be included in such Registration Statement.

(f) Demand Registration.

(i) Request for Registration. At any time and from time to time when there is no valid Registration Statement in effect, the Required Investors (the “**Demanding Holders**”) may make a written demand for registration under the 1933 Act of all or part of their Registrable Securities (a “**Demand Registration**”). Any demand for a Demand Registration shall specify the number of Registrable Securities proposed to be sold and the intended method(s) of distribution thereof. The Company will within ten (10) days of the Company’s receipt of the Demand

Registration notify all holders of Registrable Securities of the demand, and each holder of Registrable Securities who wishes to include all or a portion of such holder's Registrable Securities in the Demand Registration (each, a "**Demand Requesting Holder**") shall so notify the Company within ten (10) days after the receipt by the holder of the notice from the Company. Upon any such request, the Demanding Holders and the Demand Requesting Holders shall be entitled to have their Registrable Securities included in the Demand Registration, subject to Section 2(f)(iv) and Section 2(e), to be effected by the Company as soon as reasonably practicable, but in no event later than sixty (60) days after receipt of such Demand Registration. The Company shall not be obligated to effect more than an aggregate of two (2) Demand Registrations under this Section 2(f).

(ii) Effective Registration. A Registration will not count as a Demand Registration until the Registration Statement filed with the Commission with respect to such Demand Registration has been declared effective and the Company has complied with all of its obligations under this Agreement with respect thereto; provided, however, that if, after such Registration Statement has been declared effective, the offering of Registrable Securities pursuant to a Demand Registration is interfered with by any stop order or injunction of the Commission or any other governmental agency or court, the Registration Statement with respect to such Demand Registration will be deemed not to have been declared effective, unless and until (a) such stop order or injunction is removed, rescinded or otherwise terminated, and (b) a majority-in-interest of the Demanding Holders who initiated such Demand Registration thereafter affirmatively elect to continue the offering and notify the Company thereof in writing, but in no event later than five (5) days of such election.

(iii) Underwritten Offering. If a majority-in-interest of the Demanding Holders who initiate a Demand Registration so elect and such holders so advise the Company as part of their written demand for a Demand Registration, the offering of such Registrable Securities pursuant to such Demand Registration shall be in the form of an underwritten offering (which, for the avoidance of doubt, may be an underwritten Block Trade). In such event, the right of any holder to include its Registrable Securities in such Registration shall be conditioned upon such holder's participation in such underwriting and the inclusion of such holder's Registrable Securities in the underwriting to the extent provided herein. All Demanding Holders proposing to distribute their securities through such underwriting shall enter into an underwriting agreement in reasonable and customary form with the Underwriter or Underwriters selected for such underwriting by a majority-in-interest of the holders initiating the Demand Registration.

(iv) Reduction of Offering. If the managing Underwriter or Underwriters for a Demand Registration that is to be an underwritten offering, in good faith, advises the Company, the Demanding Holders and the Demand Requesting Holders that the dollar amount or number of shares of Registrable Securities which the Demanding Holders and Demand Requesting Holders (if any) desire to sell, taken together with all other shares of Common Stock or other securities which the Company desires to sell and the shares of Common Stock, if any, as to which Registration has been requested pursuant to registration rights held by other stockholders of the Company who desire to sell, exceeds the maximum dollar amount or maximum number of shares that can be sold in such offering without adversely affecting the proposed offering price, the timing, the distribution method, or the probability of success of such offering (such maximum dollar amount or maximum number of shares, as applicable, the "**Maximum Number of Shares**"),

then the Company shall include in such Registration: (i) the Registrable Securities as to which Demand Registration has been requested by the Demanding Holders and Demand Requesting Holders (if any) on a pro rata basis that can be sold without exceeding the Maximum Number of Shares; (ii) to the extent that the Maximum Number of Shares has not been reached under the foregoing clause (i), the shares of Common Stock or other securities that the Company desires to sell that can be sold without exceeding the Maximum Number of Shares and (iii) to the extent that the Maximum Number of Shares have not been reached under the foregoing clauses (i) and (ii), the shares of Common Stock or other securities for the account of other persons that the Company is obligated to Register pursuant to written contractual arrangements with such persons and that can be sold without exceeding the Maximum Number of Shares.

(g) Piggy-Back Registration.

(i) Piggy-Back Rights. If at any time on or after the date hereof the Company proposes to file a Registration Statement under the 1933 Act with respect to an offering of equity securities, or securities or other obligations exercisable or exchangeable for, or convertible into, equity securities, by the Company for its own account or for stockholders of the Company for their account (or by the Company and by stockholders of the Company including, without limitation, pursuant to Section 2(f)), other than a Registration Statement (i) filed in connection with any employee stock option or other benefit plan, (ii) for an exchange offer or offering of securities solely to the Company's existing stockholders, (iii) for an offering solely of debt that is convertible into equity securities of the Company or (iv) for a dividend reinvestment plan, then the Company shall (x) give written notice of such proposed filing to the holders of Registrable Securities as soon as practicable but in no event less than ten (10) days before the anticipated filing date, which notice shall describe the amount and type of securities to be included in such offering, the intended method(s) of distribution, and the name of the proposed managing Underwriter or Underwriters, if any, of the offering, and (y) offer to the holders of Registrable Securities in such notice the opportunity to Register the sale of such number of shares of Registrable Securities as such holders may request in writing within five (5) days following receipt of such notice (a "**Piggy-Back Registration**"). The Company shall, in good faith, cause such Registrable Securities to be included in such Registration and shall use its commercially reasonable efforts to cause the managing Underwriter or Underwriters of a proposed underwritten offering to permit the Registrable Securities requested to be included in a Piggy-Back Registration on the same terms and conditions as any similar securities of the Company and to permit the sale or other disposition of such Registrable Securities in accordance with the intended method(s) of distribution thereof. All holders of Registrable Securities proposing to distribute their securities through a Piggy-Back Registration that involves an Underwriter or Underwriters shall enter into an underwriting agreement in reasonable and customary form with the Underwriter or Underwriters selected for such Piggy-Back Registration; provided, that no Investor including Registrable Securities in any underwritten offering shall be required to make any representations or warranties to the Company or the Underwriters, other than representations and warranties regarding such Investor or such Investor's ownership of its Registrable Securities to be sold in the offering or to undertake any indemnification obligations to the Company or the underwriters with respect thereto except to the extent expressly set forth in Section 5(b) hereof.

(ii) Reduction of Offering. If the managing Underwriter or Underwriters for a Piggy-Back Registration that is to be an underwritten offering advises the Company and the

Holders of Registrable Securities that the dollar amount or number of shares of Common Stock which the Company desires to sell, taken together with shares of Common Stock, if any, as to which Registration has been demanded pursuant to separate written contractual arrangements with persons or entities other than the Holders of Registrable Securities hereunder, the Registrable Securities as to which Registration has been requested under this Section 2(g), and the shares of Common Stock, if any, as to which Registration has been requested pursuant to the written contractual piggy-back registration rights of other stockholders of the Company, exceeds the Maximum Number of Shares, then the Company shall include in any such Registration:

(1) If the Registration is undertaken for the Company's account: (A) the shares of Common Stock or other securities that the Company desires to sell for its own account that can be sold without exceeding the Maximum Number of Shares; (B) to the extent that the Maximum Number of Shares has not been reached under the foregoing clause (A), the shares of Common Stock or other securities, if any, comprised of Registrable Securities, as to which Registration has been requested pursuant to the applicable written contractual Piggy-Back Registration rights of the Investors pursuant to Section 2(g)(i), on a pro rata basis, that can be sold without exceeding the Maximum Number of Shares; and (C) to the extent that the Maximum Number of Shares has not been reached under the foregoing clauses (A), (B) and (C), the shares of Common Stock or other securities for the account of other persons that the Company is obligated to Register pursuant to written contractual piggy-back registration rights with such persons and that can be sold without exceeding the Maximum Number of Shares; and

(2) If the Registration is a "demand" registration undertaken at the demand of persons or entities other than the holders of Registrable Securities, (A) the shares of Common Stock or other securities for the account of the demanding persons that can be sold without exceeding the Maximum Number of Shares; (B) to the extent that the Maximum Number of Shares has not been reached under the foregoing clause (A), the shares of Common Stock or other securities, if any, comprised of Registrable Securities, as to which Registration has been requested pursuant to the applicable written contractual Piggy-Back Registration rights of Holders under Section 2(g)(i), on a pro rata basis, that can be sold without exceeding the Maximum Number of Shares; (C) to the extent that the Maximum Number of Shares has not been reached under the foregoing clauses (A) and (B), the shares of Common Stock or other securities that the Company desires to sell for its own account that can be sold without exceeding the Maximum Number of Shares; and (D) to the extent that the Maximum Number of Shares has not been reached under the foregoing clauses (A), (B) and (C), the shares of Common Stock or other securities for the account of other persons that the Company is obligated to Register pursuant to written contractual arrangements with such persons, that can be sold without exceeding the Maximum Number of Shares.

(iii) Unlimited Piggy-Back Registration Rights. For purposes of clarity, any Registration effected pursuant to Section 2(g) hereof shall not be counted as a Registration pursuant to a Demand Registration effected under Section 2(f) hereof.

3. **COMPANY OBLIGATIONS.** The Company will use commercially reasonable efforts to effect the registration of the Registrable Securities in accordance with the terms hereof, and pursuant thereto the Company will, as expeditiously as possible:

(a) use commercially reasonable efforts to cause such Registration Statement to become effective and to remain continuously effective for a period that will terminate upon the date on which all Registrable Securities covered by such Registration Statement may be sold without restriction or limitation pursuant to Rule 144 and without the requirement to be in compliance with Rule 144(c)(1) (or any successor thereto) promulgated under the 1933 Act during any ninety (90) day period (the “**Effectiveness Period**”) and advise the Investors promptly in writing when the Effectiveness Period has expired;

(b) prepare and file with the SEC such amendments and post-effective amendments to such Registration Statement and the related Prospectus as may be necessary to keep such Registration Statement effective for the Effectiveness Period and to comply with the provisions of the 1933 Act and the 1934 Act with respect to the distribution of all of the Registrable Securities covered thereby;

(c) provide copies to and permit the Investors to review each Registration Statement and all amendments and supplements thereto not less than five (5) Trading Days prior to the filing of each Registration Statement and not less than one (1) Trading Day prior to the filing of any related Prospectus or any amendment or supplement thereto (except for Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and any similar or successor reports) and not file any document to which such Investor reasonably objects in good faith (it being acknowledged and agreed that if an Investor does not object to or comment on the aforementioned documents within such five (5) Trading Day or one (1) Trading Day period, as the case may be, then the Investor shall be deemed to have consented to the use of such documents), provided that, the Company is notified of such objection in writing within the five (5) Trading Day or one (1) Trading Day period described in this Section 3(c), as applicable;

(d) furnish to each Investor whose Registrable Securities are included in any Registration Statement (i) promptly after the same is prepared and filed with the SEC, if requested by the Investor, one (1) copy of any Registration Statement and any amendment thereto (provided, that the Company shall have no obligation to provide any document pursuant to this clause that is available on the SEC’s EDGAR system), each preliminary prospectus and Prospectus and each amendment or supplement thereto, and (ii) such number of copies of a Prospectus, including a preliminary prospectus, and all amendments and supplements thereto and such other documents as each Investor may reasonably request in order to facilitate the disposition of the Registrable Securities owned by such Investor that are covered by such Registration Statement;

(e) use commercially reasonable efforts to (i) prevent the issuance of any stop order or other suspension of effectiveness and (ii) if such order is issued, obtain the withdrawal of any such order at the earliest practical moment;

(f) prior to any public offering of Registrable Securities, use commercially reasonable efforts to register or qualify or cooperate with the Investors and their counsel in connection with the registration or qualification of such Registrable Securities for the offer and sale under the

securities or blue sky laws of such jurisdictions requested by the Investors and do any and all other commercially reasonable acts or things necessary or advisable to enable the distribution in such jurisdictions of the Registrable Securities covered by the Registration Statement; provided, however, that the Company shall not be required in connection therewith or as a condition thereto to (i) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(f), (ii) subject itself to general taxation in any jurisdiction where it would not otherwise be so subject but for this Section 3(f), or (iii) file a general consent to service of process in any such jurisdiction;

(g) use commercially reasonable efforts to cause all Registrable Securities covered by a Registration Statement to be listed on each securities exchange or other market on which similar securities issued by the Company are then listed or quoted;

(h) promptly notify the Investors, at any time prior to the end of the Effectiveness Period, upon discovery that, or upon the happening of any event as a result of which, the Prospectus includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing (a “**Misstatement**”), and promptly prepare, file with the SEC and furnish to such holder a supplement to or an amendment of such Prospectus as may be necessary so that such Prospectus shall not include such Misstatement; and

(i) otherwise use commercially reasonable efforts to comply with all applicable rules and regulations of the SEC under the 1933 Act and the 1934 Act, including, without limitation, Rule 172 under the 1933 Act, file any final Prospectus, including any supplement or amendment thereof, with the SEC pursuant to Rule 424 under the 1933 Act, promptly inform the Investors in writing if, at any time during the Effectiveness Period, the Company does not satisfy the conditions specified in Rule 172 and, as a result thereof, the Investors are required to deliver a Prospectus in connection with any disposition of Registrable Securities and take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder; and make available to its security holders, as soon as reasonably practicable, but not later than the Availability Date (as defined below), an earnings statement covering a period of at least twelve (12) months, beginning after the effective date of each Registration Statement, which earnings statement shall satisfy the provisions of Section 11(a) of the 1933 Act, including Rule 158 promulgated thereunder (for the purpose of this Section 3(i), “**Availability Date**” means the 45th day following the end of the fourth fiscal quarter that includes the effective date of such Registration Statement, except that, if such fourth fiscal quarter is the last quarter of the Company’s fiscal year, “**Availability Date**” means the 90th day after the end of such fourth fiscal quarter).

With a view to making available to the Investors the benefits of Rule 144 (or its successor rule) and any other rule or regulation of the SEC that may at any time permit the Investors to sell shares of Common Stock to the public without registration, the Company covenants and agrees to: (i) make and keep public information available, as those terms are understood and defined in Rule 144, until the earlier of (A) six (6) months after such date as all of the Registrable Securities may be sold without restriction by the holders thereof pursuant to Rule 144 or any other rule of similar effect or (B) such date as all of the Registrable Securities shall have been resold pursuant to a Registration Statement or Rule 144; (ii) file with the SEC in a timely manner all reports and other documents required of the Company under the 1934 Act; (iii) prior to the filing of any Registration

Statement or any amendment thereto (whether pre-effective or post-effective) and prior to the filing of any Prospectus, provide to each Investor copies of all pages thereof (if any) that reference such Investors, and (iv) furnish to each Investor upon request, as long as such Investor owns any Registrable Securities, (A) a written statement by the Company that it has complied with the reporting requirements of the 1934 Act, (B) a copy of the Company's most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q, and (C) such other information as may be reasonably requested in order to avail such Investor of any rule or regulation of the SEC that permits the selling of any such Registrable Securities without registration.

4. OBLIGATION OF THE INVESTORS.

(a) Each Investor agrees to furnish to the Company a completed Selling Investor Questionnaire within ten (10) Trading Days after the Effective Date. At least ten (10) Trading Days prior to the first anticipated filing date of a Registration Statement for any registration under this Agreement, the Company will notify each Investor of the information the Company reasonably requires from that Investor regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it, other than the information contained in the Selling Investor Questionnaire, if any. Each Investor shall furnish such information to the Company in writing promptly upon receiving such notification and, in any event, at least two (2) Trading Days prior to the applicable anticipated filing date (unless such Investor has notified the Company in writing of its election to exclude all of its Registrable Securities from such Registration Statement) and shall execute such documents in connection with such registration as the Company may reasonably request. Each Investor further agrees that it shall not be entitled to be named as a selling securityholder in the Registration Statement or use the Prospectus for offers and resales of Registrable Securities at any time, unless such Investor has returned to the Company a completed and signed Selling Investor Questionnaire and a response to any reasonable requests for further information as described in the previous sentence. If an Investor returns a Selling Investor Questionnaire or a request for further information, in either case, after its respective deadline, the Company shall use its reasonable best efforts to take such actions as are required to name such Investor as a selling security holder in the Registration Statement or any pre-effective or post-effective amendment thereto and to include (to the extent not theretofore included) in the Registration Statement the Registrable Securities identified in such late Selling Investor Questionnaire or request for further information. Each Investor acknowledges and agrees that the information in the Selling Investor Questionnaire or request for further information as described in this Section 4(a) will be used by the Company in the preparation of the Registration Statement and hereby consents to the inclusion of such information in the Registration Statement.

(b) [RESERVED].

(c) Each Investor, by its acceptance of the Registrable Securities, agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of a Registration Statement hereunder, unless such Investor has notified the Company in writing of its election to exclude all of its Registrable Securities from such Registration Statement.

(d) Each Investor agrees that, upon receipt of any notice from the Company of either (i) the commencement of an Allowed Delay pursuant to Section 2(c)(i) or (ii) the happening of an

event pursuant to Section 3(h) hereof, such Investor will immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement covering such Registrable Securities (but not, for the avoidance of doubt, pursuant to Rule 144 or other applicable exemption under the 1933 Act), until the Investor is advised by the Company that such dispositions may again be made pursuant to such Registration Statement.

5. INDEMNIFICATION.

(a) (a) Indemnification by the Company. The Company agrees to indemnify and hold harmless each Investor, and each of its officers, employees, Affiliates, directors, partners, members, managers, equityholders, attorneys, advisors and agents, and each person or entity, if any, who controls (within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act) each Investor (each, an “**Investor Indemnified Party**”), to the fullest extent permitted by applicable law, from and against any expenses, losses, judgments, actions, claims, proceedings (whether commenced or threatened), damages, liabilities or costs (including, without limitation, reasonable attorneys’ fees), whether joint or several (collectively, “**Losses**”), as incurred, arising out of or based upon any Misstatement contained in any Registration Statement under which the sale of such Registrable Securities was registered under the 1933 Act, any preliminary Prospectus, final Prospectus or summary Prospectus contained in such Registration Statement, any amendment or supplement to such Registration Statement, preliminary Prospectus, final Prospectus or summary Prospectus, or any free writing prospectus relating to such Registration Statement, or any violation by the Company of the 1933 Act or any rule or regulation promulgated thereunder applicable to the Company or any state securities (or Blue Sky) law, rule or regulation and relating to action or inaction required of the Company in connection with any such Registration; and the Company shall promptly reimburse the Investor Indemnified Party for any reasonable, customary and documented out-of-pocket legal and any other expenses incurred, as incurred, by such Investor Indemnified Party in connection with investigating and defending any such Losses, except, with respect to any Investor of Registrable Securities, to the extent such Investor is liable to indemnify the Company for such Losses pursuant to Section 5(b).

(b) Indemnification by Investors. Each Selling Investor will, in the event that any Registration is being effected under the 1933 Act pursuant to this Agreement of any Registrable Securities held by such Investor and the Company has required all Selling Investors to provide such an undertaking on the same terms, indemnify and hold harmless the Company, each of its directors and officers and each Underwriter (if any), and each other Selling Investor and each other person, if any, who controls another Selling Investor or such underwriter within the meaning of the 1933 Act, against any Losses, insofar as such Losses arise out of or are based upon any Misstatement contained in any Registration Statement under which the sale of such Registrable Securities was Registered under the 1933 Act, any preliminary Prospectus, final Prospectus or summary Prospectus contained in the Registration Statement, or any amendment or supplement thereto, if the Misstatement was made in reliance upon and in conformity with information furnished in writing to the Company by such Selling Investor expressly for use therein, and shall reimburse the Company, its directors and officers, and each other Selling Investor for any reasonable, customary and documented out-of-pocket legal or other expenses incurred by any of them in connection with investigation or defending any such Loss. Each Selling Investor’s indemnification obligations hereunder shall be several and not joint and shall be proportional to and limited to the amount of any net proceeds (after payment of any underwriting fees, discounts, commissions or taxes) actually received by such Selling Investor in connection with the sale of Registrable Securities under a Registration Statement from which such Losses arise.

(c) Conduct of Indemnification Proceedings. Promptly after receipt by any person of any notice of any Loss in respect of which indemnity may be sought pursuant to Section 5(a) or 5(b), such person (the “**Indemnified Party**”) shall, if a claim in respect thereof is to be made against any other person for indemnification hereunder, notify such other person (the “**Indemnifying Party**”) in writing of the Loss; provided, however, that the failure by the Indemnified Party to notify the Indemnifying Party shall not relieve the Indemnifying Party from any liability which the Indemnifying Party may have to such Indemnified Party hereunder, except and solely to the extent the Indemnifying Party is actually and materially prejudiced by such failure. If the Indemnified Party is seeking indemnification with respect to any claim or action brought against the Indemnified Party, then the Indemnifying Party shall be entitled to participate in such claim or action, and, to the extent that it wishes, jointly with all other Indemnifying Parties, to assume control of the defense thereof with counsel reasonably satisfactory to the Indemnified Party. After notice from the Indemnifying Party to the Indemnified Party of its election to assume control of the defense of such claim or action, the Indemnifying Party shall not be liable to the Indemnified Party for any legal or other expenses subsequently incurred by the Indemnified Party in connection with the defense thereof; provided, however, that in any action in which both the Indemnified Party and the Indemnifying Party are named as defendants, the Indemnified Party shall have the right to employ separate counsel (but no more than one such separate counsel, in addition to local counsel) to represent the Indemnified Party and its controlling persons who may be subject to liability arising out of any claim in respect of which indemnity may be sought by the Indemnified Party against the Indemnifying Party, with the reasonable and documented fees and expenses of such counsel to be paid by such Indemnifying Party if, based upon the opinion of counsel of such Indemnified Party, representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, consent to entry of judgment or effect any settlement of any claim or pending or threatened proceeding in respect of any Losses for which the Indemnified Party seeks indemnification hereunder if such settlement or judgment includes any non-monetary remedies binding on the Indemnified Party, requires an admission of fault or culpability on the part of the Indemnified Party or does not include an unconditional release from all liability of the Indemnified Party in respect of such Losses.

(d) Contribution. If the indemnification provided for in the foregoing Sections 5(a) and 5(b) is unavailable to any Indemnified Party in respect of any Loss referred to herein, then each such Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such Loss in such proportion as is appropriate to reflect the relative fault of the Indemnified Parties and the Indemnifying Parties in connection with the actions or omissions which resulted in such Loss. The relative fault of any Indemnified Party and any Indemnifying Party shall be determined by reference to, among other things, whether the Misstatement relates to information supplied by such Indemnified Party or such Indemnifying Party (in the case of an Investor, such Misstatement was made in reliance upon and in conformity with information furnished in writing to the Company by such Investor expressly for use therein) and the parties’ relative intent, knowledge, access to information and opportunity to correct or prevent such Misstatement. The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5(d) were determined by *pro rata*

allocation or by any other method of allocation which does not take account of the equitable considerations referred to in this Section 5(d). The amount paid or payable by an Indemnified Party as a result of any Loss referred to in this paragraph shall be deemed to include, subject to the limitations set forth above, any legal or other expenses incurred by such Indemnified Party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 5(d), no Investor shall be required to contribute any amount in excess of the dollar amount of the net proceeds (after payment of any underwriting fees, discounts, commissions or taxes) actually received by such Investor from the sale of Registrable Securities which gave rise to such contribution obligation, less the aggregate amount of any damages or other amounts such Investor has otherwise been required to pay (pursuant to Section 5(b) otherwise) as a result of the Misstatement. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

6. MISCELLANEOUS.

(a) Effective Date. This Agreement shall be effective as of the Effective Date.

(b) Amendments and Waivers. This Agreement may be amended only by a writing signed by the Company and the Required Investors. The Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company shall have obtained the written consent to such amendment, action or omission to act, of the Required Investors. Notwithstanding the foregoing, this Agreement may not be amended and the observance of any term of this Agreement may not be waived with respect to any Investor without the written consent of such Investor unless such amendment or waiver applies to all Investors in the same fashion.

(c) Notices. Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered upon receipt, when delivered personally or by a nationally recognized overnight delivery service or by e-mail, in each case properly addressed to the party to receive the same. The addresses for such communications shall be:

If to the Company:

Larimar Therapeutics, Inc.
Three Bala Plaza East, Suite 506,
Bala Cynwyd, PA 19004
Attention: Dr. Carole Ben-Maimon, M.D.
Email: cbenmaimon@larimartx.com

With copy (which shall not constitute notice) to:

Pepper Hamilton, LLP
3000 Two Logan Square
Philadelphia, PA 19103-2799
Attention: Rachael M. Bushey and Jennifer Porter
Email: bushey@pepperlaw.com; porterj@pepperlaw.com

If to an Investor, to it at the address set forth under such Investor's name on its signature page hereto, or, in the case of an Investor or any other party named above, at such other address or to the attention of such other Person as the recipient party has specified by written notice given to each other party five (5) days prior to the effectiveness of such change. Written confirmation of receipt (i) given by the recipient of such notice, consent, waiver or other communication; (ii) provided by affidavit of personal delivery by a delivery service selected by the Company; or (iii) provided by a nationally recognized overnight delivery service shall be rebuttable evidence of personal service, deposit with a nationally recognized overnight delivery service or electronic transmission.

(d) Assignments and Transfers by Investors. The provisions of this Agreement shall be binding upon and inure to the benefit of the Investors and their respective successors and assigns. An Investor may transfer or assign, in whole or from time to time in part, to one or more persons its rights hereunder in connection with the transfer of Registrable Securities by such Investor to such person, provided that such Investor complies with all laws applicable thereto, and provides written notice of assignment to the Company promptly after such assignment is effected, and such person agrees in writing to be bound by all of the provisions contained herein.

(e) Assignments and Transfers by the Company. This Agreement may not be assigned by the Company (whether by operation of law or otherwise) without the prior written consent of the Required Investors; provided, however, that in the event that the Company is a party to a merger, consolidation, share exchange or similar business combination transaction in which the Common Stock is converted into the equity securities of another Person, from and after the effective time of such transaction, such Person shall, by virtue of such transaction, be deemed to have assumed the obligations of the Company hereunder, the term "Company" shall be deemed to refer to such Person and the term "Registrable Securities" shall be deemed to include the securities received by the Investors in connection with such transaction unless such securities are otherwise freely tradable by the Investors after giving effect to such transaction.

(f) Benefits of the Agreement. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective permitted successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement (including Section 5 hereof).

(g) Counterparts; Execution. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A PDF or other reproduction of this Agreement may be executed by one or more parties hereto, and an executed copy of this Agreement may be delivered by one or more parties hereto by e-mail or other electronic transmission device pursuant to which the

signature of or on behalf of such party can be seen, and such execution and delivery shall be considered legal, valid, binding and effective for all purposes. The parties hereto hereby agree that no party shall raise the execution of a PDF or other reproduction of this Agreement, or the fact that any signature or document was transmitted or communicated by e-mail or other electronic transmission device, as a defense to the formation of this Agreement.

(h) Headings. The headings of this Agreement are for convenience of reference and shall not form part of, or affect the interpretation of, this Agreement.

(i) Severability. If any provision of this Agreement shall be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability shall not affect the validity or enforceability of the remainder of this Agreement in that jurisdiction or the validity or enforceability of any provision of this Agreement in any other jurisdiction. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s).

(j) Further Assurances. The parties shall execute and deliver all such further instruments and documents and take all such other actions as may reasonably be required to carry out the transactions contemplated hereby and to evidence the fulfillment of the agreements herein contained.

(k) No Strict Construction. The language used in this Agreement will be deemed to be the language chosen by the parties thereto express their mutual intent, and no rules of strict construction will be applied against any party.

(l) Entire Agreement. This Agreement is intended by the parties as a final expression of their agreement and intended to be a complete and exclusive statement of the agreement and understanding of the parties hereto in respect of the subject matter contained herein. This Agreement supersedes all prior agreements and understandings between the parties with respect to such subject matter.

(m) Governing Law; Consent to Jurisdiction; Waiver of Jury Trial. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by the internal laws of the State of Delaware, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware. Each party hereby irrevocably submits to the exclusive jurisdiction of the courts of the State of Delaware for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to such party at the address for such notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve

process in any manner permitted by law. EACH OF THE PARTIES HERETO IRREVOCABLY WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION HEREWITH OR ARISING OUT OF THIS AGREEMENT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have executed this Agreement or caused their duly authorized officers to execute this Agreement as of the date first above written.

COMPANY:

LARIMAR THERAPEUTICS, INC.

By: /s/ Carole S. Ben-Maimon

Name: Carole S. Ben-Maimon, M.D.

Title: President and Chief Executive Officer

[Signature Page to Registration Rights Agreement]

INVESTOR:

Name of Investor

(Signature)

Name of Signing Party (Please Print)

Title of Signing Party (Please Print)

Tax ID #

Date Signed

EXHIBIT A

Plan of Distribution

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

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

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment or supplement to this prospectus under Rule 424(b)(3) or other applicable provision of the 1933 Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling

stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

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

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the 1933 Act

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be deemed to be “underwriters” within the meaning of Section 2(11) of the 1933 Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the 1933 Act. To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the 1934 Act may apply to sales of shares in the market and to the activities of the selling stockholders and their Affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying any prospectus delivery requirements of the 1933 Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the 1933 Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the 1933 Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with such registration statement or (2) the date on which all of the shares may be sold by the selling stockholders without restriction (including any current public information requirement) pursuant to Rule 144 of the 1933 Act.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 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. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/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-3 of Larimar Therapeutics, Inc. of our report dated March 5, 2020, relating 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. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

June 26, 2020