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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): February 12, 2020

CATALYST BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

000-51173
(Commission
File Number)

56-2020050
(IRS Employer
Identification No.)

**611 Gateway Blvd, Suite 710, South
San Francisco, CA 94080**
(Address of principal executive offices)

(650) 871-0761
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	CBIO	Nasdaq

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

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 13(a) of the Exchange Act.

Item 1.01 Entry into a Material Definitive Agreement

On February 13, 2020, Catalyst Biosciences, Inc. (the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Raymond James & Associates, Inc., as the representative of the several underwriters named in Schedule I thereto (the “Underwriters”), pursuant to which the Company agreed to issue and sell an aggregate of 4,615,385 shares of its common stock (the “Shares”) to the Underwriters (the “Offering”). The Shares will be sold to the Underwriters at the public offering price of \$6.50 per share, less underwriting discounts and commissions. Pursuant to the Underwriting Agreement, the Company has granted the Underwriters a 30-day option to purchase up to an additional 692,307 shares of its common stock. The Underwriting Agreement contains customary representations and warranties, conditions to closing, market standoff provisions, termination provisions and indemnification obligations, including for liabilities under the Securities Act of 1933, as amended (the “Securities Act”). The Offering is being made pursuant to the shelf registration statement on Form S-3 (File No. 333-228970) that was filed by the Company with the Securities and Exchange Commission (“SEC”) on December 21, 2018 and declared effective by the SEC on February 14, 2019 and a related prospectus supplement.

The Company estimates that net proceeds from the Offering will be approximately \$27.8 million, after deducting underwriting discounts and commissions and estimated Offering expenses, and assuming no exercise of the Underwriters’ option to purchase additional shares of common stock. The Company intends to use the net proceeds from the Offering for general corporate purposes, which may include clinical and manufacturing activities for MarzAA and DalcA, research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs. The Company expects the Offering to close on February 18, 2020, subject to customary closing conditions.

The foregoing description of the Underwriting Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Underwriting Agreement. A copy of the Underwriting Agreement is filed with this Current Report on Form 8-K as Exhibit 1.1 and is incorporated herein by reference.

A copy of the opinion of Orrick, Herrington & Sutcliffe LLP, relating to the validity of the Shares in connection with the Offering, is filed with this Current Report on Form 8-K as Exhibit 5.1.

Item 2.02. Results of Operations and Financial Condition

On February 12, 2020, the Company filed with the SEC a preliminary prospectus supplement (the “Preliminary Prospectus”) pursuant to Rule 424(b) under the Securities Act of 1933 relating to the Offering. In the Preliminary Prospectus, the Company disclosed that it expects to report that the Company had cash, cash equivalents, and short-term investments of approximately \$76.9 million as of December 31, 2019. This amount, which does not include the \$15 million upfront payment from Biogen International GmbH in January 2020, is based solely upon information available to it as of the date of this Current Report on Form 8-K, is preliminary, has not been audited and is subject to change pending completion of the Company’s audited financial statements for the year ended December 31, 2019. Additional information and disclosures would be required for a more complete understanding of the Company’s financial position and results of operations as of December 31, 2019. The Company expects to complete its audited financial statements for the year ended December 31, 2019 subsequent to the completion of this offering. It is possible that the Company or its independent registered public accounting firm may identify items that require them to make adjustments to the preliminary estimated cash, cash equivalents and short-term investments balance set forth above and those changes could be material.

The information in this Item 2.02 shall not be deemed to be “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section or Sections 11 and 12(a)(2) of the Securities Act of 1933. The information contained in this Item 2.02 shall not be incorporated by reference into any registration statement or other document filed by the Company with the SEC, whether made before or after the date of this Current Report on Form 8-K, regardless of any general incorporation language in such filing (or any reference to this Current Report on Form 8-K generally), except as shall be expressly set forth by specific reference in such filing.

Item 8.01 Other Events

On February 12, 2020, the Company issued a press release announcing the Offering. A copy of the press release is attached hereto as Exhibit 99.1. On February 13, 2020, the Company issued a press release announcing it had priced the Offering. A copy of the press release is attached hereto as Exhibit 99.2.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
1.1	Underwriting Agreement, dated February 13, 2020, by and between Catalyst Biosciences, Inc. and Raymond James & Associates, Inc., as representative of the several Underwriters named therein
5.1	Legal Opinion of Orrick, Herrington & Sutcliffe LLP
23.1	Consent of Orrick, Herrington & Sutcliffe LLP (contained in Exhibit 5.1)
99.1	Press release issued by Catalyst Biosciences, Inc., dated February 12, 2020
99.2	Press release issued by Catalyst Biosciences, Inc., dated February 13, 2020

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: February 13, 2020

CATALYST BIOSCIENCES, INC.

/s/ Nassim Usman

Nassim Usman, Ph.D.

President and Chief Executive Officer

4,615,385 Shares¹

CATALYST BIOSCIENCES, INC.

Common Stock

UNDERWRITING AGREEMENT

February 13, 2020

Raymond James & Associates, Inc.
As Representative of the Several Underwriters
listed on Schedule I hereto
880 Carillon Parkway
St. Petersburg, Florida 33716

Ladies and Gentlemen:

Catalyst Biosciences, Inc., a Delaware corporation (the "Company"), proposes, subject to the terms and conditions stated herein, to issue and sell to the several Underwriters named in Schedule I hereto (the "Underwriters"), an aggregate of 4,615,385 shares of its Common Stock, par value \$0.001 per share (the "Common Stock"). The aggregate of 4,615,385 shares to be purchased from the Company are called the "Firm Shares." In addition, the Company has agreed to sell to the Underwriters, upon the terms and conditions stated herein, up to an additional 692,307 shares of Common Stock (the "Additional Shares") to cover over-allotments by the Underwriters, if any. The Firm Shares and the Additional Shares are collectively referred to in this Agreement as the "Shares." Raymond James & Associates, Inc. is acting as the representative of the several Underwriters and in such capacity is referred to in this Agreement as the "Representative."

The Company wishes to confirm as follows its agreement with you and the other several Underwriters, on whose behalf you are acting, in connection with the several purchases of the Shares from the Company.

¹ Plus an additional 692,307 shares subject to Underwriter's over-allotment option.

1. Registration Statement and Prospectus. The Company has prepared and filed with the Securities and Exchange Commission (the “Commission”) in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations of the Commission thereunder (collectively, the “Act”), a registration statement on Form S-3 (File No. 333-228970), including a base prospectus (the “Base Prospectus”), relating to, among other things, the Shares. Such registration statement, as amended, including the financial statements, exhibits and schedules thereto, at each time of effectiveness under the Act for purposes of Section 11 of the Act, as such section applies to the Underwriters (the “Effective Time”), including any required information deemed to be part thereof at the time of effectiveness pursuant to Rule 430B under the Act or the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (collectively, the “Exchange Act”) is referred to in this Agreement as the “Registration Statement.” Any preliminary prospectus supplement to the Base Prospectus that describes the Shares and the offering thereof and is used prior to filing of the Prospectus (as defined below) is referred to in this Agreement, together with the Base Prospectus, as a “Preliminary Prospectus.” The term “Prospectus” shall mean the prospectus supplement relating to the Shares, together with the Base Prospectus, that is first filed pursuant to Rule 424(b) under the Act after the date and time that this Agreement is executed and delivered by the parties hereto. If the Company files another registration statement with the Commission to register a portion of the Shares pursuant to Rule 462(b) under the Act (the “Rule 462 Registration Statement”), then any reference to “Registration Statement” herein shall be deemed to include the registration statement on Form S-3 (File No. 333-228970) and the Rule 462 Registration Statement, as each such registration statement may be amended pursuant to the Act. For purposes of this Agreement, “free writing prospectus” has the meaning ascribed to it in Rule 405 under the Act, and “Issuer Free Writing Prospectus” shall mean each free writing prospectus prepared by or on behalf of the Company or used or referred to by the Company in connection with the offering of the Shares. “Time of Sale Information” shall mean the Preliminary Prospectus together with the pricing information identified in Schedule II hereto and all other information identified on Schedule II hereto. All references in this Agreement to the Registration Statement, the Rule 462 Registration Statement, a Preliminary Prospectus, the Prospectus or the Time of Sale Information, or any amendments or supplements to any of the foregoing, shall be deemed to refer to and include any documents incorporated by reference therein, and shall include any copy thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System. Any reference in this Agreement to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Act, as of the date of the Registration Statement, such Preliminary Prospectus or the Prospectus, as the case may be, and any reference to any amendment or supplement to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any documents filed after such date under the Exchange Act that, upon filing, are incorporated by reference therein, as required by paragraph (b) of Item 12 of Form S-3. As used herein, the term “Incorporated Documents” means the documents that at the time of filing are incorporated by reference in the Registration Statement, any Preliminary Prospectus, the Prospectus or any amendment or supplement thereto.

2. Agreements to Sell and Purchase. Upon the terms and conditions set forth herein, the Company hereby agrees to issue and sell an aggregate of 4,615,385 Firm Shares to the Underwriters. Upon the basis of the representations, warranties and agreements of the Company herein contained and subject to all the terms and conditions set forth herein, each Underwriter agrees, severally and not jointly, to purchase from the Company at a purchase price of \$6.11 per Share (the “purchase price per Share”), the number of Firm Shares set forth opposite the name of such Underwriter in Schedule I hereto.

The Company hereby also agrees to sell to the Underwriters, and, upon the basis of the representations, warranties and agreements of the Company herein contained and subject to all the terms and conditions set forth herein, the Underwriters shall have the right to purchase, severally and not jointly, up to 692,307 Additional Shares from the Company at the purchase price per Share for the Firm Shares. The Additional Shares may be purchased solely for the purpose of covering over-allotments, if any, made in connection with the offering of the Firm Shares. If any Additional Shares are to be purchased, each Underwriter, severally and not jointly, agrees to purchase the number of Additional Shares (subject to such adjustments as you may determine to avoid fractional shares) that bears the same proportion to the total number of Additional Shares to be purchased by the Underwriter as the number of Firm Shares set forth opposite the name of such Underwriter in Schedule I hereto bears to the total number of Firm Shares. The option to purchase Additional Shares may be exercised, in whole or in part, by giving written notice not later than 30 days after the date of this Agreement.

3. Terms of Public Offering. The Company has been advised by you that the Underwriters propose to make a public offering of their respective portions of the Shares as soon after this Agreement has become effective as in your judgment is advisable and initially to offer the Shares upon the terms set forth in the Prospectus.

Not later than 12:00 p.m. on the second business day following the date the Shares are released by the Underwriters for sale to the public, the Company shall deliver or cause to be delivered copies of the Prospectus in such quantities and at such places as the Representative shall request.

4. Delivery of the Shares and Payment Therefor. Delivery to the Underwriters of the Firm Shares and payment therefor shall be made at the offices of Raymond James & Associates, Inc., 880 Carillon Parkway, St. Petersburg, Florida 33716, at 10:00 a.m., St. Petersburg, Florida time, on the second full business day following the date hereof or, if the pricing of the Firm Shares occurs after 4:30 p.m., St. Petersburg, Florida time, on the third full Business Day thereafter, or at such other date as shall be determined by the Representative and the Company (the time and date of such closing are called the "Closing Date").

Delivery to the Underwriters of and payment for any Additional Shares to be purchased by the Underwriters shall be made at the offices of Raymond James & Associates, Inc., 880 Carillon Parkway, St. Petersburg, Florida 33716, at 10:00 a.m., St. Petersburg, Florida time, on such date or dates (the "Additional Closing Date") (which may be the same as the Closing Date, but shall in no event be earlier than the Closing Date nor earlier than two nor later than ten business days after the giving of the notice hereinafter referred to) as shall be specified in a written notice, from the Representative on behalf of the Underwriters to the Company, of the Underwriters' determination to purchase a number, specified in such notice, of Additional Shares.

Such notice may be given at any time within 30 days after the date of the Prospectus and must set forth the aggregate number of Additional Shares as to which the Underwriters are exercising the option. The place of closing for the Additional Shares and the Additional Closing Date may be varied by agreement between you and the Company.

The Firm Shares and any Additional Shares to be purchased hereunder shall be delivered to you on the Closing Date or the Additional Closing Date, as the case may be, against payment of the purchase price therefore by wire transfer of immediately available funds to an account specified in writing, not later than the close of business on the business day next preceding the Closing Date or the Additional Closing Date, as the case may be, by the Company. Payment for the Shares sold by the Company hereunder shall be delivered by the Representative to the Company. Delivery of the Shares shall be made through the facilities of The Depository Trust Company unless the Representative shall otherwise instruct.

It is understood that the Representative has been authorized, for its own account and the accounts of the several Underwriters, to accept delivery of and receipt for, and make payment of the purchase price per Share for, the Firm Shares and the Additional Shares, if any, that the Underwriters have agreed to purchase. Raymond James & Associates, Inc., individually and not as Representative of the Underwriters, may, but shall not be obligated to, make payment for any Shares to be purchased by any Underwriter whose funds shall not have been received by the Representative by the Closing Date or the Additional Closing Date, as the case may be, for the account of such Underwriter, but any such payment shall not relieve such Underwriter from any of its obligations under this Agreement.

5. Covenants and Agreements of the Company. The Company covenants and agrees with the several Underwriters as follows:

(a) The Company will use its best efforts to cause the Registration Statement and any amendments thereto to become effective, if it has not already become effective, and will advise you promptly and, if requested by you, will confirm such advice in writing (i) when the Registration Statement has become effective and the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to any Preliminary Prospectus or the Prospectus and the time and date that any post-effective amendment to the Registration Statement becomes effective, (ii) if Rule 430B under the Act is employed, when the Prospectus has been timely filed pursuant to Rule 424(b) under the Act, (iii) of the receipt of any comments of the Commission, or any request by the Commission for amendments or supplements to the Registration Statement, any Preliminary Prospectus or the Prospectus or for additional information, (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of the suspension of qualification of the Shares for offering or sale in any jurisdiction or the initiation of any proceeding for such purposes and (v) within the period of time referred to in Section 5(h) hereof, of any event that comes to the attention of the Company that makes any statement made in the Registration Statement or the Prospectus (as then amended or supplemented) untrue in any material respect or that requires the making of any additions thereto or changes therein in order to make the statements therein (in the case of the Prospectus, in light of the circumstances under

which they were made) not misleading in any material respect, or of the necessity to amend or supplement the Prospectus (as then amended or supplemented) to comply with the Act or any other law. If at any time the Commission shall issue any stop order suspending the effectiveness of the Registration Statement, the Company will make every reasonable effort to obtain the withdrawal or lifting of such order at the earliest possible time. The Company will provide the Underwriters with copies of the form of Prospectus, in such number as the Underwriters may reasonably request, and file with the Commission such Prospectus in accordance with Rule 424(b) under the Act before the close of business on the first business day immediately following the date hereof.

(b) The Company will furnish to you, without charge, such number of conformed copies of the Registration Statement as originally filed and of each amendment thereto as you may reasonably request.

(c) The Company will promptly file with the Commission any amendment or supplement to the Registration Statement or the Prospectus that may, in the judgment of the Company or the Representative, be required by the Act or requested by the Commission.

(d) The Company will furnish a copy of any amendment or supplement to the Registration Statement or to the Prospectus or any Issuer Free Writing Prospectus to you and counsel for Underwriters and obtain your consent prior to filing any of those with the Commission.

(e) The Company will not make any offer relating to the Common Stock that would constitute an Issuer Free Writing Prospectus without your prior consent.

(f) The Company will retain in accordance with the Act all Issuer Free Writing Prospectuses not required to be filed pursuant to the Act; and if at any time after the date hereof any events shall have occurred as a result of which any Issuer Free Writing Prospectus, as then amended or supplemented, would conflict with the information in the Registration Statement, the most recent Preliminary Prospectus or the Prospectus or would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, or, if for any other reason it shall be necessary to amend or supplement any Issuer Free Writing Prospectus, to notify you and, upon your request, to file such document and to prepare and furnish without charge to each Underwriter as many copies as they may from time to time reasonably request of an amended or supplemented Issuer Free Writing Prospectus that will correct such conflict, statement or omission or effect such compliance.

(g) Prior to the execution and delivery of this Agreement, the Company has delivered or will deliver to you, without charge, in such quantities as you have requested or may hereafter reasonably request, copies of each form of the Preliminary Prospectus. Consistent with the provisions of Section 5(h) hereof, the Company consents to the use, in accordance with the provisions of the Act and with the securities or Blue Sky laws of the jurisdictions in which the Shares are offered by the several Underwriters and by dealers, prior to the date of the Prospectus, of each Preliminary Prospectus so furnished by the Company.

(h) As soon after the execution and delivery of this Agreement as is practicable and thereafter from time to time for such period as in the reasonable opinion of counsel for the Underwriters a prospectus is required by the Act to be delivered in connection with sales by any Underwriter or a dealer (the "Prospectus Delivery Period"), and for so long a period as you may request for the distribution of the Shares, the Company will deliver to each Underwriter and each dealer, without charge, as many copies of the Prospectus and the Time of Sale Information (and of any amendment or supplement thereto) as they may reasonably request. The Company consents to the use of the Prospectus and the Time of Sale Information (and of any amendment or supplement thereto) in accordance with the provisions of the Act and with the securities or Blue Sky laws of the jurisdictions in which the Shares are offered by the several Underwriters and by all dealers to whom Shares may be sold, both in connection with the offering and sale of the Shares and for such period of time thereafter as the Prospectus is required by the Act to be delivered in connection with sales by any Underwriter or dealer. If at any time prior to the later of (i) the completion of the distribution of the Shares pursuant to the offering contemplated by the Prospectus or (ii) the expiration of prospectus delivery requirements with respect to the Shares under Section 4(3) of the Act and Rule 174 thereunder, any event shall occur that in the judgment of the Company or in the opinion of counsel for the Underwriters is required to be set forth in the Prospectus (as then amended or supplemented) or should be set forth therein in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, or if it is necessary to supplement or amend the Prospectus to comply with the Act or any other law, the Company will forthwith prepare and, subject to Section 5(a) hereof, file with the Commission and use its best efforts to cause to become effective as promptly as possible an appropriate supplement or amendment thereto, and will furnish to each Underwriter who has previously requested Prospectuses, without charge, a reasonable number of copies thereof. In addition, during the Prospectus Delivery Period, the Company will file all documents required to be filed with the Commission pursuant to Sections 13, 14 and 15 of the Exchange Act in the manner and within the time periods required by the Exchange Act.

(i) The Company will cooperate with you and counsel for the Underwriters in connection with the registration or qualification of the Shares for offering and sale by the several Underwriters and by dealers under the securities or Blue Sky laws of such jurisdictions as you may reasonably designate and will file such consents to service of process or other documents as may be reasonably necessary in order to effect and maintain such registration or qualification for so long as required to complete the distribution of the Shares; provided that in no event shall the Company be obligated to qualify to do business in any jurisdiction where it is not now so qualified or to take any action that would subject it to general service of process in suits, other than those arising out of the offering or sale of the Shares, as contemplated by this Agreement and the Prospectus, in any jurisdiction where it is not now so subject. In the event that the qualification of the Shares in any jurisdiction is suspended, the Company shall so advise you promptly in writing. The Company will use its best efforts to qualify or register its Common Stock for sale in non-issuer transactions under (or obtain exemptions from the application of) the Blue Sky laws of each state where necessary to permit market making transactions and secondary trading and will comply with such Blue Sky laws and will continue such qualifications, registrations and exemptions in effect for so long as is required for the distribution of the Shares.

(j) The Company will make generally available to its security holders a consolidated earnings statement (in form complying with the provisions of Rule 158), which need not be audited, covering a twelve-month period commencing after the effective date of the Registration Statement and the Rule 462 Registration Statement, if any, and ending not later than 15 months thereafter, as soon as practicable after the end of such period, which consolidated earnings statement shall satisfy the provisions of Section 11(a) of the Act. Any report, communication or financial statement furnished or filed with the Commission that is publicly available on the Commission's Electronic Data Gathering, Analysis and Retrieval system ("EDGAR") shall be deemed to have been furnished to such security holders at the time furnished or filed with the Commission.

(k) During the period ending three years from the date hereof, the Company will furnish to you and, upon your request, to each of the other Underwriters, (i) as soon as practicable, a copy of each proxy statement, quarterly or annual report or other report of the Company mailed to stockholders or filed with the Commission, the Financial Industry Regulatory Authority, Inc. ("FINRA") or the Nasdaq Stock Market ("Nasdaq") or any national securities exchange and (ii) from time to time such other information concerning the Company as you may reasonably request, provided the Company will be deemed to have furnished such reports to you and the other Underwriters to the extent they are filed on the Commission's EDGAR or any successor system.

(l) If this Agreement shall terminate or shall be terminated after execution pursuant to any provision hereof (except pursuant to a termination under Section 12 hereof) or if this Agreement shall be terminated by the Underwriters because of any inability, failure or refusal on the part of the Company to perform in all material respects any agreement herein or to comply in all material respects with any of the terms or provisions hereof or to fulfill in all material respects any of the conditions of this Agreement, then (A) prior to the Closing Date, in addition to the payment of amounts in accordance with Section 7, the Company agrees to reimburse you and the other Underwriters for all out-of-pocket expenses (including documented travel expenses and reasonable fees and expenses of counsel for the Underwriters, but excluding wages and salaries paid by you) reasonably incurred by you pursuant to this Agreement in connection with the proposed purchase of the Firm Shares; and (B) after the Closing Date but prior to any Additional Closing Date with respect to the purchase of any Optional Shares pursuant to a notice delivered by the Underwriters to the Company as provided in this Agreement, the Company agrees to reimburse you and the other Underwriters for all out-of-pocket expenses (including documented travel expenses and reasonable fees and expenses of counsel for the Underwriters, but excluding wages and salaries paid by you) reasonably and actually incurred by you following the Closing Date pursuant to this Agreement in connection with the proposed purchase of such Additional Shares; provided that if this Agreement is terminated pursuant to Section 11 by reason of the default of one or more Underwriters, the Company shall not be obligated to reimburse any defaulting Underwriter on account of expenses to the extent incurred by such defaulting Underwriter; provided further that the foregoing shall not limit any reimbursement obligation of the Company to any non-defaulting Underwriter under this Section 5(l).

(m) The Company will apply the net proceeds from the sale of the Shares to be sold by it hereunder in accordance in all material respects with the statements under the caption "Use of Proceeds" in the Prospectus.

(n) For a period commencing on the date hereof and ending on the 90th day after the date of the Prospectus (the "Lock-Up Period"), not to, directly or indirectly, (1) offer for sale, sell, pledge or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any shares of Common Stock or securities convertible into or exchangeable for Common Stock, or sell or grant options, rights or warrants with respect to any shares of Common Stock or securities convertible into or exchangeable for Common Stock, (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of such shares of Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise, (3) file or cause to be filed a registration statement, including any amendments, with respect to the registration of any shares of Common Stock or securities convertible, exercisable or exchangeable into Common Stock or any other securities of the Company or (4) publicly disclose the intention to do any of the foregoing, in each case without the prior written consent of the Representative on behalf of the Underwriters. Notwithstanding the foregoing, the Company may (i) sell the Shares to the Underwriters, (ii) issue shares of Common Stock upon exercise, conversion, or exchange of options or other securities convertible or exercisable for shares of Common Stock outstanding on the date hereof, (iii) file one or more registrations statements registering the secondary sale of shares of Common Stock or securities convertible into or exchangeable or exercisable for shares of Common Stock, (iv) issue shares of Common Stock, options to purchase shares of Common Stock or restricted stock units or similar equity securities pursuant to any stock option, stock bonus or other stock plan or arrangement described in the Registration Statement or Prospectus, (v) issue shares of Common Stock, options, restricted stock units or similar equity securities to the Company's directors as compensation for their services as directors, (vi) enter into agreements providing for the issuance by the Company of shares of Common Stock or any security convertible into or exchangeable or exercisable for shares of Common Stock in connection with the acquisition by the Company or any of its subsidiaries of the securities, business, property or other assets of another person or entity (including pursuant to an employee benefit plan assumed by the Company in connection with such acquisition), and issue any such securities pursuant to any such agreement, and (vii) enter into agreements providing for the issuance of shares of Common Stock or any security convertible into or exercisable for shares of Common Stock in connection with joint ventures, commercial relationships, debt financing or other strategic transactions, and issue any such securities pursuant to any such agreements; provided that in the case of clauses (vi) and (vii), the aggregate number of shares of Common Stock that the Company may sell or issue or agree to sell or issue pursuant to clauses (vi) and (vii), taken together, shall not exceed 2.5% of the total number of shares of Common Stock issued and outstanding immediately subsequent to the completion of the transactions contemplated by this Agreement. In addition, the Company shall cause each officer and director of the Company set forth on Schedule III hereto to furnish to the Representative, prior to the Closing Date, a letter or letters, substantially in the form of Exhibit A hereto (the "Lock-Up Agreements").

(o) Prior to the Closing Date or the Additional Closing Date, as the case may be, the Company will furnish to you, as promptly as possible, copies of any unaudited interim consolidated financial statements of the Company and its subsidiary for any period subsequent to the periods covered by the financial statements appearing in the Prospectus.

(p) The Company will comply with all provisions of any undertakings contained in the Registration Statement.

(q) The Company will not at any time, directly or indirectly, take any action designed, or which might reasonably be expected to cause or result in, or which will constitute, stabilization or manipulation of the price of the shares of Common Stock to facilitate the sale or resale of any of the Shares.

(r) The Company will timely file with Nasdaq all documents and notices required by Nasdaq of companies that have or will issue securities that are traded on Nasdaq.

(s) The Company shall engage and maintain, at its expense, a transfer agent and, if necessary under the jurisdiction of its incorporation or the rules of any national securities exchange on which the Common Stock is listed, a registrar (which, if permitted by applicable laws and rules may be the same entity as the transfer agent) for the Common Stock.

6. **Representations and Warranties of the Company.** The Company hereby represents and warrants to each Underwriter on the date hereof, and shall be deemed to represent and warrant to each Underwriter on the Closing Date and the Additional Closing Date, as the case may be, that:

(a) The Company satisfies all of the requirements of the Act for use of Form S-3 for the offering of Shares contemplated hereby. The Company was not at the time of initial filing of the Registration Statement and is not on the date hereof an "ineligible issuer" (as defined in Rule 405 under the Act).

(b) The Registration Statement conformed, and any amendment to the Registration Statement filed after the date hereof will conform, in all material respects when filed to the applicable requirements of the Act. The most recent Preliminary Prospectus conformed, and the Prospectus will conform, in all material respects when filed with the applicable rules and regulations of the Commission pursuant to Rule 424(b) of the Act.

(c) At the respective times the Registration Statement and any amendments thereto became or become effective and at the Closing Date and any Additional Closing Date, the Registration Statement and any amendments thereto did not and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; *provided*, that no representation or warranty is made as to information contained in or omitted from the Registration Statement in reliance upon and in conformity with written information furnished to the Company through the Representative by or on behalf of any Underwriter specifically for inclusion therein.

(d) The Incorporated Documents heretofore filed, when they were filed (or, if any amendment with respect to any such document was filed, when such amendment was filed), conformed in all material respects with the requirements of the Exchange Act and the rules and regulations thereunder, and any further Incorporated Documents so filed will, when they are filed, conform in all material respects with the requirements of the Exchange Act and the rules and regulations thereunder; no such Incorporated Document when it was filed (or, if an amendment with respect to any such document was filed, when such amendment was filed), contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading, and no such further Incorporated Document, when it is filed, will contain an untrue statement of a material fact or will omit to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading.

(e) The Prospectus, as of its date and at the Closing Date and any Additional Closing Date did not and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that no representation or warranty is made as to information contained in or omitted from the Prospectus in reliance upon and in conformity with written information furnished to the Company through the Representative by or on behalf of any Underwriter specifically for inclusion therein.

(f) The Time of Sale Information, at the time of sale of the Shares, did not, and as of the Closing Date and as of the Additional Closing Date will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that no representation or warranty is made as to information contained in or omitted from the Time of Sale Information in reliance upon and in conformity with written information furnished to the Company through the Representative by or on behalf of any Underwriter specifically for inclusion therein.

(g) Each Issuer Free Writing Prospectus (including, without limitation, any road show that is a free writing prospectus under Rule 433 under the Act), when considered together with the Time of Sale Information at the time of sale of the Shares, did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(h) Each Issuer Free Writing Prospectus conformed or will conform in all material respects to the requirements of the Act on the date of first use, and the Company has complied with all prospectus delivery and any filing requirements applicable to such Issuer Free Writing Prospectus pursuant to the Act. The Company has not made any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus without the prior written consent of the Representative. The Company has retained in accordance with the Act all Issuer Free Writing Prospectuses that were not required to be filed pursuant to the Act. The Company has taken all actions necessary so that any "road show" (as defined in Rule 433 under the Act) in connection with the offering of the Shares will not be required to be filed pursuant to the Act.

(i) The authorized, issued and outstanding capitalization of the Company is as set forth in the Prospectus as of the date set forth therein. All the outstanding shares of Common Stock of the Company have been, and as of the Closing Date and the Additional Closing Date, as the case may be, will be, duly authorized and validly issued, are fully paid and nonassessable and are free of any preemptive or similar rights; except as set forth in the Time of Sale Information and the Prospectus, the Company is not a party to or bound by any outstanding options, warrants or similar rights to subscribe for, or contractual obligations to issue, sell, transfer or acquire, any of its capital stock or any securities convertible into or exchangeable for any of such capital stock; the Shares to be issued and sold to the Underwriters by the Company hereunder have been duly authorized and, when issued and delivered to the Underwriters against full payment therefor in accordance with the terms hereof will be validly issued, fully paid and nonassessable and free of any preemptive or similar rights; the capital stock of the Company conforms to the description thereof in the Registration Statement, the Time of Sale Information and the Prospectus (or any amendment or supplement thereto); and the delivery of certificates for the Shares being sold by the Company against payment therefor pursuant to the terms of this Agreement will pass valid title to the Shares being sold by the Company, free and clear of any claim, encumbrance or defect in title, to the several Underwriters purchasing such shares in good faith and without notice of any lien, claim or encumbrance. The certificates for the Shares being sold by the Company are in valid and sufficient form.

(j) Each of the Company and its subsidiary is duly organized and validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation with full corporate power and authority to own, lease and operate its properties and to conduct its business as presently conducted and as described in the Registration Statement, the Time of Sale Information and the Prospectus (and any amendment or supplement thereto) and is duly registered and qualified to conduct its business and is in good standing in each jurisdiction or place where the nature of its properties or the conduct of its business requires such registration or qualification, except where the failure to so register or qualify would not reasonably be expected to have, individually or in the aggregate, a material adverse effect on the condition (financial or other), business, properties, net worth, results of operations or prospects of the Company and its subsidiary taken as a whole (a "Material Adverse Effect").

(k) The issued shares of capital stock of the Company's subsidiary have been duly authorized and validly issued, are fully paid and nonassessable and are owned by the Company free and clear of any security interests, liens, encumbrances, equities or claims. The Company does not have any subsidiaries and does not own a material interest in or control, directly or indirectly, any other corporation, partnership, joint venture, association, trust or other business organization, except as set forth in Exhibit 21 to the Company's Annual Report on Form 10-K for its fiscal year ended December 31, 2018, which is incorporated by reference into the Prospectus (or any amendment or supplement thereto). As used in this Agreement, subsidiary shall mean Catalyst Bio, Inc., the Company's sole subsidiary.

(l) There are no legal or governmental proceedings pending or, to the knowledge of the Company, threatened, against the Company or its subsidiary or to which the Company or its subsidiary or any of their properties are subject, that are required to be described in the Registration Statement or the Prospectus (or any amendment or supplement thereto) but are not described in all material respects as required. Except as described in the Registration Statement, the Time of Sale Information and Prospectus, there is no action, suit, inquiry, proceeding or investigation by or before any court or governmental or other regulatory or administrative agency or commission pending or, to the knowledge of the Company, threatened, against or involving the Company or its subsidiary, which might individually or in the aggregate prevent or adversely affect the transactions contemplated by this Agreement or reasonably be expected to result in a Material Adverse Effect, nor to the Company's knowledge, is there any basis for any such action, suit, inquiry, proceeding or investigation. There are no agreements, contracts, indentures, leases or other instruments to which the Company is subject or by which the Company is bound that are required to be described in the Registration Statement, the Time of Sale Information or the Prospectus (or any amendment or supplement thereto) or to be filed as an exhibit to the Registration Statement that are not described in all material respects, filed or incorporated by reference in the Registration Statement, the Time of Sale Information and the Prospectus as required by the Act. All such contracts to which the Company or its subsidiary is a party have been duly authorized, executed and delivered by the Company or its subsidiary, constitute valid and binding agreements of the Company or its subsidiary and are enforceable against the Company or its subsidiary in accordance with the terms thereof, except as enforceability thereof may be limited by (i) the application of bankruptcy, reorganization, insolvency and other laws affecting creditors' rights generally and (ii) equitable principles being applied at the discretion of a court before which any proceeding may be brought. Neither the Company nor its subsidiary has received notice or been made aware that any other party is in breach of or default to the Company under any of such contracts.

(m) Neither the Company nor its subsidiary is (i) in violation of (A) its certificate of incorporation or bylaws, or other organizational documents, (B) any federal, state or foreign law, ordinance, administrative or governmental rule or regulation applicable to the Company or its subsidiary, the violation of which would reasonably be expected to have a Material Adverse Effect or (C) any decree of any federal, state or foreign court or governmental agency or body having jurisdiction over the Company or its subsidiary, the violation of which would reasonably be expected to have a Material Adverse Effect; or (ii) in default in any material respect in the performance of any obligation, agreement or condition contained in (A) any bond, debenture, note or any other evidence of indebtedness or (B) any agreement, indenture, lease or other instrument (each of (A) and (B), an "Existing Instrument") to which the Company or its subsidiary is a party or by which any of their properties may be bound, which default would reasonably be expected to have a Material Adverse Effect; and there does not exist any state of facts that constitutes an event of default on the part of the Company or its subsidiary as defined in such documents or that, with notice or lapse of time or both, would reasonably be expected to constitute such an event of default.

(n) The Company's execution and delivery of this Agreement and the performance by the Company of its obligations under this Agreement have been duly and validly authorized by the Company, and this Agreement constitutes a valid and legally binding agreement of the Company, enforceable against the Company in accordance with its terms, except to the extent enforceability may be limited by (i) the application of bankruptcy, reorganization, insolvency and other laws affecting creditors' rights generally and (ii) equitable principles being applied at the discretion of a court before which any proceeding may be brought, except as rights to indemnity and contribution hereunder may be limited by federal or state securities laws.

(o) None of the issuance and sale of the Shares by the Company, the execution, delivery or performance of this Agreement by the Company nor the consummation by the Company of the transactions contemplated hereby (i) requires any consent, approval, authorization or other order of or registration or filing with, any court, regulatory body, administrative agency or other governmental body, agency or official (except such as have been obtained or waived or may be required for the registration of the Shares under the Act, the listing of the Shares for trading on Nasdaq, the registration of the Common Stock under the Exchange Act and compliance with the securities or Blue Sky laws of various jurisdictions, all of which will be, or have been, effected in accordance with this Agreement and except for FINRA's clearance of the underwriting terms of the offering contemplated hereby as required under FINRA's Rules of Fair Practice), (ii) conflicts with or will conflict with or constitutes or will constitute a breach of, or a default under, the Company's certificate of incorporation or the Company's bylaws or any agreement, indenture, lease or other instrument to which the Company or its subsidiary is a party or by which any of its properties may be bound, (iii) violates any statute, law, regulation, ruling, filing, judgment, injunction, order or decree applicable to the Company or its subsidiary or any of their properties, or (iv) results in a breach of, or default or Debt Repayment Triggering event (as defined below) under, or results in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or its subsidiary pursuant to, or requires the consent of any other party to, any Existing Instrument, except for such conflicts, breaches, defaults, liens, charges or encumbrances that will not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. As used herein, a "Debt Repayment Triggering Event" means any event or condition that gives, or with the giving of notice or lapse of time would give, the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or its subsidiary.

(p) Except as described in the Time of Sale Information and the Prospectus, and except for options to purchase capital stock issued pursuant to the Company's 2018 Omnibus Incentive Plan and 2015 Stock Incentive Plan, neither the Company nor its subsidiary has outstanding and at the Closing Date and the Additional Closing Date, as the case may be, will have outstanding any options to purchase, or any warrants to subscribe for, or any securities or obligations convertible into, or any contracts or commitments to issue or sell, any shares of Common Stock or any such warrants or convertible securities or obligations. No holder of securities of the Company has rights to the registration of any securities of the Company as a result of or in connection with the filing of the Registration Statement or the consummation of the transactions contemplated hereby that have not been satisfied or heretofore waived in writing.

(q) EisnerAmper LLP, the certified public accountants who have certified the financial statements of the Company and its subsidiary (including the related notes thereto and supporting schedules) filed as part of the Registration Statement and the Prospectus (or any amendment or supplement thereto), are independent public accountants as required by the Act and the Public Company Accounting Oversight Board.

(r) Except as disclosed in the Registration Statement, the Time of Sale Information and the Prospectus (or any amendment or supplement thereto), (i) neither the Company nor its subsidiary has incurred any material liabilities or obligations, indirect, direct or contingent, or entered into any transaction that is not in the ordinary course of business, (ii) neither the Company nor its subsidiary has sustained any material loss or interference with its business or properties from fire, flood, windstorm, accident or other calamity, whether or not covered by insurance, (iii) neither the Company nor its subsidiary has paid or declared any dividends or other distributions with respect to its capital stock and the Company is not in default under the terms of any class of capital stock of the Company or any outstanding debt obligations, (iv) there has not been any change in the authorized or outstanding capital stock of the Company (other than (A) the grant of additional awards under equity incentive plans, (B) changes in the number of shares of outstanding Common Stock due to the issuance of shares upon exercise or conversion of securities exercisable for, or convertible into, Common Stock outstanding on the date hereof, (C) any repurchase of capital stock of the Company, (D) as a result of the sale of Shares, or (E) other than as publicly reported or announced) or any material change in the indebtedness of the Company (other than in the ordinary course of business) and (v) there has not been any material adverse change, or any development that could reasonably be expected to result in a prospective Material Adverse Effect, in the condition (financial or otherwise), business, properties, net worth, result of operations or prospects of the Company.

(s) The Common Stock (including the Shares) is registered pursuant to Section 12(b) of the Exchange Act and is listed on Nasdaq, and the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from Nasdaq, nor has the Company received any notification that the Commission or Nasdaq is contemplating terminating such registration or listing.

(t) Other than excepted activity pursuant to Regulation M under the Exchange Act, the Company has not taken and will not take, directly or indirectly, any action that constituted, or any action designed to, or that might reasonably be expected to cause or result in or constitute, under the Act or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares or for any other purpose.

(u) The Company and its subsidiary have filed all tax returns required to be filed (other than certain state or local tax returns, as to which the failure to file, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect on the Company and its subsidiary, taken as a whole), which returns are complete and correct, and

neither the Company nor its subsidiary is in default in the payment of any taxes that were payable pursuant to said returns or any assessments with respect thereto. Except as disclosed in the Time of Sale Information and the Prospectus, all deficiencies asserted as a result of any federal, state, local or foreign tax audits have been paid or finally settled and no issue has been raised in any such audit that, by application of the same or similar principles, reasonably could be expected to result in a proposed deficiency for any other period not so audited. There are no outstanding agreements or waivers extending the statutory period of limitation applicable to any federal, state, local or foreign tax return for any period. On the Closing Date and the Additional Closing Date, as the case may be, all stock transfer and other taxes that are required to be paid in connection with the sale of the shares to be sold by the Company to the Underwriters will have been fully paid by the Company and all laws imposing such taxes will have been complied with.

(v) Except as set forth in the Time of Sale Information and the Prospectus, there are no transactions with “affiliates” (as defined in Rule 405 under the Act) or any officer, director or security holder of the Company (whether or not an affiliate) that are required by the Act to be disclosed in the Registration Statement. Additionally, no relationship, direct or indirect, exists between the Company or its subsidiary on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company or its subsidiary on the other hand that is required by the Act to be disclosed in the Registration Statement, the Time of Sale Information and the Prospectus that is not so disclosed.

(w) The Company is not an “investment company” or an “affiliated person” of, or “promoter” or “principal underwriter” for, an investment company within the meaning of the Investment Company Act of 1940, as amended.

(x) The Company and its subsidiary do not own any real property. Except as otherwise disclosed in the Time of Sale Information and the Prospectus, each of the Company and its subsidiary has good and valid title to all personal property described in the Time of Sale Information and the Prospectus as being owned by it, free and clear of all liens, claims, security interests or other encumbrances except such as are not materially burdensome and do not have or will not reasonably be expected to result in a Material Adverse Effect to the use of the property or the conduct of the business of the Company. All property (real and personal) held under lease by the Company and its subsidiary is held by it under valid, subsisting and enforceable leases with only such exceptions as in the aggregate are not materially burdensome and do not have or will not reasonably be expected to result in a Material Adverse Effect to the use of the property or the conduct of the business of the Company.

(y) Except as otherwise disclosed in the Time of Sale Information and the Prospectus, each of the Company and its subsidiary has all permits, licenses, franchises, approvals, consents and authorizations of governmental or regulatory authorities (hereinafter “permit” or “permits”) as are necessary to own its properties and to conduct its business in the manner described in the Time of Sale Information and the Prospectus, subject to such qualifications as may be set forth in the Time of Sale Information and the Prospectus, except where the failure to have obtained any such permit has not had and will not reasonably be expected to have a Material Adverse Effect; each of the Company and its subsidiary has operated

and is operating its business in material compliance with and not in material violation of all of its obligations with respect to each such permit and no event has occurred that allows, or after notice or lapse of time would allow, revocation or termination of any such permit or result in any other material impairment of the rights of any such permit, subject in each case to such qualification as may be set forth in the Time of Sale Information and the Prospectus; and, except as described in the Time of Sale Information and the Prospectus, such permits contain no restrictions that are materially burdensome to the Company or its subsidiary.

(z) The consolidated financial statements of the Company, together with the related schedules and notes thereto, set forth or incorporated by reference in the Time of Sale Information and the Prospectus present fairly in all material respects (i) the financial condition of the Company and its consolidated subsidiary as of the dates indicated and (ii) the consolidated results of operations, stockholders' equity and changes in cash flows of the Company and its consolidated subsidiary for the periods therein specified; and such financial statements and related schedules and notes thereto have been prepared in conformity with United States generally accepted accounting principles, consistently applied throughout the periods involved (except as otherwise stated therein and subject, in the case of unaudited financial statements, to the absence of footnotes and normal year-end adjustments). There are no other financial statements (historical or pro forma) that are required to be included or incorporated by reference in the Time of Sale Information and the Prospectus; and the Company does not have any material liabilities or obligations, direct or contingent (including any off-balance sheet obligations), not disclosed in the Time of Sale Information and the Prospectus; and all disclosures contained in the Time of Sale Information and the Prospectus regarding "non-GAAP financial measures" (as such term is defined by the rules and regulations of the Commission) comply with Regulation G of the Exchange Act and Item 10(e) of Regulation S-K under the Act, to the extent applicable, and present fairly the information shown therein and the Company's basis for using such measures. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(aa) The Company and its subsidiary maintain a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets, (iii) access to assets is permitted only in accordance with management's general or specific authorizations, (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences and (v) the interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(bb) The Company has established and maintains and evaluates “disclosure controls and procedures” (as such term is defined in Rule 13a-15 and 15d-15 under the Exchange Act); such disclosure controls and procedures are designed to ensure that material information relating to the Company, including its consolidated subsidiary, is made known to the Company’s principal executive officers (or their equivalents) and principal financial officers (or their equivalents) by others within those entities, and such disclosure controls and procedures are effective to perform the functions for which they were established; the Company’s independent auditors and the Audit Committee of the Board of Directors of the Company have been advised of (i) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which could adversely affect the Company’s ability to record, process, summarize, and report financial data and (ii) any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over financial reporting; since the date of the most recent evaluation of such disclosure controls and procedures, except as described in the Registration Statement, the Preliminary Prospectus and the Prospectus, there have been no significant changes in internal control over financial reporting or in other factors that could significantly affect internal control over financial reporting, including any corrective actions with regard to significant deficiencies and material weaknesses; the principal executive officers (or their equivalents) and principal financial officers (or their equivalents) of the Company have made all certifications required by the Sarbanes-Oxley Act (the “Sarbanes-Oxley Act”) and any related rules and regulations promulgated by the Commission, and the statements contained in each such certification are complete and correct; the Company and its subsidiary are, and the Company has taken all necessary actions to ensure that the Company’s directors and officers in their capacities as such are, each in compliance in all material respects with all applicable effective provisions of the Sarbanes-Oxley Act and the rules and regulations of the Commission and Nasdaq promulgated thereunder.

(cc) The Company and, to the knowledge of the Company, the Company’s directors or officers, in their capacities as such, are each in compliance in all material respects with Section 402 of the Sarbanes-Oxley Act and the rules and regulations promulgated thereunder.

(dd) The Company has not, prior to the date hereof, made any offer or sale of securities which could be “integrated” for purposes of the Act with the offer and sale of the Shares pursuant to the Registration Statement and the Prospectus; and except as disclosed in the Time of Sale Information and the Prospectus, the Company has not sold or issued any security during the 180-day period preceding the date of the Prospectus, including but not limited to any sales pursuant to Rule 144A or Regulation D or S under the Act, other than shares of Common Stock used pursuant to employee benefit plans, qualified stock option plans or the employee compensation plans or pursuant to outstanding options, rights or warrants as described in the Time of Sale Information and the Prospectus.

(ee) Neither the Company nor its subsidiary nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company or its subsidiary is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the “Foreign Corrupt Practices Act”), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an

offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any “foreign official” (as such term is defined in the Foreign Corrupt Practices Act) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the Foreign Corrupt Practices Act; and the Company, its subsidiary and, to the knowledge of the Company, its affiliates have conducted their businesses in compliance in all material respects with the Foreign Corrupt Practices Act and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance in all material respects therewith.

(ff) Neither the Company nor its subsidiary nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company or its subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury (“OFAC”); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to its subsidiary, any joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(gg) The operations of the Company and its subsidiary are and have been conducted at all times in compliance in all material respects with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the United and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (the “Patriot Act”) or the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency.

(hh) No labor problem or dispute with the employees of the Company or its subsidiary exists, or, to the Company’s knowledge, is threatened or imminent, which would reasonably be expected to result in a Material Adverse Effect. The Company is not aware that any key employee or significant group of employees of the Company or its subsidiary plans to terminate employment with the Company or its subsidiary. Neither the Company nor its subsidiary has engaged in any unfair labor practice, and except for matters which would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect, (i) there is (A) no unfair labor practice complaint pending or, to the Company’s knowledge, threatened against the Company or its subsidiary before the National Labor Relations Board, and no grievance or arbitration proceeding arising out of or under collective bargaining agreements is pending or to the Company’s knowledge, threatened, (B) no strike, labor dispute, slowdown or stoppage pending or, to the Company’s knowledge, threatened against the Company or its subsidiary and (C) no union representation dispute currently existing concerning the employees of the Company or its subsidiary and (ii) to the Company’s knowledge, (A) no union organizing activities are currently taking place concerning the employees of the Company or its subsidiary and (B) there has been no violation of any federal, state, local or foreign law relating to discrimination in the hiring, promotion or pay of employees, any applicable wage or hour laws or any provision of the Employee Retirement Income Security Act of 1974 (“ERISA”) or the rules and regulations promulgated thereunder concerning the employees of the Company or its subsidiary.

(ii) Except as otherwise disclosed in the Time of Sale Information and the Prospectus, the Company and its subsidiary, taken as a whole, are (i) in compliance with any and all applicable federal, state, local and foreign laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (“Environmental Laws”), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where such noncompliance with Environmental Laws, failure to receive required permits, licenses or other approvals or failure to comply with the terms and conditions of such permits, licenses or other approvals would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Except as set forth in the Time of Sale Information and the Prospectus, neither the Company nor its subsidiary has been named as a “potentially responsible party” under the Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended. Except as set forth in the Time of Sale Information and the Prospectus, neither the Company nor its subsidiary owns, leases or occupies any property that appears on any list of hazardous sites compiled by any state or local governmental agency. There are no costs or liabilities associated with Environmental Laws (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws or any permit, license or approval, any related constraints on operating activities and any potential liabilities to third parties) which would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

(jj) Except as otherwise disclosed in the Time of Sale Information and the Prospectus, each of the Company and its subsidiary owns and has full right, title and interest in and to, or has valid licenses to use, each material trade name, trademark, service mark, patent, copyright, approval, trade secret and other similar rights (collectively “Intellectual Property”) under which the Company and its subsidiary conduct all or any material part of its business as of the date hereof, provided that the foregoing representation is made only to the Company’s knowledge as it concerns third-party Intellectual Property, and the Company has not created any lien or encumbrance on, or granted any right or license with respect to, any such Intellectual Property, except where the failure to own or obtain a license or right to use any such Intellectual Property has not and will not reasonably be expected to have a Material Adverse Effect; there is no claim pending against the Company or its subsidiary with respect to any Intellectual Property and the Company and its subsidiary have not received written notice or otherwise become aware that any Intellectual Property that it uses or has used in the conduct of its business infringes upon or conflicts with the rights of any third party, which, singularly or in the aggregate, would reasonably be expected to result in a Material Adverse Effect.

(kk) There is no legal or governmental proceeding to which the Company or its subsidiary is a party or of which any property or assets of the Company or its subsidiary is the subject, including any proceeding before the United States Food and Drug Administration of the U.S. Department of Health and Human Services (“FDA”) or comparable federal, state, local or

foreign governmental bodies (it being understood that ordinary course of business interactions between the Company and the FDA and such comparable governmental bodies relating to the nonclinical and clinical development and product review and approval process shall not be deemed proceedings for purposes of this representation), which is required to be described in the Registration Statement, the Time of Sale Information or the Prospectus or a document incorporated by reference therein and is not described therein, or which, singularly or in the aggregate, if determined adversely to the Company or its subsidiary, could reasonably be expected to have a Material Adverse Effect; and to the best of the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others. The Company and its subsidiary is in compliance with all applicable federal, state, local and foreign laws, regulations, orders and decrees governing its business as prescribed by the FDA, or any other federal, state or foreign agencies or bodies engaged in the regulation of pharmaceuticals, medical devices, biologics, cellular, tissue or gene therapies or biohazardous substances or materials, except where noncompliance would not, singularly or in the aggregate, reasonably be expected to have a Material Adverse Effect. All preclinical studies and clinical trials conducted by or on behalf of the Company or its subsidiary to support approval for commercialization of the Company's or its subsidiary's products have been conducted by the Company or its subsidiary, as applicable, or to the Company's knowledge by third parties, in compliance with all applicable federal, state or foreign laws, rules, orders and regulations, except for such failure or failures to be in compliance as could not reasonably be expected to have, singularly or in the aggregate, a Material Adverse Effect.

(ll) The Company has procured Lock-Up Agreements, in the form of Exhibit A attached hereto, from each of the persons or entities listed on Schedule III.

(mm) To the Company's knowledge, there are no affiliations or associations between (i) any member of FINRA and (ii) the Company or any of the Company's officers, directors, 5% or greater security holders or any beneficial owner of the Company's unregistered equity securities that were acquired at any time on or after the 180th day immediately preceding the date the Registration Statement was initially filed with the Commission, except as otherwise disclosed in the Registration Statement, the Time of Sale Information and the Prospectus.

(nn) Except as otherwise disclosed in the Time of Sale Information and the Prospectus, the Company and its subsidiary are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are, in the Company's reasonable judgment, prudent and customary in the businesses in which it is engaged; and neither the Company nor its subsidiary has reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a comparable cost.

(oo) Except as otherwise disclosed in the Time of Sale Information and the Prospectus, the Company and its subsidiary and any "employee benefit plan" (as defined under ERISA) established or maintained by the Company, its subsidiary or their "ERISA Affiliates" (as defined below) are in compliance in all material respects with ERISA and all other applicable state and federal laws. "ERISA Affiliate" means, with respect to the Company or its subsidiary,

any member of any group or organization described in Sections 414(b), (c), (m) or (o) of the Code of which the Company or its subsidiary is a member. No “reportable event” (as defined in ERISA) has occurred or is reasonably expected to occur with respect to any “employee benefit plan” established or maintained by the Company, its subsidiary or any of their ERISA Affiliates. No “employee benefit plan” established or maintained by the Company, its subsidiary or any of their ERISA Affiliates, if such “employee benefit plan” were terminated, would have any “amount of unfunded benefit liabilities” (as defined in ERISA). Neither the Company, its subsidiary nor any of their ERISA Affiliates has incurred or reasonably expects to incur any liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any “employee benefit plan” or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each “employee benefit plan” established or maintained by the Company, its subsidiary or any of their ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or failure to act, that would cause the loss of such qualification.

(pp) As of the time of filing of the Registration Statement, the Company was a “smaller reporting company,” as defined in Rule 12b-2 of the Exchange Act.

7. Expenses. Whether or not the transactions contemplated hereby are consummated or this Agreement becomes effective or is terminated, the Company agrees to pay or cause to be paid the following: (i) the fees, disbursements and expenses of the Company’s counsel and accountants in connection with the registration of the Shares under the Act and all other expenses in connection with the preparation, printing and filing of the Registration Statement and the Prospectus and amendments and supplements thereto and the mailing and delivering of copies thereof and of any Preliminary Prospectus to the Underwriters and dealers; (ii) the printing and delivery (including postage, air freight charges and charges for counting and packaging) of such copies of the Registration Statement, the Prospectus, each Preliminary Prospectus, the Time of Sale Information, the Blue Sky memoranda, this Agreement and all amendments or supplements to any of them as may be reasonably requested for use in connection with the offering and sale of the Shares; (iii) consistent with the provisions of Section 5(i), all expenses in connection with the qualification of the Shares for offering and sale under state securities laws or Blue Sky laws, including reasonable attorneys’ fees and out-of-pocket expenses of the counsel for the Underwriters in connection therewith; (iv) the filing fees incident to securing any required review by FINRA of the fairness of the terms of the sale of the Shares and the reasonable and documented fees and disbursements of the Underwriters’ counsel relating thereto; (v) the fees and expenses associated with including the Shares on Nasdaq; (vi) the cost of preparing stock certificates; (vii) the costs and charges of any transfer agent or registrar; (viii) the cost of the tax stamps, if any, in connection with the issuance and delivery of the Shares to the respective Underwriters; (ix) all other fees, costs and expenses referred to in Item 14 of the Registration Statement; and (x) the transportation, lodging, graphics and other expenses incidental to the Company’s preparation for and participation in the “roadshow” for the offering contemplated hereby. Except as provided in this Section 7 and in Section 8 hereof, the Underwriters shall pay their own expenses, including the fees and disbursements of their counsel, provided, that the Company shall reimburse the Underwriters for fees, disbursements and other charges of counsel to the Underwriters in an amount not to exceed \$100,000. In addition, in the event that the proposed offering is terminated for the reasons set forth in Section 5(l) hereof, the Company agrees to reimburse the Underwriters as provided in Section 5(l).

8. Indemnification and Contribution. Subject to the limitations in this paragraph below, the Company agrees to indemnify and hold harmless you and each other Underwriter, the directors, officers, employees and agents of each Underwriter, and each person, if any, who controls any Underwriter within the meaning of Section 15 of the Act or Section 20 of the Exchange Act from and against any and all losses, claims, damages, liabilities and expenses, including reasonable costs of investigation and attorneys' fees and expenses (collectively, "Damages") arising out of or based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, in the Registration Statement, the Time of Sale Information, any Issuer Free Writing Prospectus or the Prospectus or in any amendment or supplement thereto, or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein (in the case of the Prospectus, in light of the circumstances under which they were made) not misleading, except to the extent that any such Damages arise out of or are based upon an untrue statement or omission or alleged untrue statement or omission that has been made therein or omitted therefrom in reliance upon and in conformity with the information furnished in writing to the Company by or on behalf of any Underwriter through you, expressly for use in connection therewith or (ii) any inaccuracy in or breach of the representations and warranties of the Company contained herein or any failure of the Company to perform its obligations hereunder or under law; provided, however, that with respect to any untrue statement or omission made in any Preliminary Prospectus, the indemnity agreement contained in this paragraph shall not inure to the benefit of any Underwriter (or to the benefit of any person controlling such Underwriter or to any officer, director, employee or agent of any Underwriter) from whom the person asserting any such Damages purchased the Shares concerned if both (A) a copy of the Time of Sale Information was not sent or given to such person at or prior to the written confirmation of the sale of such Shares to such person as required by the Act and (B) the untrue statement or omission in the Preliminary Prospectus was corrected in the Time of Sale Information. This indemnification shall be in addition to any liability that the Company may otherwise have.

In addition to its other obligations under this Section 8, the Company agrees that, as an interim measure during the pendency of any claim, action, investigation, inquiry or other proceeding arising out of or based upon any statement or omission, or any inaccuracy in the representations and warranties of the Company herein or failure to perform its obligations hereunder, all as set forth in this Section 8, the party against whom indemnification is being sought will reimburse each Underwriter on a monthly basis for all reasonable, documented legal or other out-of-pocket expenses incurred in connection with investigating or defending any such claim, action, investigation, inquiry or other proceeding (to the extent documented by reasonably itemized invoices therefor), notwithstanding the absence of a judicial determination as to the propriety and enforceability of the obligation of the Company to reimburse each Underwriter for such expenses and the possibility that such payments might later be held to have been improper by a court of competent jurisdiction. To the extent that any such interim reimbursement payment is so held to have been improper, each Underwriter shall promptly return it to the person(s) from whom it was received. Any such interim reimbursement payments that are not made to the Underwriters within 30 days of a request for reimbursement shall bear interest compounded daily at a rate determined on the basis of the base lending rate announced from time to time by The Wall Street Journal from the date of such request.

If any action or claim shall be brought against any Underwriter or any person controlling any Underwriter in respect of which indemnity may be sought against the Company, such Underwriter or such controlling person shall promptly notify in writing the party(s) against whom indemnification is being sought (the "indemnifying party" or "indemnifying parties"), and such indemnifying party(s) shall assume the defense thereof, including the employment of counsel reasonably acceptable to such Underwriter or such controlling person and the payment of all reasonable fees of and expenses incurred by such counsel. Such Underwriter or any such controlling person shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Underwriter or such controlling person, unless (i) the indemnifying party(s) has (have) agreed in writing to pay such fees and expenses, (ii) the indemnifying party(s) has (have) failed to assume the defense and employ counsel reasonably acceptable to the Underwriter or such controlling person or (iii) the named parties to any such action (including any impleaded parties) include both such Underwriter or such controlling person and the indemnifying party(s), and such Underwriter or such controlling person shall have been advised by its counsel that one or more legal defenses may be available to the Underwriter that may not be available to the Company, or that representation of such indemnified party and any indemnifying party(s) by the same counsel would be inappropriate under applicable standards of professional conduct (whether or not such representation by the same counsel has been proposed) due to actual or potential differing interests between them (in which case the indemnifying party(s) shall not have the right to assume the defense of such action on behalf of such Underwriter or such controlling person (but the Company shall not be liable for the fees and expenses of more than one counsel for the Underwriters and such controlling persons)). The indemnifying party(s) shall not be liable for any settlement of any such action effected without its (their several) written consent, but if settled with such written consent, or if there be a final judgment for the plaintiff in any such action, the indemnifying party(s) agree(s) to indemnify and hold harmless any Underwriter and any such controlling person from and against any loss, claim, damage, liability or expense by reason of such settlement or judgment, but in the case of a judgment only to the extent stated in the first paragraph of this Section 8.

Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, its directors, its officers who sign the Registration Statement and any person who controls the Company within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, to the same extent as the foregoing several indemnity from the Company to each Underwriter, but only with respect to information furnished in writing by or on behalf of such Underwriter through you expressly for use in the Registration Statement, the Prospectus, the Time of Sale Information, any Issuer Free Writing Prospectus or any Preliminary Prospectus, or any amendment or supplement thereto. If any action or claim shall be brought or asserted against the Company, any of its directors, any of its officers or any such controlling person based on the Registration Statement, the Prospectus, the Time of Sale Information or any Preliminary Prospectus, or any amendment or supplement thereto, and in respect of which indemnity may be

sought against any Underwriter pursuant to this paragraph, such Underwriter shall have the rights and duties given to the Company by the immediately preceding paragraph (except that if the Company shall have assumed the defense thereof such Underwriter shall not be required to do so, but may employ separate counsel therein and participate in the defense thereof, but the fees and expenses of such counsel shall be at such Underwriter's expense), and the Company, its directors, any such officers and any such controlling persons, shall have the rights and duties given to the Underwriters by the immediately preceding paragraph.

In any event, the Company will not, without the prior written consent of the Representative, settle or compromise or consent to the entry of any judgment in any proceeding or threatened claim, action, suit or proceeding in respect of which the indemnification may be sought hereunder (whether or not the Representative or any person who controls the Representative within the meaning of Section 15 of the Act or Section 20 of the Exchange Act is a party to such claim, action, suit or proceeding) unless such settlement, compromise or consent includes an unconditional release of all Underwriters and such controlling persons from all liability arising out of such claim, action, suit or proceeding.

If the indemnification provided for in this Section 8 is unavailable or insufficient for any reason whatsoever to an indemnified party in respect of any Damages referred to herein, then an 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 Damages (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand, and the Underwriters on the other hand, from the offering and sale of the Shares or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative and several fault of the Company on the one hand, and the Underwriters on the other hand, in connection with the statements or omissions that resulted in such Damages as well as any other relevant equitable considerations. The relative and several benefits received by the Company on the one hand, and the Underwriters on the other hand, shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus; provided that, in the event that the Underwriters shall have purchased any Additional Shares hereunder, any determination of the relative benefits received by the Company or the Underwriters from the offering of the Shares shall include the net proceeds (before deducting expenses) received by the Company and the underwriting discounts and commissions received by the Underwriters, from the sale of such Additional Shares, in each case computed on the basis of the respective amounts set forth in the notes to the table on the cover page of the Prospectus. The relative fault of the Company on the one hand, and the Underwriters on the other hand, shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand, or by the Underwriters on the other hand and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 8 was determined by a pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. The amount paid or payable by an indemnified party as a result of the Damages referred to in the immediately preceding paragraph shall be deemed to include, subject to the limitations set forth above, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 8, no Underwriter shall be required to contribute any amount in excess of the amount of the underwriting commissions received by such underwriter in connection with the Shares underwritten by it and distributed to the public. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations to contribute pursuant to this Section 8 are several in proportion to the respective numbers of Firm Shares set forth opposite their names in Schedule I hereto (or such numbers of Firm Shares increased as set forth in Section 10 hereof) and not joint.

Notwithstanding the second paragraph of this Section 8, any Damages for which an indemnified party is entitled to indemnification or contribution under this Section 8 shall be paid by the indemnifying party to the indemnified party as Damages are incurred after receipt of reasonably itemized invoices therefor. The indemnity, contribution and reimbursement agreements contained in this Section 8 and the representations and warranties of the Company set forth in this Agreement shall remain operative and in full force and effect, regardless of (i) any investigation made by or on behalf of any Underwriter or any person controlling any Underwriter, the Company, its directors or officers or any person controlling the Company, (ii) acceptance of any Shares and payment therefor hereunder and (iii) any termination of this Agreement. A successor to any Underwriter or any person controlling any Underwriter, or to the Company, its directors or officers or any person controlling the Company, shall be entitled to the benefits of the indemnity, contribution and reimbursement agreements contained in this Section 8.

It is agreed that any controversy arising out of the operation of the interim reimbursement arrangements set forth in the second paragraph of this Section 8, including the amounts of any requested reimbursement payments and the method of determining such amounts, shall be settled by arbitration conducted pursuant to the Code of Arbitration Procedure of FINRA. Any such arbitration must be commenced by service of a written demand for arbitration or written notice of intention to arbitrate, therein electing the arbitration tribunal. In the event the party demanding arbitration does not make such designation of an arbitration tribunal in such demand or notice, then the party responding to said demand or notice is authorized to do so. Such arbitration would be limited to the operation of the interim reimbursement provisions contained in the second and fourth paragraphs of this Section 8, and would not resolve the ultimate propriety or enforceability of the obligation to reimburse expenses that is created by the provisions of the second paragraph of this Section 8.

9. Conditions of Underwriters' Obligations. The several obligations of the Underwriters to purchase the Firm Shares hereunder are subject to the following conditions:

(a) All filings required by Rules 424(b), 430B and 462 under the Act shall have been timely made.

(b) You shall be reasonably satisfied that since the respective dates as of which information is given in the Registration Statement, the Time of Sale Information and Prospectus, (i) there shall not have been any change in the capital stock of the Company (other than (A) the grant of additional awards under equity incentive plans, (B) changes in the number of shares of outstanding Common Stock due to the issuance of shares upon exercise or conversion of securities exercisable for, or convertible into, Common Stock outstanding on the date hereof, (C) any repurchase of capital stock of the Company, (D) as a result of the sale of Shares, or (E) other than as publicly reported or announced) or any material change in the indebtedness (other than in the ordinary course of business) of the Company, (ii) except as set forth or contemplated by the Registration Statement, the Time of Sale Information or the Prospectus, no material oral or written agreement or other transaction shall have been entered into by the Company that is not in the ordinary course of business or that could reasonably be expected to result in a material reduction in the future earnings of the Company and its subsidiary, taken as a whole, (iii) no loss or damage (whether or not insured) to the property of the Company shall have been sustained that had or could reasonably be expected to have a Material Adverse Effect, (iv) no legal or governmental action, suit or proceeding affecting the Company or any of its properties that is material to the Company or that affects or could reasonably be expected to affect the transactions contemplated by this Agreement shall have been instituted or threatened and (v) there shall not have been any material change in the condition (financial or otherwise), business, management, results of operations or prospects of the Company or its subsidiary, taken as a whole, that makes it impractical or inadvisable in your judgment to proceed with the public offering or purchase of the Shares as contemplated hereby.

(c) You shall have received on the Closing Date or Additional Closing Date, as the case may be, an opinion and negative assurance letter of Orrick, Herrington & Sutcliffe LLP, counsel to the Company, in form and substance reasonably satisfactory to the Representative.

(d) You shall have received on the Closing Date or Additional Closing Date, as the case may be, an opinion of Cooley LLP, as intellectual property counsel to the Company, in form and substance reasonably satisfactory to the Representative.

(e) You shall have received on the Closing Date or Additional Closing Date, as the case may be, an opinion of Dentons US LLP, as intellectual property counsel to the Company, in form and substance reasonably satisfactory to the Representative.

(f) You shall have received on the Closing Date or Additional Closing Date, as the case may be, an opinion and negative assurance letter of Mintz, Levin, Cohn, Ferris, Glovsky & Popeo P.C., counsel for the Underwriters, in form and substance reasonably satisfactory to the Representative.

(g) You shall have received letters addressed to you and dated the date hereof and the Closing Date or the Additional Closing Date, as the case may be, from (i) the firm of EisnerAmper LLP, independent certified public accountants, each in form and substance reasonably satisfactory to the Representative.

(h) (i) No stop order suspending the effectiveness of the Registration Statement shall have been issued by the Commission and no proceedings for that purpose shall be pending or, to the knowledge of the Company, shall be threatened or contemplated by the Commission at or prior to the Closing Date or Additional Closing Date, as the case may be; (ii) no order suspending the effectiveness of the Registration Statement or the qualification or registration of the Shares under the securities or Blue Sky laws of any jurisdiction shall be in effect and no proceeding for such purpose shall be pending or, to the knowledge of the Company, threatened or contemplated by the authorities of any jurisdiction; (iii) any request for additional information on the part of the staff of the Commission or any such authorities shall have been complied with to the satisfaction of the staff of the Commission or such authorities; (iv) after the date hereof, no amendment or supplement to the Registration Statement or the Prospectus shall have been filed unless a copy thereof was first submitted to you and you did not object thereto in good faith; and (v) all of the representations and warranties of the Company contained in this Agreement shall be true and correct in all material respects (except for such representations and warranties qualified by materiality, which representations and warranties shall be true and correct in all respects) on and as of the date hereof and on and as of the Closing Date or Additional Closing Date, as the case may be, as if made on and as of the Closing Date or Additional Closing Date, as the case may be, and you shall have received a certificate, dated the Closing Date and signed by the chief executive officer of the Company (or such other officers as are acceptable to you) to the effect set forth in this Section 9(h) and in Sections 9(b) and 9(j) hereof.

(i) The Company shall not have failed in any material respect at or prior to the Closing Date or the Additional Closing Date, as the case may be, to have performed or complied with any of its agreements herein contained and required to be performed or complied with by it hereunder at or prior to the Closing Date or Additional Closing Date, as the case may be.

(j) The Company shall have furnished or caused to have been furnished to you such further certificates and documents as you shall have reasonably requested.

(k) At or prior to the Closing Date, you shall have received the written commitment Lock-Up Agreements from each of the persons and entities listed on Schedule III hereto.

(l) The Shares shall have been approved for listing on Nasdaq.

(m) At or prior to the effective date of the Registration Statement, you shall have received a letter from the Corporate Financing Department of FINRA confirming that such Department has determined to raise no objections with respect to the fairness or reasonableness of the underwriting terms and arrangements of the offering contemplated hereby.

All such opinions, certificates, letters and other documents will be in compliance with the provisions hereof only if they are reasonably satisfactory in form and substance to you and your counsel.

The several obligations of the Underwriters to purchase Additional Shares hereunder are subject to the satisfaction on and as of the Additional Closing Date of the conditions set forth in this Section 9, except that, if the Additional Closing Date is other than the Closing Date, the certificates, opinions and letters referred to in this Section 9 shall be dated as of the Additional Closing Date and the opinions called for by paragraphs (c), (d), (e) and (f) shall be revised to reflect the sale of Additional Shares.

If any of the conditions hereinabove provided for in this Section 9 shall not have been satisfied when and as required by this Agreement, this Agreement may be terminated by you by notifying the Company of such termination in writing or by telegram at or prior to such Closing Date, but you shall be entitled to waive any of such conditions.

10. Effective Date of Agreement. This Agreement shall become effective upon the execution and delivery hereof by the parties hereto; provided, however, that the provisions of Sections 7 and 8 shall survive the termination of this Agreement.

11. Defaulting Underwriters. If any one or more of the Underwriters shall fail or refuse to purchase Firm Shares that it or they have agreed to purchase hereunder, and the aggregate number of Firm Shares that such defaulting Underwriter or Underwriters agreed but failed or refused to purchase is not more than one-tenth of the aggregate number of the Firm Shares, each non-defaulting Underwriter shall be obligated, severally, in the proportion in which the number of Firm Shares set forth opposite its name in Schedule I hereto bears to the aggregate number of Firm Shares set forth opposite the names of all non-defaulting Underwriters or in such other proportion as you may specify in the Agreement Among Underwriters, to purchase the Firm Shares that such defaulting Underwriter or Underwriters agreed, but failed or refused to purchase. If any Underwriter or Underwriters shall fail or refuse to purchase Firm Shares and the aggregate number of Firm Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Firm Shares and arrangements satisfactory to you and the Company for the purchase of such Firm Shares are not made within 48 hours after such default, this Agreement will terminate without liability on the part of any non-defaulting Underwriter or the Company. In any such case that does not result in termination of this Agreement, either you or the Company shall have the right to postpone the Closing Date, but in no event for longer than seven (7) days, in order that the required changes, if any, in the Registration Statement and the Prospectus or any other documents or arrangements may be effected. Any action taken under this paragraph shall not relieve any defaulting Underwriter from liability in respect of any such default of any such Underwriter under this Agreement.

12. Termination of Agreement. This Agreement shall be subject to termination in your absolute discretion, without liability on the part of any Underwriter to the Company by notice to the Company, if prior to the Closing Date or the Additional Closing Date (if different from the Closing Date and then only as to the Additional Shares), as the case may be, in your sole judgment, (i) trading in the Company's Common Stock shall have been suspended by the Commission or Nasdaq, (ii) trading in securities generally on the New York Stock Exchange or Nasdaq shall have been suspended or materially limited, or minimum or maximum prices shall have been generally established on such exchange, or additional material governmental restrictions, not in force on the date of this Agreement, shall have been imposed upon trading in securities generally by any such exchange or by order of the Commission or any court or other governmental authority, (iii) a general moratorium on commercial banking activities shall have been declared by either federal or New York State authorities or (iv) there shall have occurred any outbreak or escalation of hostilities or other international or domestic calamity, crisis or change in political, financial or economic conditions or other material event the effect of which on the financial markets of the United States is such as to make it, in your judgment, impracticable or inadvisable to market the Shares or to enforce contracts for the sale of the Shares. Notice of such cancellation shall be promptly given to the Company and its counsel by telegraph, telecopy or telephone and shall be subsequently confirmed by letter.

13. Information Furnished by the Underwriters. The Company acknowledges that the tenth, eleventh, twelfth, fourteenth and fifteenth paragraphs under the caption "Underwriting" in any Preliminary Prospectus constitute the only information furnished by or on behalf of the Underwriters through you or on your behalf as such information is referred to in Sections 6(c), 6(e), 6(f) and 8 hereof.

14. Miscellaneous. Except as otherwise provided in Sections 5 and 12 hereof, notice given pursuant to any of the provisions of this Agreement shall be in writing and shall be delivered

(i) to the Company

Catalyst Biosciences, Inc.
611 Gateway Blvd., Suite 710
South San Francisco, CA 94080
Attn: Nassim Usman, Ph.D.

with a copy to

Orrick, Herrington & Sutcliffe LLP
51 West 52nd Street
New York, NY 10019
Attention: Stephen Thau, Esq.

(ii) to the Underwriters

Raymond James & Associates, Inc.
880 Carillon Parkway
St. Petersburg, Florida 33716
Attention: General Counsel

with a copy to

Mintz, Levin, Cohn, Ferris, Glovsky & Popeo P.C.
666 Third Avenue
New York, New York 10017
Attention: Ivan K. Blumenthal, Esq.

This Agreement has been and is made solely for the benefit of the several Underwriters, the Company and its directors and officers.

15. Applicable Law; Counterparts. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without reference to choice of law principles thereunder.

This Agreement may be signed in various counterparts, which together shall constitute one and the same instrument.

This Agreement shall be effective when, but only when, at least one counterpart hereof shall have been executed on behalf of each party hereto.

The Company and the Underwriters each hereby irrevocably waive any right they may have to a trial by jury in respect to any claim based upon or arising out of this Agreement or the transactions contemplated hereby.

16. No Fiduciary Duty. Notwithstanding any pre-existing relationship, advisory or otherwise, between the parties or any oral representations or assurances previously or subsequently made by any of the Underwriters, the Company acknowledges and agrees that (i) nothing herein shall create a fiduciary or agency relationship between the Company, on the one hand, and the Underwriters, on the other hand; (ii) the Underwriters have been retained solely to act as underwriters and are not acting as advisors, expert or otherwise, to either the Company in connection with this offering, the sale of the Shares or any other services the Underwriters may be deemed to be providing hereunder, including, without limitation, with respect to the public offering price of the Shares; (iii) the relationship between the Company, on the one hand, and the Underwriters, on the other hand, is entirely and solely commercial, and the price of the Shares was established by the Company and the Underwriters based on discussions and arms' length negotiations and the Company understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (iv) any duties and obligations that the

Underwriters may have to the Company shall be limited to those duties and obligations specifically stated herein; and (v) notwithstanding anything in this Agreement to the contrary, the Company acknowledges that the Underwriters may have financial interests in the success of the offering that are not limited to the difference between the price to the public and the purchase price paid to the Company for the shares and such interests may differ from the interests of the Company, and the Underwriters have no obligation to disclose, or account to the Company for any benefit they may derive from such additional financial interests. The Company hereby waives and releases, to the fullest extent permitted by the applicable law, any claims it may have against the Underwriters with respect to any breach or alleged breach of fiduciary duty and agrees that the Underwriters shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company or any of its shareholders, managers, employees or creditors.

17. Research Analyst Independence. The Company acknowledges that (a) the Underwriters' research analysts and research departments are required to be independent from their respective investment banking divisions and are subject to certain regulations and internal policies and (b) the Underwriters' research analysts may hold views and make statements or investment recommendations and/or publish research reports with respect to the Company, the value of the Common Stock and/or the offering that differ from the views of their respective investment banking divisions. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that it may have against the Underwriters with respect to any conflict of interest that may arise from the fact that the views expressed by the Underwriters' independent research analysts and research departments may be different from or inconsistent with the views or advice communicated to the Company by any Underwriter's investment banking division. The Company acknowledges that each of the Underwriters is a full service securities firm and as such, from time to time, subject to applicable securities laws, may effect transactions for its own account or the account of its customers and hold long or short positions in debt or equity securities of the companies that are the subject of the transactions contemplated by this Agreement.

Please confirm that the foregoing correctly sets forth the agreement among the Company and the several Underwriters.

Very truly yours,

CATALYST BIOSCIENCES, INC.

/s/ Nassim Usman

President and Chief Executive Officer

CONFIRMED as of the date first above mentioned, on behalf of the Representative and the other several Underwriters named in Schedule I hereto.

RAYMOND JAMES & ASSOCIATES, INC.

By: /s/ Ed Newman

Authorized Representative

SCHEDULE I

<u>Name</u>	<u>Number Firm Shares</u>
Raymond James & Associates, Inc.	3,138,462
JonesTrading Institutional Services LLC	553,847
Chardan Capital Markets, LLC	461,538
LifeSci Capital, LLC	461,538
Total:	

SCHEDULE II

Pricing Information

Price per share to the public: \$6.50

Firm Shares: 4,615,385

Additional Shares: 692,307

SCHEDULE III

Persons Subject to Lock-up

Nassim Usman, Ph.D.
Howard Levy, M.B.B.Ch., Ph.D., M.M.M.
Augustine Lawlor
Andrea Hunt
Eddie Williams
Errol B. De Souza
Jeff Himawan, Ph.D.
John P. Richard
Geoffrey Ling, M.D., Ph.D.
Sharon Tetlow

EXHIBIT A

Form of Lock-up Agreement

February , 2020

Catalyst Biosciences, Inc.
611 Gateway Boulevard, Suite 710
South San Francisco, California 94080

RAYMOND JAMES & ASSOCIATES, INC.
As Representative of the Several Underwriters
c/o Raymond James & Associates, Inc.
277 Park Avenue, Suite 410
New York, New York 10172

Re: Catalyst Biosciences, Inc. (the “Company”) — Restriction on Stock Sales

Dear Sirs and Madams:

This letter is delivered to you pursuant to the Underwriting Agreement (the “Underwriting Agreement”) to be entered into by the Company, as issuer, and Raymond James & Associates, Inc., the representative (the “Representative”) of certain underwriters (the “Underwriters”) to be named therein. Upon the terms and subject to the conditions of the Underwriting Agreement, the Underwriters intend to effect a public offering (the “Offering”) of common stock, par value \$0.001 per share (“Common Stock”), of the Company as described in and contemplated by the registration statement of the Company on Form S-3, File No. 333-228970 (the “Registration Statement”), as filed with the Securities and Exchange Commission (“SEC”) on December 21, 2018.

The undersigned recognizes that it is in the best financial interests of the undersigned, as an officer or director, or an owner of stock, options, warrants or other securities of the Company (the “Company Securities”), that the Company complete the proposed Offering.

The undersigned further recognizes that the Company Securities held by the undersigned are, or may be, subject to certain restrictions on transferability, including those imposed by United States federal securities laws. Notwithstanding these restrictions, the undersigned has agreed to enter into this letter agreement to further assure the Underwriters that the Company Securities of the undersigned, now held or hereafter acquired, will not enter the public market at a time that might impair the underwriting effort.

Therefore, as an inducement to the Underwriters to execute the Underwriting Agreement, the undersigned hereby acknowledges and agrees that the undersigned will not (i) offer, sell, contract to sell, pledge, grant any option to purchase or otherwise dispose of (collectively, a "Disposition") any Company Securities, or any securities convertible into or exercisable or exchangeable for, or any rights to purchase or otherwise acquire, any Company Securities held by the undersigned or acquired by the undersigned after the date hereof, or that may be deemed to be beneficially owned by the undersigned (collectively, the "Lock-Up Shares"), pursuant to the rules and regulations promulgated under the Securities Act of 1933, as amended (the "Act"), and the Securities Exchange Act of 1934, as amended (the "Exchange Act"), for a period commencing on the date hereof and ending 90 days after the date set forth on the cover of the Company's Prospectus first filed pursuant to Rule 424(b) under the Act, inclusive (the "Lock-Up Period"), without the prior written consent of the Representative or (ii) exercise or seek to exercise or effectuate in any manner any rights of any nature that the undersigned has or may have hereafter to require the Company to register under the Act the undersigned's sale, transfer or other disposition of any of the Lock-Up Shares or other securities of the Company held by the undersigned, or to otherwise participate as a selling securityholder in any manner in any registration effected by the Company under the Act, including under the Registration Statement, during the Lock-Up Period. The foregoing restrictions are expressly agreed to preclude the undersigned from engaging in any hedging, collar (whether or not for any consideration) or other transaction that is designed to or reasonably expected to lead or result in a Disposition of Lock-Up Shares during the Lock-Up Period, even if such Lock-Up Shares would be disposed of by someone other than such holder. Such prohibited hedging or other transactions would include any short sale or any purchase, sale or grant of any right (including any put or call option or reversal or cancellation thereof) with respect to any Lock-Up Shares or with respect to any security (other than a broad-based market basket or index) that includes, relates to or derives any significant part of its value from Lock-Up Shares.

Notwithstanding the agreement not to make any Disposition during the Lock-Up Period, you have agreed that the foregoing restrictions shall not apply to:

- (1) any transfers made by the undersigned (a) as a bona fide gift to any member of the immediate family (as defined below) of the undersigned or to a trust the direct or indirect beneficiaries of which are exclusively the undersigned or members of the undersigned's immediate family, (b) by will or intestate succession upon the death of the undersigned, or (c) as a bona fide gift to a charity or educational institution;
- (2) if the undersigned is affiliated with a corporation, partnership, limited liability company or other business entity, any transfers by such corporation, partnership, limited liability company or other business entity to any current or former stockholder, partner (which for additional clarity, includes limited partners) or member of, or owner of a similar equity interest in, the undersigned, as the case may be, (including, for the avoidance of doubt, a fund managed by the same manager or managing member or general partner or management company or by an entity controlling, controlled by, or under common control with such manager or managing member or general partner or management company as the undersigned or who shares a common investment advisor with the undersigned) if, in any such case, such transfer is not for value;

- (3) if the undersigned is affiliated with a corporation, partnership, limited liability company or other business entity, any transfer made by such corporation, partnership, limited liability company or other business entity (a) in connection with the sale or other bona fide transfer in a single transaction of all or substantially all of the capital stock, partnership interests, membership interests or other similar equity interests, as the case may be, or all or substantially all of the assets, of such corporation, partnership, limited liability company or other business entity, in any such case not undertaken for the purpose of avoiding the restrictions imposed by this agreement or (b) to another corporation, partnership, limited liability company or other business entity so long as the transferee is an affiliate (as defined below) of such corporation, partnership, limited liability company or other business entity and such transfer is not for value;
- (4) if the undersigned holds securities of the Company in a trust, transfers to the settlor or beneficiary of such trust or to the estate of a beneficiary of such trust;
- (5) transactions relating to (i) shares of Common Stock acquired by the undersigned in the Offering and (ii) Company Securities convertible into or exercisable or exchangeable for Common Stock acquired in open market transactions after completion of the Offering, provided that no filing under Section 13(d) or Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales of Company Securities acquired by you in the Offering or in such open market transactions during the Lock-Up Period;
- (6) the entry, by the undersigned, at any time on or after the date of the Underwriting Agreement, of any trading plan providing for the sale of Company Securities by the undersigned, which trading plan meets the requirements of Rule 10b5-1 under the Exchange Act, provided, however, that such plan does not provide for, or permit, the sale of any Company Securities during the Lock-Up Period and no public announcement or filing is voluntarily made or required regarding such plan during the Lock-Up Period;
- (7) sales of Company Securities pursuant to any contract, instruction or trading plan pursuant to Rule 10b5-1 under the Exchange Act established before the date of the Underwriting Agreement;
- (8) any transfers made by the undersigned to the Company to satisfy tax withholding obligations pursuant to the Company's equity incentive plans or arrangements disclosed in the Prospectus in connection with the vesting or exercise of the Company Securities issued pursuant to such plan or arrangements;

- (9) the transfer of shares of Common Stock or any security convertible into or exercisable or exchangeable for Common Stock pursuant to a liquidation, tender offer, merger, consolidation, binding share exchange or other similar transaction involving a change in control of the Company that results in all of the Company's stockholders having the right to exchange their Common Stock for cash, securities or other property; provided that if such transaction is not consummated, any such securities shall remain subject to the restrictions set forth in this letter agreement;
- (10) any transfers of securities of the Company pursuant to a court order or settlement agreement related to the distribution of assets in connection with the dissolution of marriage or civil union; and
- (11) the exercise of any option, warrant or other right to acquire shares of Common Stock, the settlement of any stock-settled stock appreciation rights, restricted stock or restricted stock units, including through a "net" or cashless exercise, granted and outstanding as of the date hereof or at the closing date of this Offering, or the conversion or redemption for cash of any convertible security of the Company in accordance with its terms;

provided, however, that (A) in the case of any transfer described in clause (1), (2), (3), (4), (9) or (10) above, it shall be a condition to the transfer that the transferee executes and delivers to the Representative, not later than one business day prior to such transfer, a written agreement, in substantially the form of this agreement (it being understood that any references to "immediate family" in the agreement executed by such transferee shall expressly refer only to the immediate family of the undersigned and not to the immediate family of the transferee) and otherwise satisfactory in form and substance to the Representative, and (B) in the case of any transfer described in clause (1), (2), (3), (4), (7), (8), or (10) above, if the undersigned is required to file a report under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock during the Lock-Up Period, the undersigned shall include a statement in such report to the effect that, (i) in the case of any transfer pursuant to clause (1) above, such transfer is being made as a gift or by will or intestate succession, (ii) in the case of any transfer pursuant to clause (2) above, such transfer is being made to a stockholder, partner or member of, or owner of a similar equity interest in, the undersigned and is not a transfer for value, (iii) in the case of any transfer pursuant to clause (3) above, such transfer is being made either (a) in connection with the sale or other bona fide transfer in a single transaction of all or substantially all of the undersigned's capital stock, partnership interests, membership interests or other similar equity interests, as the case may be, or all or substantially all of the undersigned's assets or (b) to another corporation, partnership, limited liability company or other business entity that is an affiliate of the undersigned and such transfer is not for value or, in the case of any transfer pursuant to clause (4) above, such transfer is being made to a beneficiary of the undersigned and is not a transfer for value, and (iv) in the case of any transfer pursuant to clause (7) above, such transfer is being made pursuant to a trading plan that meets the requirements of Rule 10b5-1(c) under the Exchange Act, or, in the case of any transfer pursuant to clause (8) above, such transfer is being made to

satisfy tax withholding obligations, or, in the case of any transfer pursuant to clause (9) above, that such transfer is being made pursuant to a change in control transaction, or, in the case of any transfer pursuant to clause (10) above, such transfer is being made pursuant to a court order or settlement agreement related to the distribution of assets in connection with the dissolution of marriage or civil union. For purposes of clause (8), "change in control" shall mean the transfer (whether by tender offer, merger, consolidation or similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an Underwriter of the Offering), of the Company's voting securities if, after such transfer, such person or group of affiliated persons would hold more than 50% of the outstanding voting securities of the Company (or the surviving entity). For purposes of this paragraph, "immediate family" shall mean a spouse, child, grandchild or other lineal descendant (including by adoption), father, mother, brother or sister of the undersigned; and "affiliate" shall have the meaning set forth in Rule 405 under the Act.

It is understood that, (i) if the Company notifies the Representative or the Representative notifies the Company in writing that such party does not intend to proceed with the Offering, (ii) if the Underwriting Agreement is not executed by February 28, 2020, (iii) if the Company files an application with the SEC to withdraw the Registration Statement or (iv) if the Underwriting Agreement (other than the provisions thereof that survive termination) shall terminate or be terminated for any reason prior to payment for and delivery of the Common Stock to be sold thereunder, this letter agreement shall immediately be terminated and the undersigned shall automatically be released from all of his or her obligations under this letter agreement.

In furtherance of the foregoing, the Company and its transfer agent and registrar are hereby authorized to decline to make any transfer of Lock-Up Shares if such transfer would constitute a violation or breach of this letter. This letter shall be binding on the undersigned and the respective successors, heirs, personal representatives and assigns of the undersigned. Capitalized terms used but not defined herein have the respective meanings assigned to such terms in the Underwriting Agreement.

Very truly yours,

(Name)

(Signature)



Orrick, Herrington & Sutcliffe LLP
51 West 52nd Street
New York, NY 10019-6142

+1 212 506 5000

orrick.com

February 13, 2020

Catalyst Biosciences, Inc.
611 Gateway Blvd., Suite 710
South San Francisco, CA 94080

Re: 5,307,692 Shares of Common Stock of Catalyst Biosciences, Inc.

Ladies and Gentlemen:

We have acted as counsel for Catalyst Biosciences, Inc., a Delaware corporation (the "Company"), in connection with the offering by the Company of up to 5,307,692 shares of the Company's common stock, par value \$0.001 (the "Shares"), including up to 692,307 Shares that may be sold pursuant to the exercise of an option to purchase additional shares, pursuant to a registration statement on Form S-3 (Registration Statement No. 333-228970) (the "Registration Statement"), filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"), the prospectus dated February 14, 2019 (the "Base Prospectus"), and the prospectus supplement dated February 13, 2020, filed with the Commission pursuant to Rule 424(b) of the rules and regulations of the Act (the "Prospectus Supplement"). The Base Prospectus and the Prospectus Supplement are collectively referred to as the "Prospectus." The Shares are to be sold by the Company in the manner described in the Registration Statement and the Prospectus.

In connection with rendering this opinion, we have examined and relied upon originals or copies, certified or otherwise identified to our satisfaction, of (i) the Fourth Amended and Restated Certificate of Incorporation of the Company, as amended through the date hereof, (ii) the Bylaws of the Company, as amended through the date hereof, (iii) certain resolutions of the Board of Directors and Financing Committee of the Company relating to the issuance, sale and registration of the Shares, (iv) the Registration Statement, (v) the Prospectus and (vi) such corporate records of the Company, certificates of public officials, officers of the Company and other persons, and such other documents, agreements and instruments as we have deemed relevant and necessary or appropriate as a basis for the opinion set forth below.

Catalyst Biosciences, Inc.
February 13, 2020
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In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as facsimile, electronic, certified or photostatic copies, and the authenticity of the originals of such copies. In making our examination of documents executed or to be executed, we have assumed that the parties thereto, other than the Company, had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and the execution and delivery by such parties of such documents and the validity and binding effect thereof on such parties. As to any facts material to the opinions expressed herein that we did not independently establish or verify, we have relied upon statements and representations of officers and other representatives of the Company and others and of public officials.

Based upon the foregoing and subject to the limitations, qualifications and assumptions set forth herein, we are of the opinion that the Shares have been duly authorized and, upon issuance, delivery and payment therefor in the manner contemplated by the Registration Statement and the Prospectus, will be validly issued, fully paid and non-assessable.

The opinion expressed herein is limited to the General Corporation Law of the State of Delaware and the federal laws of the United States of America, and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdictions.

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

Very truly yours,

/s/ Orrick, Herrington & Sutcliffe LLP

ORRICK, HERRINGTON & SUTCLIFFE LLP



Catalyst Biosciences Announces Proposed Public Offering of Common Stock

SOUTH SAN FRANCISCO, Calif., Feb. 12, 2020 — Catalyst Biosciences, Inc. (NASDAQ:CBIO), a clinical-stage biopharmaceutical company developing novel treatments for hemophilia and other rare bleeding disorders, (the Company), today announced that it is offering shares of its common stock in an underwritten public offering. The offering is subject to market and other conditions, and there can be no assurance as to whether or when the offering may be completed, or as to the actual size or terms of the offering. In addition, the Company expects to grant the underwriters of the offering a 30-day option to purchase up to an additional 15% of the number of shares of common stock offered in the public offering. All of the shares in the offering are being offered by the Company.

The Company anticipates using the net proceeds from this offering for general corporate purposes, which may include clinical and manufacturing activities for Marzeptacog alfa and dalcinonacog alfa, research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs.

Raymond James & Associates, Inc. is acting as the sole book-running manager for the proposed offering.

A “shelf” registration statement on Form S-3 (File No. 333-228970) relating to the public offering of the shares of common stock described above was previously filed with and declared effective by the Securities and Exchange Commission (SEC) on February 14, 2019. A preliminary prospectus supplement and accompanying prospectus relating to the offering will be filed with the SEC and will be available on the SEC’s web site at www.sec.gov. When available, copies of the preliminary prospectus supplement and accompanying prospectus may also be obtained from Raymond James & Associates, Inc., Attention: Equity Syndicate, 880 Carillon Parkway, St. Petersburg, Florida 33716, by telephone at (800) 248-8863, by e-mail at prospectus@raymondjames.com.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy any of the securities described herein. There shall not be any offer, solicitation of an offer to buy, or sale of securities in any state or jurisdiction in which such an offering, solicitation, or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

About Catalyst

Catalyst is a clinical-stage biopharmaceutical company which is focused on addressing unmet needs in rare diseases and systemic complement mediated disorders. Our protease engineering platform includes development programs in hemophilia and a research program on subcutaneous systemic complement inhibitors. Our engineered coagulation factors are designed to overcome the significant limitations of current IV treatment options, facilitate prophylaxis, and ultimately deliver substantially better outcomes for patients using SQ dosing. Our lead asset, MarZAA, has completed Phase 2 development having met its primary endpoint of significantly reducing the annualized bleed rate (ABR) in individuals with hemophilia A or B with inhibitors. Our second hemophilia asset, DalcA, is in a Phase 2b clinical trial and is being developed for the treatment of hemophilia B. We also have a global license and collaboration agreement with Biogen for the development and commercialization of pegylated CB 2782 for the potential treatment of geographic atrophy associated dry age-related macular degeneration.

Forward-Looking Statements

This press release contains forward-looking statements that involve substantial risks and uncertainties. All statements pertaining to the Company's expectations regarding the intention to conduct an offering and sale of securities, ability to complete the offering and expected use of proceeds described in this press release constitute forward-looking statements. All statements, other than statement of historical facts (including, but not limited to, statements that contain words such as "will," "believes," "plans," "anticipates," "expects," "estimates") are forward-looking statements. Actual results or events could differ materially from the plans, intentions, expectations and projections disclosed in the forward-looking statements. Various important factors could cause actual results or events to differ materially from the forward-looking statements that the Company makes, including, but not limited to, uncertainties related to market conditions and the completion of the public offering on the anticipated terms or at all and other risks described the "Risk Factors" sections of the Company's most recent annual report filed with the SEC on March 8, 2019, quarterly report filed with the SEC on November 7, 2019, the prospectus supplement related to the public offering and in other filings with the SEC. The Company does not assume any obligation to update any forward-looking statements, except as required by law.

Contact:

Ana Kapor
Catalyst Biosciences, Inc.
investors@catbio.com



Catalyst Biosciences Announces Pricing of Public Offering of Common Stock

SOUTH SAN FRANCISCO, Calif., Feb. 13, 2020 — Catalyst Biosciences, Inc. (NASDAQ:CBIO), a clinical-stage biopharmaceutical company developing novel treatments for hemophilia and other rare bleeding disorders, (the Company), today announced the pricing of an underwritten public offering of 4,615,385 shares of its common stock, offered at a price of \$6.50 per share to the public. Additionally, the Company has granted the underwriters a 30-day option to purchase up to an additional 692,307 shares of its common stock. All of the shares in the offering are being offered by the Company. The offering is expected to close on or about February 18, 2020, subject to customary closing conditions.

The gross proceeds to the Company from this offering are expected to be approximately \$30 million, before deducting underwriting discounts and commissions and other estimated offering expenses payable by the Company. This amount assumes no exercise of the underwriters' option.

The Company anticipates using the net proceeds from this offering for general corporate purposes, which may include clinical and manufacturing activities for Marzeptacog alfa and dalcinonacog alfa, research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs.

Raymond James & Associates, Inc. is acting as the sole book-running manager and JonesTrading Institutional Services LLC, Chardan and LifeSci Capital LLC are acting as co-managers for the offering.

A "shelf" registration statement on Form S-3 (File No. 333-228970) relating to the public offering of the shares of common stock described above was previously filed with and declared effective by the Securities and Exchange Commission (SEC) on February 14, 2019. A preliminary prospectus supplement and accompanying prospectus relating to the offering have been filed with the SEC and are available on the SEC's web site at www.sec.gov. Copies of the preliminary prospectus supplement and accompanying prospectus, and when available, copies of the final prospectus supplement and accompanying prospectus may also be obtained from Raymond James & Associates, Inc., Attention: Equity Syndicate, 880 Carillon Parkway, St. Petersburg, Florida 33716, by telephone at (800) 248-8863, by e-mail at prospectus@raymondjames.com.

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Catalyst is a clinical-stage biopharmaceutical company which is focused on addressing unmet needs in rare diseases and systemic complement mediated disorders. Our protease engineering platform includes development programs in hemophilia and a research program on subcutaneous systemic complement inhibitors. Our engineered coagulation factors are designed to overcome the significant limitations of current IV treatment options, facilitate prophylaxis, and ultimately deliver substantially better outcomes for patients using SQ dosing. Our lead asset, MarzAA, has completed Phase 2 development having met its primary endpoint of significantly reducing the annualized bleed rate (ABR) in individuals with hemophilia A or B with inhibitors. Our second hemophilia asset, DalcA, is in a Phase 2b clinical trial and is being developed for the treatment of hemophilia B. We also have a global license and collaboration agreement with Biogen for the development and commercialization of pegylated CB 2782 for the potential treatment of geographic atrophy associated dry age-related macular degeneration.

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This press release contains forward-looking statements that involve substantial risks and uncertainties. All statements pertaining to the Company's expectations regarding the expected gross proceeds from the offering, the timing of completion of the offering and expected use of proceeds described in this press release constitute forward-looking statements. All statements, other than statement of historical facts (including, but not limited to, statements that contain words such as "will," "believes," "plans," "anticipates," "expects," "estimates") are forward-looking statements. Actual results or events could differ materially from the plans, intentions, expectations and projections disclosed in the forward-looking statements. Various important factors could cause actual results or events to differ materially from the forward-looking statements that the Company makes, including, but not limited to, uncertainties associated with market conditions and the satisfaction of customary closing conditions related to the offering and other risks described the "Risk Factors" sections of the Company's most recent annual report filed with the SEC on March 8, 2019, quarterly report filed with the SEC on November 7, 2019, the prospectus supplement related to the public offering and in other filings with the SEC. The Company does not assume any obligation to update any forward-looking statements, except as required by law.

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