

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

**SCHEDULE 13D/A  
Under the Securities Exchange Act of 1934  
(Amendment No. 2)\***

**ENTASIS THERAPEUTICS HOLDINGS INC.**

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(Name of Issuer)

**Common Stock, \$0.001 par value**

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(Title of Class of Securities)

**293614 103**

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(CUSIP Number)

**Pavel Raifeld  
Chief Executive Officer  
Innoviva, Inc.  
1350 Old Bayshore Highway Suite 400  
Burlingame, CA  
877-202-1097**

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(Name, Address and Telephone Number of Person Authorized to  
Receive Notices and Communications)

**August 27, 2020**

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(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

**Persons who respond to the collection of information contained in this form are  
not required to respond unless the form displays a currently valid OMB control  
number.**

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1	Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only).  <u>Innoviva, Inc.</u>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS  WC	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e)  <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER  28,000,000 (1)
	8	SHARED VOTING POWER  0
	9	SOLE DISPOSITIVE POWER  28,000,000 (1)
	10	SHARED DISPOSITIVE POWER  0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  28,000,000 (1)	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES  <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  67.8% (2)	
14	TYPE OF REPORTING PERSON  CO	

(1) Includes shares of Common Stock and warrants to purchase Common Stock acquired by the Reporting Persons on June 11, 2020.

(2) Based on 27,291,563 shares of Common Stock outstanding as of July 31, 2020, as reported by the Issuer in its Form 10-Q filed on August 6, 2020 plus warrants to purchase 14,000,000 shares of Common Stock acquired by the Reporting Persons on June 11, 2020. Does not include shares of Common Stock or warrants to purchase Common Stock to be issued by the Issuer upon the closing of the transaction described in Item 4 below.

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## **Explanatory Note**

This Amendment No. 2 (the “Amendment No. 2”) amends and supplements the initial Statement of Beneficial Ownership on Schedule 13D, as filed with the Securities and Exchange Commission on April 23, 2020, as amended by the amendment to Schedule 13D previously filed on June 11, 2020 (as amended, the “*Schedule 13D*”) with respect to shares of common stock, \$0.001 par value per share (“*Common Stock*”) of Entasis Therapeutics Holdings Inc., a Delaware corporation (the “*Issuer*”) and warrants to acquire additional shares of Common Stock of the Issuer. Innoviva, Inc. (the “*Reporting Person*”) is filing this amendment to reflect the execution of a Securities Purchase Agreement (as defined below) in respect of the acquisition of additional shares of Common Stock and Common Warrants. Except as specifically amended and supplemented by this Amendment No. 2, the Schedule 13D remains in full force and effect.

### **Item 4. Purpose of Transaction**

Item 4 in Schedule 13D is hereby supplemented as follows:

On August 27, 2020, the Issuer entered into a securities purchase agreement (the “*Securities Purchase Agreement*”) with the purchasers named therein (the “*Investors*”), including the Reporting Person, pursuant to which the Issuer agreed to issue and sell (i) an aggregate of 8,183,878 shares of Common Stock (the “*Shares*”), including 4,672,897 shares of Common Stock to be issued to the Reporting Person and (ii) warrants to purchase an aggregate of 10,507,710 shares of Common Stock (the “*Common Warrants*”), including 4,672,897 Common Warrants to be issued to the Reporting Person, with each Share and Common Warrant being issued and sold as a unit, for a per unit price of \$2.675. The aggregate purchase price expected to be paid by the Reporting Person upon the closing of the acquisition of the purchase of Shares and Common Warrants is approximately \$12,500,000. The closing of the transaction is expected to occur on September 1, 2020.

The exercise price and the number of shares of Common Stock issuable upon exercise of each Common Warrant is subject to appropriate adjustments in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting the Common Stock. Each Common Warrant issued to the Reporting Person is exercisable from the date of issuance and has a term of five years and an initial exercise price of \$2.675.

The foregoing summaries of the Securities Purchase Agreement and Common Warrants do not purport to be complete and are subject to, and qualified in their entirety by, the full text of the Securities Purchase Agreement and the form of Common Warrant, respectively, which are filed as Exhibit 6, to this Amendment No. 2 and are incorporated herein by reference.

The Reporting Person may, from time to time and at any time, either alone or together with others: (i) acquire additional Common Stock and warrants and/or other equity, debt, notes, instruments or other securities (collectively, “*Securities*”) of the Issuer in the open market or otherwise; (ii) dispose of any or all of its Securities in the open market or otherwise; or (iii) engage in any hedging or similar transactions with respect to the Securities. The Reporting Person agreed to purchase the Common Stock and Common Warrants reported in this Amendment No. 2 for investment purposes.

### **Item 5. Interest in Securities of the Issuer**

Item 5 in Schedule 13D is hereby amended and restated as follows:

The information contained in the cover paged and in Item 4 to this Schedule 13D is hereby incorporated by reference into this Item 5. The Reporting Person did not acquire or sell any shares of Common Stock or other securities of the Issuer during the last 60 days.

### **Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer**

Item 6 in Schedule 13D is hereby supplemented as follows:

The information contained above in Item 4 is hereby incorporated by reference into this Item 6.

In connection with the Securities Purchase Agreement, at the Closing the Issuer will enter into a Registration Rights Agreement (the “*Registration Rights Agreement*”) with the Investors. Pursuant to the Registration Rights Agreement, the Issuer will agree to prepare and file a registration statement with the Securities and Exchange Commission (the “*SEC*”) within 45 days after the closing for purposes of registering the resale of the Shares, the shares of Common Stock issuable upon exercise of the Common Warrants, the Common Warrants and any shares of Common Stock issued as a dividend or other distribution with respect to the Shares or shares of Common Stock issuable upon exercise of the Common Warrants.

The Issuer will also agree to use its reasonable best efforts to cause this registration statement to be declared effective by the SEC within 90 days after the closing of the Offering (or within 120 days if the SEC reviews the registration statement).

The foregoing summary of the Registration Rights Agreement does not purport to be complete and is subject to, and qualified in its entirety by, the full text of the Registration Rights Agreement, which is filed as Exhibit C to the Securities Purchase Agreement, filed as Exhibit 6 to the Amendment No. 2, and is incorporated herein by reference.

#### **Item 7. Material to Be Filed as Exhibits**

Exhibit 6 – Securities Purchase Agreement, dated as of August 27, 2020, by and among Entasis Therapeutics Holdings Inc. and the Investors named therein, including certain exhibits thereto.

**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: August 31, 2020

**INNOVIVA, INC.**

**By: /s/ Pavel Raifeld**  
**Name: Pavel Raifeld**  
**Title: Chief Executive Officer**

## SECURITIES PURCHASE AGREEMENT

This SECURITIES PURCHASE AGREEMENT (this “Agreement”) is made and entered into as of August 27, 2020 by and among Entasis Therapeutics Holdings Inc., a Delaware corporation (the “Company”), and the Investors identified on Exhibit A attached hereto (each an “Investor” and collectively the “Investors”).

### RECITALS

A. The Company and each Investor is executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the “1933 Act”), and/or Rule 506 of Regulation D (“Regulation D”) as promulgated by the United States Securities and Exchange Commission (the “SEC”) under the 1933 Act;

B. The Investors (on a several and not a joint basis) wish to purchase from the Company, and the Company wishes to sell and issue to the Investors, upon the terms and subject to the conditions stated in this Agreement, (i) shares (the “Shares”) of the Company’s Common Stock, par value \$0.001 per share (the “Common Stock”), (ii) warrants to purchase shares of Common Stock in the form attached hereto as Exhibit B-1 (each, a “Common Warrant” and collectively, the “Common Warrants”) and (iii) in lieu of Shares, pre-funded warrants to purchase shares of Common Stock in the form attached hereto as Exhibit B-2 (each, a “Pre- Funded Common Warrant” and collectively, the “Pre-Funded Common Warrants” and, together with the Common Warrants, the “Warrants”); and

C. Contemporaneously with the sale of the Shares and Warrants, the parties hereto will execute and deliver a Registration Rights Agreement, in the form attached hereto as Exhibit C (the “Registration Rights Agreement”), pursuant to which the Company will agree to provide certain registration rights in respect of the Shares and Common Warrant Shares (as defined below) under the 1933 Act, and the rules and regulations promulgated thereunder, and applicable state securities laws.

In consideration of the mutual promises made herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Definitions. For the purposes of this Agreement, the following terms shall have the meanings set forth below:

“Affiliate” means, with respect to any Person, any other Person which directly or indirectly through one or more intermediaries Controls, is controlled by, or is under common Control with, such Person; provided, that for purposes of this Agreement, neither Purchaser nor any of their respective Affiliates shall be deemed to be an Affiliate of the Company or any of its Subsidiaries.

“Business Day” means a day, other than a Saturday or Sunday, on which banks in New York City are open for the general transaction of business.

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“Closing” has the meaning set forth in Section 3.1.

“Closing Date” has the meaning set forth in Section 3.1.

“Closing Securities” means the Shares and the Warrants.

“Common Warrants” has the meaning set forth in the Recitals.

“Common Warrant Shares” means the Shares of Common Stock Issuable upon exercise of the Common Warrants.

“Company’s Knowledge” means the actual knowledge of the executive officers (as defined in Rule 405 under the 1933 Act) of the Company.

“Control” (including the terms “controlling”, “controlled by” or “under common control with”) means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

“Disclosure Schedules” has the meaning set forth in Section 4.

“Environmental Laws” has the meaning set forth in Section 4.16.

“FDA” has the meaning set forth in Section 4.27.

“GAAP” has the meaning set forth in Section 4.18.

“Intellectual Property” means all patents, patent applications, trademarks, trademark applications, service marks, trade names, copyrights, trade secrets, licenses, domain names, information and proprietary rights and processes.

“Investor Questionnaire” has the meaning set forth in Section 3.1.

“Material Adverse Effect” means a material adverse effect on (i) the assets, liabilities, results of operations, financial condition or business of the Company and its Subsidiaries taken as a whole, (ii) the legality or enforceability of any of the Transaction Documents or (iii) the ability of the Company to perform its obligations under the Transaction Documents.

“Material Contract” means any contract, instrument or other agreement to which the Company is a party or by which it is bound which is material to the business of the Company, including those that have been filed as an exhibit to the SEC Filings pursuant to Item 601(b)(10) of Regulation S-K.

“Nasdaq” means The Nasdaq Global Market.

“Person” means an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, sole proprietorship, unincorporated organization, governmental authority or any other form of entity not specifically listed herein.

“Placement Agents” means Cantor Fitzgerald & Co. and A.G.P. / Alliance Global Partner.

“Pre-Funded Common Warrants” has the meaning set forth in the Recitals.

“Pre-Funded Common Warrant Shares” means the shares of Common Stock issuable upon exercise of the Pre-Funded Common Warrants.

“Press Release” has the meaning set forth in Section 9.7.

“Registration Rights Agreement” has the meaning set forth in the Recitals.

“Rule 144” has the meaning set forth in Section 7.5.

“SEC Filings” has the meaning set forth in Section 4.

“Securities” means the Shares, the Warrants and the Warrant Shares.

“Selling Stockholder Questionnaire” has the meaning set forth in Section 3.1.

“Shares” has the meaning set forth in the Recitals.

“Short Sales” means all “short sales” as defined in Rule 200 of Regulation SHO under the 1934 Act (but shall not be deemed to include the location and/or reservation of borrowable shares of Common Stock).

“Subscription Amount” means, as to an Investor, the aggregate amount to be paid for the Closing Securities purchased hereunder as specified opposite such Investor’s name on Exhibit A attached hereto, under the column entitled “Aggregate Purchase Price of Closing Securities,” in U.S. Dollars and in immediately available funds.

“Subsidiaries” has the meaning set forth in Section 4.1.

“Trading Day” means a day on which Nasdaq is open for trading.

“Transfer Agent” has the meaning set forth in Section 7.5.

“Transaction Documents” means this Agreement, the Warrants and the Registration Rights Agreement.

“Warrants” has the meaning set forth in the Recitals.

“Warrant Shares” means the shares of Common Stock issuable upon exercise of the Warrants.

“1933 Act” has the meaning set forth in the Recitals.

“1934 Act” means the Securities Exchange Act of 1934, as amended, or any successor statute, and the rules and regulations promulgated thereunder.

2. Purchase and Sale of the Shares and Warrants. On the Closing Date, upon the terms and subject to the conditions set forth herein, the Company will issue and sell, and the Investors will purchase, severally and not jointly, (i) the number of Shares set forth opposite the name of such Investor under the heading “Number of Shares to be Purchased” on Exhibit A attached hereto, at a price per Share equal to \$2.675, (ii) the number of Common Warrants set forth opposite the name of such Investor under the heading “Number of Common Warrants to be Purchased” on Exhibit A attached hereto, each with an exercise price equal to \$2.675 per Common Warrant Share (subject to adjustment as provided therein) and (iii) in lieu of Shares, the number of Pre-Funded Common Warrants set forth opposite the name of such Investor under the heading “Number of Pre-Funded Common Warrants to be Purchased” on Exhibit A attached hereto, each with an exercise price of \$0.001 per Pre-Funded Common Warrant Share (subject to adjustment as provided herein) and at a purchase price of \$2.675 per Pre-Funded Common Warrant.

3. Closing.

3.1. The closing of the purchase and sale of the Closing Securities (which Closing Securities are set forth in the Schedule of Investors) pursuant to this Agreement (the “Closing”) shall be held on the second Business Day after satisfaction or waiver of the conditions set forth in Section 6.1 and Section 6.2 (other than those conditions that by their terms are to be satisfied at the Closing, but subject to the satisfaction or waiver of those conditions) via the remote electronic exchange of documents and signatures, or on such other date and place as may be agreed to by the Company and the Investors (the “Closing Date”). At or prior to the Closing, each Investor and the Company shall execute any related agreements or other documents required to be executed hereunder, dated on or before the Closing Date, including, with respect to any Investor who has not already executed such form, the Investor Questionnaire and the Selling Stockholder Notice and Questionnaire in the forms attached hereto as Appendix I and Appendix II (the “Investor Questionnaire” and the “Selling Stockholder Questionnaire,” respectively).

3.2. On the Closing Date, each Investor shall deliver or cause to be delivered to the Company the Subscription Amount via wire transfer (less any amounts owed to such Investor pursuant to Section 9.5) of immediately available funds pursuant to the wire instructions delivered to such Investor by the Company at least two (2) Business Days prior to the Closing Date.

3.3. At or before the Closing, the Company shall deliver or cause to be delivered to each Investor (i) the number of Shares, registered in the name of the Investor in book entry form (or, at an Investor’s request, reflected by a physical stock certificate), in the amount set forth opposite the name of such Investor under the heading “Number of Shares to be Purchased” on Exhibit A attached hereto, (ii) the number of Common Warrants set forth opposite the name of such Investor under the heading “Number of Common Warrants to be Purchased” on Exhibit A attached hereto, registered in the name of the Investor and (iii) the number of Pre-Funded Common Warrants set forth opposite the name of such Investor under the heading “Number of Pre-Funded Common Warrants to be Purchase” on Exhibit A attached hereto, registered in the name of such Investor.

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4. **Representations and Warranties of the Company.** The Company hereby represents and warrants to the Investors that, except as set forth in the schedules delivered herewith (collectively, the “Disclosure Schedules”), if any, and except as otherwise described in the Company’s filings pursuant to the 1934 Act made prior to the date hereof (collectively, the “SEC Filings”) (but excluding any forward-looking disclosures set forth in any “risk factors” section, any disclosures in any “forward-looking statements” section and any other disclosures included therein to the extent they are predictive or forward-looking in nature), which qualify these representations and warranties in their entirety, as of the date hereof:

4.1. **Organization, Good Standing and Qualification.** The Company is an entity duly incorporated, validly existing and in good standing under the laws of the State of Delaware, with the requisite corporate power and authority to own or lease and use its properties and assets, to execute and deliver the Transaction Documents, to carry out the provisions of the Transaction Documents, to issue and sell the Closing Securities and to carry on its business as presently conducted and as proposed to be conducted as described in the SEC Filings. Each of the Company’s Subsidiaries required to be disclosed pursuant to Item 601(b)(21) of Regulation S-K in an exhibit to its annual report on Form 10-K filed with the SEC for the year ended December 31, 2019 (the “Subsidiaries”) is an entity duly incorporated or otherwise organized, validly existing and in good standing (to the extent such concept exists in the relevant jurisdiction) under the laws of the jurisdiction of its incorporation or organization, as applicable, and has all requisite power and authority to carry on its business to own and use its properties. Neither the Company nor any of its Subsidiaries is in violation or default of any of the provisions of its respective articles of association, charter, certificate of incorporation, bylaws, limited partnership agreement or other organizational or constitutive documents. Each of the Company and its Subsidiaries is duly qualified to do business as a foreign entity and is in good standing (to the extent such concept exists in the relevant jurisdiction) in each jurisdiction in which the conduct of its business or its ownership or leasing of property makes such qualification necessary, except to the extent any failure to so qualify has not had and would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

4.2. **Authorization.** The Company has the requisite corporate power and authority and has taken all requisite corporate action necessary for, and no further action on the part of the Company, its officers, directors and stockholders is necessary for, (i) the authorization, execution and delivery of the Transaction Documents, (ii) the authorization of the performance of all obligations of the Company hereunder or thereunder, and (iii) the authorization, issuance (or reservation for issuance) and delivery of the Closing Securities. The Company’s execution and delivery of each of the Transaction Documents and the consummation by it of the transactions contemplated hereby and thereby have been duly and validly authorized by all necessary board and stockholder action. Each of the Transaction Documents has been duly executed and delivered by the Company and, assuming due authorization, execution and delivery by the Investors, constitutes valid and binding obligations of the Company enforceable in accordance with their terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application affecting enforcement of creditors’ rights, (b) general principles of equity that restrict the availability of equitable remedies and (c) to the extent that the enforceability of indemnification provisions may be limited by applicable laws.

4.3. Capitalization. Schedule 4.3 sets forth as of the date hereof (i) the authorized capital stock of the Company; (ii) the number of shares of capital stock issued and outstanding; (iii) the number of shares of capital stock issuable pursuant to the Company's stock plans; and (iv) the number of shares of capital stock issuable and reserved for issuance pursuant to securities (other than the Closing Securities, Warrant Shares and any other shares of Common Stock being issued by the Company pursuant to this Agreement) exercisable for, or convertible into or exchangeable for any shares of capital stock of the Company. All of the issued and outstanding shares of the Company's capital stock have been duly authorized and validly issued and are fully paid, nonassessable and none of such shares were issued in violation of any pre-emptive rights and such shares were issued in compliance in all material respects with applicable state and federal securities law and any rights of third parties. Except as described on Schedule 4.3, no Person is entitled to pre-emptive or similar statutory or contractual rights with respect to the issuance by the Company of any securities of the Company. Except as described on Schedule 4.3, there are no outstanding warrants, options, convertible securities or other rights, agreements or arrangements of any character under which the Company is or may be obligated to issue any equity securities of any kind and except as contemplated by this Agreement. Except as described on Schedule 4.3 and except for the Registration Rights Agreement, there are no voting agreements, buy-sell agreements, option or right of first purchase agreements or other agreements of any kind among the Company and any of the security holders of the Company relating to the securities of the Company held by them. Except as described on Schedule 4.3 and except as provided in the Registration Rights Agreement, no Person has the right to require the Company to register any securities of the Company under the 1933 Act, whether on a demand basis or in connection with the registration of securities of the Company for its own account or for the account of any other Person. The issuance and sale of the Closing Securities hereunder will not obligate the Company to issue shares of Common Stock or other securities to any other Person (other than the Investors) and will not result in the adjustment of the exercise, conversion, exchange or reset price of any outstanding security.

4.4. Valid Issuance. The Shares have been duly and validly authorized and, when issued and paid for pursuant to this Agreement, will be validly issued, fully paid and nonassessable, and shall be free and clear of all encumbrances and restrictions (other than those waived or created by the Investors), except for restrictions on transfer set forth in the Transaction Documents or imposed by applicable securities laws. The Warrants have been duly and validly authorized and, when issued and paid for pursuant to this Agreement, will be validly issued. The Warrant Shares have been duly and validly authorized and reserved for issuance and, upon exercise of the Warrants in accordance with their terms, including the payment of any exercise price therefor, will be validly issued, fully paid and nonassessable and will be free and clear of all encumbrances and restrictions (other than those created by the Investors), except for restrictions on transfer set forth in the Transaction Documents or imposed by applicable securities laws. Assuming the accuracy of the representations and warranties of the Investors in this Agreement, the Closing Securities will be issued in compliance with all applicable federal and state securities laws.

4.5. Consents. The execution, delivery and performance by the Company of the Transaction Documents and the offer, issuance and sale of the Closing Securities require no consent of, action by or in respect of, or filing with, any Person, governmental body, agency, or official other than filings that have been made pursuant to applicable state securities laws and post-sale filings pursuant to applicable state and federal securities laws and the rules and regulations of the Nasdaq Stock Market ("Nasdaq"), which the Company shall file within the applicable time periods, and other than the registration statement required to be filed by the Registration Rights Agreement, except as have already been made, obtained or waived or where the failure to obtain any such approval, authorization, consent, order or filing would not impair the ability of the Company to issue and sell the Shares or to consummate the transactions contemplated by this Agreement.

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4.6. **Delivery of SEC Filings.** True and complete copies of the SEC Filings have been made available by the Company to the Investors through the Electronic Data Gathering, Analysis, and Retrieval system (the “EDGAR System”) (other than any information for which the Company has received confidential treatment from the SEC).

4.7. **No Material Adverse Change.** Since June 30, 2020, except as specifically set forth in a subsequent SEC Filing, there has not been:

(i) any change in the assets, liabilities, financial condition or operating results of the Company from that reflected in the financial statements included in the Company’s Quarterly Report on Form 10-Q for the three months ended June 30, 2020, except for changes in the ordinary course of business which have not had and would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect;

(ii) any declaration or payment by the Company of any dividend, or any authorization or payment by the Company of any distribution, on any of the capital stock of the Company, or any redemption or repurchase by the Company of any securities of the Company;

(iii) any material damage, destruction or loss, whether or not covered by insurance, to any assets or properties of the Company;

(iv) any waiver, not in the ordinary course of business, by the Company of a material right or of a material debt owed to it;

(v) any satisfaction or discharge of a material lien, claim or encumbrance or payment of any obligation by the Company, except in the ordinary course of business;

(vi) any change or amendment to the Company’s Amended and Restated Certificate of Incorporation or Amended and Restated Bylaws, or termination of or material amendment to any contract of the Company that the Company is required to file with the SEC pursuant to Item 601(b)(10) of Regulation S-K;

(vii) any material labor difficulties or, to the Company’s Knowledge, labor union organizing activities with respect to employees of the Company;

(viii) any material transaction entered into by the Company other than in the ordinary course of business;

(ix)

1933 Act) of the Company; or

the loss of the services of any executive officer (as defined in Rule 405 under the

(x)

any other event or condition that, to the Company's Knowledge, individually or in the aggregate, has had or would reasonably be expected to have a Material Adverse Effect.

4.8.

SEC Filings. The Company has filed all reports, schedules, forms, statements and other

documents required to be filed by the Company under 1933 Act and the 1934 Act, including pursuant to Section 13(a) or 15(d) thereof, for the one year preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material). At the time of filing thereof, such SEC Filings complied as to form in all material respects with the requirements of the 1933 Act or 1934 Act, as applicable, and, as of their respective dates, did not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading.

4.9.

No Conflict, Breach, Violation or Default. The execution, delivery and performance of

the Transaction Documents by the Company and the issuance and sale of the Closing Securities in accordance with the provisions thereof will not (i) conflict with or result in a breach or violation of (a) any of the terms and provisions of, or constitute a default under, the Company's Amended and Restated Certificate of Incorporation or Amended and Restated Bylaws, both as in effect on the date hereof (true and complete copies of which have been made available to the Investors through the EDGAR system), or (b) assuming the accuracy of the representations and warranties in Section 5, any applicable statute, rule, regulation or order of any governmental agency or body or any court, domestic or foreign, having jurisdiction over the Company or its Subsidiaries, or any of their assets or properties, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any lien, encumbrance or other adverse claim upon any of the properties or assets of the Company or its Subsidiaries or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any contract or agreement to which the Company is a party, except, in the case of clauses (i)(b) and (ii) only, for such conflicts, breaches, violations and defaults as have not and would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

4.10.

Compliance. The Company is not (i) in default under or in violation of (and no event

has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company under), nor has the Company received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) in violation of any judgment, decree or order of any court, arbitrator or governmental body or (iii) in violation of any statute, rule, ordinance or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case as would not have or reasonably be expected to result in, individually or in the aggregate, a Material Adverse Effect.

4.11. **Tax Matters.** The Company and its Subsidiaries have filed all material tax returns (subject to permitted exceptions) required to have been filed by the Company or its Subsidiaries with all appropriate governmental agencies and have paid all material taxes shown thereon or otherwise owed by them, other than those being contested in good faith and for which adequate reserves have been provided. The Company has made adequate charges, accruals and reserves in the applicable financial statements referred to in Section 4.18 below in respect of all federal, state and foreign income and franchise taxes for all periods as to which the tax liability of the Company or its Subsidiaries has not been finally determined, except to the extent of any inadequacy that would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. There are no material tax liens or claims pending or, to the Company's Knowledge, threatened against the Company or any of its Subsidiaries or any of their respective assets or property.

4.12. **Title to Properties.** The Company and its Subsidiaries have good and marketable title to all real properties and all other tangible properties and assets owned by them, in each case free from liens, encumbrances and defects, except such as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect; and the Company and its Subsidiaries hold any leased real or personal property under valid, subsisting and enforceable leases with which the Company and its Subsidiaries are in compliance and with no exceptions, except such as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect and except that the enforcement thereof may be subject to (i) bankruptcy, insolvency, reorganization, receivership, moratorium, fraudulent convenience or other similar laws relating to creditor's rights generally and (ii) general principles of equity and the discretion of the court before which any proceeding therefor may be brought.

4.13. **Certificates, Authorities and Permits.** The Company and its Subsidiaries possess adequate certificates, authorities or permits issued by appropriate governmental agencies or bodies necessary to conduct the business now operated by them, except where failure to so possess would not reasonably be expected to, individually or in the aggregate, result in a Material Adverse Effect. The Company and its Subsidiaries have not received any notice of proceedings relating to the revocation or modification of any such certificate, authority or permit that, if determined adversely to the Company or its Subsidiaries, would reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

#### **4.14. Labor Matters.**

(a) Neither the Company nor its Subsidiaries are parties to or bound by any collective bargaining agreements or other agreements with labor organizations.

(b) No labor dispute before the National Labor Relations Board with the employees of the Company or any of its Subsidiaries, or with the employees of any principal supplier, manufacturer, customer or contractor of the Company, exists or, to the Company's Knowledge, is threatened or imminent that would reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(c) There are no claims pending against the Company before the Equal Employment Opportunity Commission or any other administrative body or in any court asserting any violation of Title VII of the Civil Rights Act of 1964, the Age Discrimination Act of 1967, 42 U.S.C. §§ 1981 or 1983 or any other federal, state or local law, statute or ordinance barring discrimination of employment that would reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

4.15.

Intellectual Property. The Company and its Subsidiaries own, possess, license or have other rights to use, the patents and patent applications, copyrights, trademarks, service marks, trade names, service names and trade secrets as necessary or material for use in connection with its businesses as described in the SEC Filings (collectively, the “Intellectual Property Rights”), and to the Company’s Knowledge, there are no material liens, security interests or encumbrances that have been filed against any of these Intellectual Property Rights. No actions, suits, proceedings or claims are pending, or to the Company’s Knowledge, asserted or threatened against the Company or its Subsidiaries alleging infringement of a patent or other intellectual property right of others. To the Company’s Knowledge, there is no existing infringement by another Person of any of the Intellectual Property Rights that would materially affect the use thereof by the Company. To the Company’s Knowledge, the Company is not liable for infringement with respect to any of the Company’s product candidates. To the Company’s Knowledge, the development, manufacture, sale, and any currently proposed use of any of the products, proposed products or processes of the Company referred to in the SEC Reports, in the current or proposed conduct of the business of the Company, do not currently, and will not upon commercialization, to the Company’s Knowledge, infringe any right or valid patent claim of any third party. To the Company’s Knowledge, there are no ownership rights of third parties to any Intellectual Property Rights in any field of use that is exclusively licensed to the Company, other than any licensor to the Company of such Intellectual Property Rights. To the Company’s Knowledge, no action, suit, claim or other proceeding, except for routine patent and trademark prosecution proceedings in patent offices throughout the world, is pending or threatened challenging the validity, enforceability, scope, registration, ownership or use of any of the Intellectual Property Rights. To the Company’s Knowledge, no action, suit, claim or other proceeding is pending or threatened, challenging the Company’s rights in or to any Intellectual Property Rights. The Company and its Subsidiaries have security procedures to protect the secrecy, confidentiality and value of their Intellectual Property Rights. To the Company’s Knowledge, no employee is in or has been in violation in any material respect of any term of any employment contract, invention assignment agreement, non-competition agreement, or nondisclosure agreement with a former employer, executed prior to such employee’s employment where the basis of such violation relates to such employee’s employment and such violation occurred while employed and while the contract was valid and in effect. All material licenses or other material agreements under which the Company is granted rights to Intellectual Property are, to the Company’s Knowledge, in full force and effect and, to the Company’s Knowledge, there is no material default by any other party thereto. To the Company’s Knowledge, the licensors under material licenses and other material agreements had all requisite power and authority to grant the rights to the Intellectual Property purported to be granted thereby. To the Company’s Knowledge, the consummation of the transactions contemplated hereby and by the other Transaction Documents will not result in the alteration, loss, impairment of or restriction on the Company’s or any of its Subsidiaries’ ownership or right to use any Intellectual Property that is material to the conduct of the Company’s business as now conducted.

4.16.

Environmental Matters. Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, neither the Company nor any of its Subsidiaries is in violation of any statute, rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, “Environmental Laws”), has released any hazardous substances regulated by Environmental Law on to any real property that it owns or operates, or has received any written notice or claim that it is liable for any off-site disposal or contamination pursuant to any Environmental Laws; and to the Company’s Knowledge, there is no pending or threatened investigation that would reasonably be expected to lead to such a claim.

4.17.

Legal Proceedings. There are no legal, governmental or regulatory investigations, actions, suits or proceedings, to the Company’s Knowledge, pending to which the Company or any of its Subsidiaries is or may reasonably be expected to become a party or to which any property of the Company is or may reasonably be expected to become the subject that, individually or in the aggregate, if determined adversely to the Company or its Subsidiaries, would reasonably be expected to have a Material Adverse Effect. Neither the Company nor any of its Subsidiaries, nor, to the Company’s Knowledge, any director or officer thereof (in their respective capacities as such), is or has been the subject of any action involving a judicially filed claim of violation of or liability under federal or state securities laws or a judicially filed claim of breach of fiduciary duty. There has not been, and to the Company’s Knowledge, there is not pending, any investigation by the SEC involving the Company or any current or former director or officer of the Company (in their respective capacities as such). The SEC has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any of its Subsidiaries under the 1933 Act or the 1934 Act.

4.18.

Financial Statements. The financial statements included in each SEC Filing comply in all material respects with applicable accounting requirements and the rules and regulations of the SEC with respect thereto as in effect at the time of filing (or to the extent corrected by a subsequent restatement) and present fairly, in all material respects, the financial position of the Company as of the dates shown and its results of operations and cash flows for the periods shown, subject in the case of unaudited financial statements to normal, immaterial year-end audit adjustments, and such financial statements have been prepared in conformity with United States generally accepted accounting principles applied on a consistent basis during the periods involved (“GAAP”) (except as may be disclosed therein or in the notes thereto, and except that the unaudited financial statements may not contain all footnotes required by GAAP, and, in the case of quarterly financial statements, as permitted by Form 10-Q under the 1934 Act).

4.19.

Insurance Coverage. The Company and each of the Subsidiaries maintain insurance covering their respective properties, operations, personnel and businesses as the Company reasonably deems adequate; the Company reasonably believes such insurance insures against such losses and risks in accordance with customary industry practice to protect the Company and the Subsidiaries and their respective businesses and which is commercially reasonable for the current conduct of their respective businesses; to the Company’s Knowledge, all such insurance is fully in force on the date hereof.

4.20.

Compliance with Nasdaq Continued Listing Requirements. The Company is in compliance with applicable Nasdaq continued listing requirements. There are no proceedings pending or, to the Company's Knowledge, threatened against the Company relating to the continued listing of the Common Stock on Nasdaq and the Company has not received any notice of, nor to the Company's Knowledge is there any reasonable basis for, the delisting of the Common Stock from Nasdaq.

4.21.

Brokers and Finders. Other than the Placement Agents, no Person will have, as a result of the transactions contemplated by the Transaction Documents, any valid right, interest or claim against or upon the Company or an Investor for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of the Company.

4.22.

No Directed Selling Efforts or General Solicitation. Neither the Company nor any of its Subsidiaries nor any Person acting on their behalf has conducted any general solicitation or general advertising (as those terms are used in Regulation D) in connection with the offer or sale of any of the Closing Securities.

4.23.

No Integrated Offering. Neither the Company nor any of its Subsidiaries nor any Person acting on their behalf has, directly or indirectly, made any offers or sales of any Company security or solicited any offers to buy any Company security, under circumstances that would adversely affect reliance by the Company on Section 4(a)(2) for the exemption from registration for the transactions contemplated hereby or would require registration of the Closing Securities under the 1933 Act.

4.24.

Questionable Payments. Neither the Company nor any of its Subsidiaries nor, to the Company's Knowledge, any of the current or former directors, officers, employees, agents or other Persons acting on behalf of the Company or its Subsidiaries, 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, or the OECD Convention on Bribery of Foreign Public Officials in International Business Transactions.

4.25.

Internal Controls. The Company has established and maintains disclosure controls and procedures (as defined in Rules 13a-15(c) and 15d-15(e) of the 1934 Act) for the Company and designed such disclosure controls and procedures to ensure that material information relating to the Company and required to be disclosed by the Company in the reports that it files or submits under the 1934 Act is made known to the certifying officers by others within the Company. The Company maintains a system of internal accounting controls sufficient to provide reasonable assurance 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 asset and liability accountability, and (iii) access to assets or incurrence of liabilities is permitted only in accordance with management's general or specific authorization. The Company's certifying officers have evaluated the effectiveness of the Company's controls and procedures as of the end of the period covered by the most recently filed periodic report under the 1934 Act (such date, the "Evaluation Date"). The Company presented in its most recently filed periodic report under the 1934 Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the end of the Company's most recent audited fiscal year, to the Company's Knowledge, there have been no significant deficiencies or material weaknesses detected in the Company's internal control over financial reporting (whether or not remediated) and no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company is not aware of any change in its internal control over financial reporting that has occurred during its most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company maintains a standard system of accounting established and administered in accordance with GAAP and the applicable requirements of the 1934 Act.

4.26.

Investment Company. The Company is not required to be registered as, and

immediately following the Closing will not be required to register as, an “investment company” within the meaning of the Investment Company Act of 1940, as amended.

4.27.

Tests and Preclinical and Clinical Trials. The studies, tests and preclinical and clinical trials conducted by or, to the Company’s Knowledge, on behalf of the Company were and, if still pending, are being, conducted in all material respects in accordance with the protocols submitted to the U.S. Food and Drug Administration (the “FDA”) or any foreign governmental body exercising comparable authority, procedures and controls pursuant to, where applicable, good clinical practice, informed consent and all applicable laws, regulations and requirements. The Company has filed with the FDA or other appropriate governmental entity all material required notices, and annual or other reports, including notices of adverse experiences and reports of serious and unexpected adverse experiences, related to the use of its product candidates in clinical trials. The descriptions of the studies, tests and preclinical and clinical trials conducted by or, to the Company’s Knowledge, on behalf of the Company, contained in the SEC Filings are accurate and complete in all material respects; the Company is not aware of any other studies, tests or preclinical and clinical trials, the results of which call into question the results described in the SEC Filings; and the Company has not received any notices or correspondence from the FDA, any foreign, state or local governmental body exercising comparable authority or any Institutional Review Board requiring the termination, suspension, material modification or clinical hold of any studies, tests or preclinical or clinical trials conducted by or on behalf of the Company. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable laws, rules and regulations of the FDA and any other governmental entity. The Company has not been informed by the FDA or any other governmental entity that the FDA or any other governmental entity will prohibit the testing, distribution, marketing, sale, license or use of any product proposed to be developed, produced, tested, distributed or marketed by the Company. Neither the Company nor, to the Company’s Knowledge, any of its officers or employees has committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for the FDA to invoke its policy with respect to “Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities” set forth in 56 Fed. Reg. 46191 (Sept. 10, 1991) and any amendments thereto. Neither the Company nor, to the Company’s Knowledge, any officer or employee of the Company has been convicted of any crime or engaged in any conduct that has resulted in or would reasonably be expected to result in (i) debarment under 21 U.S.C. Section 335a or any similar state law or (ii) exclusion under 42 U.S.C. Section 1320a-7 or any similar state law or regulation.

4.28.

Manipulation of Price. The Company has not taken, and, to the Company's Knowledge, no Person acting on its behalf has taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities.

4.29.

Bad Actor Disqualification. None of the Company, any predecessor or affiliated issuer

of the Company nor, to the Company's Knowledge, any director or executive officer of the Company or any promoter connected with the Company in any capacity, is subject to any of the "bad actor" disqualifications within the meaning of Rule 506(d) under the 1933 Act, except for a disqualification event covered by Rule 506(d)(2) or (d)(3).

4.30.

Foreign Corrupt Practices. Neither the Company nor its Subsidiaries has, and to the

Company's Knowledge, no agent or other person acting on behalf of the Company or its Subsidiaries has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company or its Subsidiaries (or made by any person acting on behalf of the Company or its Subsidiaries which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

4.31.

Transactions with Affiliates. No transaction with the Company required to be disclosed

in the SEC Filings pursuant to Item 404 of Regulation S-K exists as of the date hereof that has not so been disclosed.

4.32.

Health Care Laws. The Company has operated and currently is in compliance in all

material respects with all applicable Health Care Laws (defined herein), including, without limitation, the rules and regulations of the FDA, the U.S. Department of Health and Human Services Office of Inspector General, the Centers for Medicare & Medicaid Services, the Office for Civil Rights, the Department of Justice or any other governmental agency or body having jurisdiction over the Company or any of its properties, and has not engaged in activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state or federal health care program. For purposes of this Agreement, "Health Care Laws" shall mean the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the Physician Payment Sunshine Act (42 U.S.C. § 1320a-7h), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Act (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions under the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. § 1320d et seq.) ("HIPAA"), the exclusion laws (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. §§ 17921 et seq.), the patient privacy, data security and breach notification provisions under HIPAA, the Federal Food, Drug, and Cosmetic Act (21 U.S.C. §§ 301 et seq.), Medicare (Title XVIII of the Social Security Act), Medicaid (Title XIX of the Social Security Act), the regulations promulgated pursuant to such laws, and any other similar local, state or federal law and regulations. The Company has not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence, communication or notice from the FDA or any other governmental or regulatory authority alleging or asserting noncompliance with any Health Care Laws applicable to the Company. The Company is not a party to nor has any ongoing reporting obligations pursuant to any corporate integrity agreements, deferred prosecution agreements, monitoring agreements, consent decrees, settlement orders, plans of correction or similar agreements with or imposed by any governmental or regulatory authority. Neither the Company nor any of its employees, officers, directors or, to the Company's Knowledge, consultants has been excluded, suspended or debarred from participation in any U.S. state or federal health care program or human clinical research or, to the Company's Knowledge, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion.

4.33. **Stock Option Plans.** Each stock option granted by the Company under the Company's stock option plans was granted in accordance with the terms of the applicable Company stock option plan. No stock option granted under the Company's stock option plans has been backdated.

4.34. **Off Balance Sheet Arrangements.** There is no transaction, arrangement, or other relationship between the Company and an unconsolidated or other off balance sheet entity that would have or reasonably be expected to result in, individually or in the aggregate, a Material Adverse Effect.

4.35. **Acknowledgment Regarding Investors' Purchase of Closing Securities.** The Company acknowledges and agrees that each of the Investors is acting solely in the capacity of an arm's length investor with respect to the Transaction Documents and the transactions contemplated hereby and thereby. The Company further acknowledges that no Investor is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated thereby and any advice given by any Investor or any of their respective representatives or agents in connection with the Transaction Documents and the transactions contemplated thereby is merely incidental to the Investors' purchase of the Closing Securities. The Company further represents to each Investor that the Company's decision to enter into this Agreement and the other Transaction Documents has been based solely on the independent evaluation of the transactions contemplated hereby by the Company and its representatives.

4.36. **Use of Form S-3.** The Company meets the registration and transaction requirements for use of Form S-3 (including pursuant to General Instruction I.B.6 of Form S-3, as applicable) for the registration of the Shares and the Common Warrant Shares for resale by the Investors.

4.37. **Takeover Protections; Rights Agreements.** The Company and the Board of Directors of the Company have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's charter documents or the laws of its state of incorporation that is or could reasonably be expected to become applicable to any of the Investors as a result of the Investors and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including, without limitation, the Company's issuance of the Closing Securities and the Investors' ownership of the Closing Securities.

4.38. **Disclosure.** Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, the Company confirms that neither it nor, to the Company's Knowledge, any other Person acting on its behalf has provided any of the Investors with any information that it believes constitutes material, non-public information that will not otherwise be disclosed in the SEC Filings on or prior to the Closing Date. The Company understands and confirms that the Investors will rely on the foregoing representation in effecting transactions in securities of the Company.

5. **Representations and Warranties of the Investors.** Each of the Investors hereby, severally and not jointly, represents and warrants to the Company that:

5.1. **Organization and Existence.** Unless such Investor is an individual, such Investor is a validly existing corporation, limited partnership or limited liability company and has all requisite corporate, partnership or limited liability company power and authority to enter into and consummate the transactions contemplated by the Transaction Documents and to carry out its obligations hereunder and thereunder, and to invest in the Securities pursuant to this Agreement.

5.2. **Authorization.** The execution, delivery and performance by such Investor of the Transaction Documents to which such Investor is a party have been duly authorized and each has been duly executed and when delivered will constitute the valid and legally binding obligation of such Investor, enforceable against such Investor in accordance with their respective terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

5.3. **Purchase Entirely for Own Account.** The Securities to be received by such Investor hereunder will be acquired for such Investor's own account, not as nominee or agent, and not with a view to the resale or distribution of any part thereof in violation of the 1933 Act, and such Investor has no present intention of selling, granting any participation in, or otherwise distributing the same in violation of the 1933 Act without prejudice, however, to such Investor's right at all times to sell or otherwise dispose of all or any part of such Securities in compliance with applicable federal and state securities laws. Nothing contained herein shall be deemed a representation or warranty by any Investor to hold the Securities for any period of time. Such Investor is not a broker-dealer registered with the SEC under the 1934 Act or an entity engaged in a business that would require it to be so registered.

5.4. **Investment Experience.** Such Investor acknowledges that it can bear the economic risk and complete loss of its investment in the Securities and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment contemplated hereby.

5.5. **Disclosure of Information.** Such Investor has had an opportunity to receive, review and understand all information related to the Company requested by it and to ask questions of and receive answers from the Company regarding the Company, its business and the terms and conditions of the offering of the Securities, and has conducted and completed its own independent due diligence. Such Investor acknowledges receipt of copies of the SEC Filings. Based on the information such Investor has deemed appropriate, and without reliance upon any Placement Agent, it has independently made its own analysis and decision to enter into the Transaction Documents. Such Investor is relying exclusively on its own sources of information, investment analysis and due diligence (including professional advice it deems appropriate) with respect to the execution, delivery and performance of the Transaction Documents, the Securities and the business, condition (financial and otherwise), management, operations, properties and prospects of the Company, including but not limited to all business, legal, regulatory, accounting, credit and tax matters. Neither such inquiries nor any other due diligence investigation conducted by such Investor shall modify, limit or otherwise affect such Investor's right to rely on the Company's representations and warranties contained in this Agreement.

5.6. **Restricted Securities.** Such Investor understands that the Securities are characterized as "restricted securities" under the U.S. federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such securities may be resold without registration under the 1933 Act only in certain limited circumstances.

5.7. **Legends.** It is understood that, except as provided below, certificates evidencing the Securities may bear the following or any similar legend:

- (i) "THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND, ACCORDINGLY, MAY NOT BE TRANSFERRED UNLESS (I) SUCH SECURITIES HAVE BEEN REGISTERED FOR SALE PURSUANT TO THE SECURITIES ACT OF 1933, AS AMENDED, (II) SUCH SECURITIES MAY BE SOLD PURSUANT TO RULE 144 UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (III) THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO IT THAT SUCH TRANSFER MAY LAWFULLY BE MADE WITHOUT REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED. THESE SECURITIES ARE SUBJECT TO TRANSFER AND OTHER RESTRICTIONS SET FORTH IN A SECURITIES PURCHASE AGREEMENT, DATED AUGUST 27, 2020, COPIES OF WHICH ARE ON FILE WITH THE COMPANY. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES."
- (ii) If required by the authorities of any state in connection with the issuance of sale of the Securities, the legend required by such state authority.

5.8. Accredited Investor. At the time such Investor was offered the Closing Securities, it was and, as of the date hereof, such Investor is an “accredited investor” within the meaning of Rule 501 under the 1933 Act and has executed and delivered to the Company its Investor Questionnaire, which such Investor represents and warrants is true, correct and complete. Such Investor is a sophisticated institutional investor with sufficient knowledge, sophistication and experience in business, including transactions involving private placements in public equity, to properly evaluate the risks and merits of its purchase of the Securities. Such Investor has determined based on its own independent review and such professional advice as it deems appropriate that its purchase of the Securities and participation in the transactions contemplated by the Transaction Documents (i) have been duly authorized and approved by all necessary action and (ii) do not and will not violate or constitute a default under such Investor’s charter, bylaws or other constituent document, if applicable, under any law, rule, regulation, agreement or other obligation by which such Investor is bound.

5.9. Placement Agents. Such Investor hereby acknowledges and agrees that it has independently evaluated the merits of its decision to purchase the Securities, and that (i) no disclosure or offering document has been prepared by the Placement Agents in connection with the offer and sale of the Securities, (ii) each Placement Agent is acting solely as placement agent in connection with the execution, delivery and performance of the Transaction Documents and is not acting as an underwriter or in any other capacity and is not and shall not be construed as a fiduciary for such Investor, the Company or any other person or entity in connection with the execution, delivery and performance of the Transaction Documents, (iii) the Placement Agents and each of their respective directors, officers, employees, representatives and controlling persons have made no independent investigation with respect to the Company or the Securities or the accuracy, completeness or adequacy of any information supplied to such Investor or by the Company, (iv) the Placement Agents have not made and will not make any representation or warranty, whether express or implied, of any kind or character and have not provided any advice or recommendation in connection with the execution, delivery and performance of the Transaction Documents, and (v) the Placement Agents will not have any responsibility with respect to (a) any representations, warranties or agreements made by any person or entity under or in connection with the execution, delivery and performance of the Transaction Documents, or the execution, legality, validity or enforceability (with respect to any person) thereof, or (b) the business, affairs, financial condition, operations, properties or prospects of, or any other matter concerning the Company. On behalf of itself and its affiliates, such Investor hereby (a) acknowledges that the Placement Agents shall have no liability or obligation to the Investors or their affiliates in respect of the Transaction Documents or the transactions contemplated thereby, (b) waives any claims that it otherwise might assert against the Placement Agents in respect of the transactions contemplated by the Transaction Documents, and (c) releases the Placement Agents in respect of any losses, claims, damages, obligations, penalties, judgments, awards, liabilities, costs, expenses or disbursements related to the Transaction Documents or the transactions contemplated thereby.

5.10.

No General Solicitation. Such Investor did not learn of the investment in the Securities

as a result of any general solicitation or general advertising.

5.11.

Brokers and Finders. No Person will have, as a result of the transactions contemplated

by the Transaction Documents, any valid right, interest or claim against or upon the Company or an Investor for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of such Investor.

5.12.

Short Sales and Confidentiality Prior to the Date Hereof. Other than consummating the

transactions contemplated hereunder, such Investor has not, nor has any Person acting on behalf of or pursuant to any understanding with such Investor, directly or indirectly executed any purchases or sales, including Short Sales, of the securities of the Company during the period commencing as of the time that such Investor was first contacted by the Company, the Placement Agents or any other Person regarding the transactions contemplated hereby and ending immediately prior to the date hereof. Notwithstanding the foregoing, in the case of an Investor that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Investor's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Investor's assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement. Such Investor, its Affiliates and, to the knowledge of such Investor, authorized representatives and advisors of such Investor who are aware of the transactions contemplated hereby, maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Notwithstanding the foregoing, for avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to the identification of the availability of, or securing of, available shares to borrow in order to effect Short Sales or similar transactions in the future.

5.13.

No Government Recommendation or Approval. Such Investor understands that no

United States federal or state agency, or similar agency of any other country, has reviewed, approved, passed upon, or made any recommendation or endorsement of the Company or the purchase of the Securities.

5.14.

No Intent to Effect a Change of Control; Ownership. Such Investor has no present

intent to effect a "change of control" of the Company as such term is understood under the rules promulgated pursuant to Section 13(d) of the 1934 Act and under the rules of Nasdaq, it being understood that by virtue of its current equity ownership as set forth in the Selling Stockholder Questionnaire, Innoviva, Inc. may be deemed to control the Company. Except as set forth in its Selling Stockholder Questionnaire, as of the date hereof, neither the Investor nor any of its Affiliates is the owner of record or the beneficial owner of shares of Common Stock or securities convertible into or exchangeable for Common Stock.

5.15.

No Conflicts. The execution, delivery and performance by such Investor of the

Transaction Documents and the consummation by such Investor of the transactions contemplated hereby and thereby will not (i) result in a violation of the organizational documents of such Investor or (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture or instrument to which such Investor is a party, or (iii) result in a violation of any law, rule, regulation, order, judgment or decree (including federal and state securities laws) applicable to such Investor, except in the case of clauses (ii) and (iii) above, for such conflicts, defaults, rights or violations which would not, individually or in the aggregate, reasonably be expected to have a material adverse effect on the ability of such Investor to perform its obligations hereunder.

5.16. No Rule 506 Disqualifying Activities. Such Investor has not taken any of the actions set forth in, and is not subject to, the disqualification provisions of Rule 506(d)(1) of the 1933 Act.

5.17. Residency. Such Investor is a resident of or an entity organized under the jurisdiction specified below its address on the Schedule of Investors.

5.18. ERISA. If Investor is (1) an employee benefit plan subject to Title I of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), (2) a plan or account subject to Section 4975 of the Internal Revenue Code of 1986 (the “Code”) or (3) an entity deemed to hold “plan assets” of any such plan or account, Investor hereby represents and warrants, solely for purposes of assisting the Placement Agents in relying on the exception from fiduciary status under U.S. Department of Labor Regulations set forth in Section 29 CFR 2510.3-21(c)(1), that a fiduciary acting on its behalf is causing the Investor to enter into this Agreement and the transactions contemplated hereby and that such fiduciary:

- (i) is an entity specified in Section 29 CFR 2510.3-21(c)(1)(i)(A)-(E);
- (ii) is independent (for purposes of Section 29 CFR 2510.3-21(c)(1)) of the Placement Agents;
- (iii) is capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies, including the Investor’s transactions hereunder;
- (iv) has been advised that, with respect to the Placement Agents, neither the Placement Agents nor any of their respective Affiliates has undertaken or will undertake to provide impartial investment advice, or has given or will give advice in a fiduciary capacity, in connection with the Investor’s transactions contemplated hereby;
- (v) is a “fiduciary” under Section 3(21)(a) of ERISA or Section 4975(e)(3) of the Code, or both, as applicable, with respect to, and is responsible for exercising independent judgment in evaluating, the Investor’s transactions contemplated hereby; and
- (vi) understands and acknowledges that no fees, compensation arrangements or financial interests provided for in connection with the transactions contemplated hereby is a fee or other compensation for the provision of investment advice, and that neither the Placement Agents nor any of their respective Affiliates, nor any of their respective directors, officers, members, partners, employees, principals or agents, has received or will receive a fee or other compensation from Investor or such fiduciary for the provision of investment advice in connection with the Investor’s transactions contemplated hereby.

The Company acknowledges and agrees that the representations contained in this Section 5 shall not modify, amend or affect such Investor's right to rely on the Company's representations and warranties contained in this Agreement or any representations and warranties contained in any other Transaction Document or any other document or instrument executed and/or delivered in connection with this Agreement or the consummation of the transactions contemplated hereby.

## 6. Conditions to Closing.

### 6.1. Conditions to the Investors' Obligations. The obligation of each Investor to purchase Closing

Securities at the Closing is subject to the fulfillment to such Investor's satisfaction, on or prior to the Closing Date, of the following conditions, any of which may be waived by such Investor (as to itself only):

(i) The representations and warranties made by the Company in Section 4 hereof shall be true and correct in all material respects (except for those representations and warranties which are qualified as to materiality or by Material Adverse Effect, in which case such representations and warranties shall be true and correct in all respects) as of the date hereof and on the Closing Date, except to the extent any such representation or warranty expressly speaks as of an earlier date, in which case such representation or warranty shall be true and correct as of such earlier date. The Company shall have performed in all material respects all obligations and covenants herein required to be performed by it on or prior to the Closing Date.

(ii) The Company shall have obtained any and all consents, permits, approvals, registrations and waivers necessary for consummation of the purchase and sale of the Closing Securities and the consummation of the other transactions contemplated by the Transaction Documents, including the waiver of any applicable registration rights that could affect the rights of the Investors under the Registration Rights Agreement, all of which shall be in full force and effect.

(iii) The Company shall have executed and delivered the Registration Rights Agreement.

(iv) The Company shall have filed with Nasdaq a Notification Form: Listing of Additional Shares for the listing of the Shares and the Warrant Shares, a copy of which shall have been provided to the Investors.

(v) No judgment, writ, order, injunction, award or decree of or by any court, or judge, justice or magistrate, including any bankruptcy court or judge, or any order of or by any governmental authority, shall have been issued, and no action or proceeding shall have been instituted by any governmental authority, enjoining or preventing (or seeking to enjoin or prevent) the consummation of the transactions contemplated hereby or in the other Transaction Documents and no law shall have been enacted or made effective that makes illegal or otherwise prohibits the consummation of the transactions contemplated hereby.

(vi)

The Investors shall have received an opinion from Covington & Burling LLP, the

Company's counsel, dated as of the Closing Date, in a customary form reasonably acceptable to the Investors.

(vii)

No stop order or suspension of trading shall have been imposed by Nasdaq, the SEC

or any other governmental or regulatory body with respect to public trading in the Common Stock.

(viii)

A certificate of the Secretary of the Company (the "Secretary's Certificate"), dated as of the Closing Date, (a) certifying the resolutions adopted by the Board of Directors of the Company or a duly authorized committee thereof approving the transactions contemplated by this Agreement and the other Transaction Documents and the issuance of the Closing Securities, and (b) certifying the current versions of the Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws of the Company.

(ix)

A Lock-Up Agreement, substantially in the form of Exhibit D hereto (the "Lock-Up Agreement") executed by each executive officer and director of the Company, and each such Lock-Up Agreement shall be in full force and effect on the Closing Date.

(x)

Since the date of this Agreement, there shall not have occurred a Material Adverse

Effect.

6.2.

Conditions to Obligations of the Company. The Company's obligation to sell and issue

Closing Securities at the Closing is subject to the fulfillment to the satisfaction of the Company on or prior to the Closing Date of the following conditions, any of which may be waived by the Company:

(i)

The representations and warranties made by the Investors in Section 5 hereof shall be true and correct in all material respects (except for those representations and warranties which are qualified as to materiality, in which case such representations and warranties shall be true and correct in all respects) when made, and shall be true and correct in all material respects (except for those representations and warranties which are qualified as to materiality, in which case such representations and warranties shall be true and correct in all respects) on the Closing Date with the same force and effect as if they had been made on and as of said date.

(ii)

The Investors shall have performed in all material respects all obligations and covenants herein required to be performed by them on or prior to the Closing Date.

(iii)

Each Investor shall have executed and delivered the Registration Rights Agreement, and if required, an Investor Questionnaire and a Selling Stockholder Questionnaire.

(iv)

Any Investor purchasing Closing Securities at the Closing shall have paid in full its Subscription Amount to the Company.

### 6.3. Termination of Obligations to Effect Closing; Effects.

(i) The obligations of the Company, on the one hand, and the Investors, on the other hand, to effect the Closing shall terminate as follows:

(a) Upon the mutual written consent of the Company and an Investor (but only with respect to such Investor);

(b) By the Company if any of the conditions set forth in Section 6.2 shall have become incapable of fulfillment, and shall not have been waived by the Company; or

(c) By an Investor (with respect to itself only) if any of the conditions set forth in Section 6.1 shall have become incapable of fulfillment, and shall not have been waived by the Investor;

provided, however, that, except in the case of clause (a) above, the party seeking to terminate its obligation to effect the Closing shall not then be in breach of any of its representations, warranties, covenants or agreements contained in this Agreement or the other Transaction Documents if such breach has resulted in the circumstances giving rise to such party's seeking to terminate its obligation to effect the Closing.

(ii) In the event of a termination pursuant to this Section 6.3, written notice thereof shall be given to the other Investors by the Company and the other Investors shall have the right to terminate their obligations to effect the Closing upon written notice to the Company and the other Investors. Nothing in this Section 6.3 shall be deemed to release any party from any liability for any breach by such party of the terms and provisions of this Agreement or the other Transaction Documents or to impair the right of any party to compel specific performance by any other party of its obligations under this Agreement or the other Transaction Documents.

(iii) Upon termination of this Agreement pursuant to this Section 6.3, this Agreement shall forthwith become void (in the case of a termination with respect to only one Investor, only with respect to such Investor) and there shall be no further obligations or liabilities on the part of the Company and such Investor(s); provided, that, this Section 4, Section 9.4 through Section 9.10 and Section 9.10 shall survive the termination of this Agreement; provided further that nothing set forth in this Agreement shall relieve any party from liability for any breach of this Agreement occurring prior to such termination.

## 7. Covenants and Agreements of the Company.

7.1. Information. From the date hereof until the Closing, the Company will make reasonably available to the Investors' representatives, consultants and their respective counsels for inspection, such information and documents as the Investor reasonably requests, and will make available at reasonable times and to a reasonable extent officers and employees of the Company to discuss the business and affairs of the Company; provided, however, that in no event shall the Company be required to disclose material nonpublic information to the Investors, or to advisors to or representatives of the Investors.

7.2. Nasdaq Listing. The Company will use commercially reasonable efforts to continue the listing and trading of its Common Stock on Nasdaq and, in accordance, therewith, will use commercially reasonable efforts to comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of such market or exchange, as applicable. The provisions of this Section 7.2 shall terminate and be of no further force and effect on the date on which the Company's obligations under the Registration Rights Agreement to register or maintain the effectiveness of any registration covering the Registrable Securities (as such term is defined in the Registration Rights Agreement) shall terminate.

7.3. **Acknowledgment of Dilution.** The Company acknowledges that the issuance of the Closing Securities may result in dilution of the outstanding shares of Common Stock, which dilution may be substantial under certain market conditions. The Company further acknowledges that its obligations under the Transaction Documents, including, without limitation, its obligation to issue the Closing Securities pursuant to this Agreement, are unconditional and absolute and not subject to any right of set off, counterclaim, delay or reduction, regardless of the effect of any such dilution or any claim the Company may have against any Investor and regardless of the dilutive effect that such issuance may have on the ownership of the other stockholders of the Company.

7.4. **Form D.** The Company agrees to timely file a Form D with respect to the Securities as required under Regulation D and to provide a copy thereof, promptly upon request of an Investor.

7.5. **Removal of Legends.** In connection with any sale or disposition of the Shares or the Warrant Shares by an Investor pursuant to Rule 144 under the 1933 Act (“Rule 144”) or pursuant to any other exemption under the 1933 Act such that the purchaser acquires freely tradable shares and upon compliance by the Investor with the requirements of this Agreement, if requested by the Investor, the Company shall cause the transfer agent for the Common Stock (the “Transfer Agent”) to timely remove any restrictive legends related to such Shares or Warrant Shares, as applicable, and make a new, unlegended entry or certificate, as the case may be, for such Shares or Warrant Shares sold or disposed of without restrictive legends, provided that the Company has received customary representations and other documentation reasonably acceptable to the Company in connection therewith. Subject to receipt by the Company of customary representations and other documentation reasonably acceptable to the Company in connection therewith, upon the earliest of such time as the Shares or Warrant Shares, as applicable, (i) have been sold or transferred pursuant to an effective registration statement, (ii) have been sold pursuant to Rule 144, or (iii) are eligible for resale under Rule 144(b)(1) or any successor provision, the Company shall (A) deliver to the Transfer Agent irrevocable instructions that the Transfer Agent shall make a new, unlegended entry (or issue a new, unlegended certificate) for such Shares or Warrant Shares, and (B) cause its counsel to deliver to the Transfer Agent one or more opinions to the effect that the removal of such legends in such circumstances may be effected under the 1933 Act. The Company shall be responsible for the fees of its Transfer Agent and all DTC fees associated with such issuance. The Company acknowledges that a breach by it of its obligations under this Section 7.5 may cause irreparable harm to an Investor. Accordingly, the Company acknowledges that the remedy at law for a breach of its obligations under this Section 7.5 may be inadequate and agrees, in the event of a breach or threatened breach by the Company of the provisions of this Section 7.5, that an Investor shall be entitled, in addition to all other available remedies, to an order and/or injunction restraining any breach and requiring immediate issuance and transfer, without the necessity of showing economic loss and without any bond or other security being required.

7.6. **Reservation of Common Stock.** The Company shall take all action necessary to at all times have authorized, and reserved for the purpose of issuance from and after the Closing Date, the number of shares of Common Stock issuable upon exercise of the Warrants issued at the Closing (without taking into account any limitations on exercise of the Warrants set forth therein).

7.7. **Fees.** The Company shall be responsible for the payment of any placement agent fees, financial advisory fees, or broker's commissions (other than for Persons engaged by any Investor) relating to or arising out of the transactions contemplated hereby, including, without limitation, any fees or commissions payable to the Placement Agents.

7.8. **Subsequent Equity Sales.** From the date hereof until the later of (i) the date that is 75 days after the date of this Agreement and (ii) the date that is 30 trading days after the date that a registration statement covering the resale of the Shares and the Warrant Shares is declared effective by the SEC (the "Lock-Up Period"), neither the Company nor any Subsidiary shall issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock, except, in each case, for (i) issuances of Common Stock upon the conversion of convertible securities, including preferred stock, the exercise of options or warrants and the vesting of restricted stock outstanding on the date hereof, in each case, as included or described in the SEC Filings, (ii) the issuance of shares of Common Stock or stock options pursuant to employee benefit or equity incentive plans described in the SEC Filings, and (iii) the issuance of up to 5% of the outstanding Common Stock (measured as of the date hereof) in connection with (A) the acquisition or license of the securities, business, property, technologies or other assets of another person or entity, including pursuant to an employee benefit plan assumed by the Company or its subsidiaries in connection with such acquisition or (B) joint ventures, commercial relationships or other strategic transactions, and in the case of each of clauses (A) and (B), the filing of a registration statement with respect thereto.

7.9. **Short Sales and Confidentiality After the Date Hereof.** Each Investor covenants that neither it nor any Affiliates acting on its behalf or pursuant to any understanding with it will execute any Short Sales during the period from the date hereof until the earlier of such time as (i) after the transactions contemplated by this Agreement are first publicly announced or (ii) this Agreement is terminated in full. Except as otherwise required by law, each Investor covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company, such Investor will maintain the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Each Investor understands and acknowledges that the SEC currently takes the position that coverage of short sales of shares of the Common Stock "against the box" prior to effectiveness of a resale registration statement with securities included in such registration statement would be a violation of Section 5 of the 1933 Act, as set forth in Item 239.10 of the 1933 Act Rules Compliance and Disclosure Interpretations compiled by the Office of Chief Counsel, Division of Corporation Finance.

7.10. Adjustments in Share Numbers and Prices. In the event of any stock split, subdivision, dividend or distribution payable in shares of Common Stock (or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly shares of Common Stock), combination or other similar recapitalization or event occurring after the date hereof and prior to the Closing, each reference in any Transaction Document to a number of shares or a price per share shall be deemed to be amended to appropriately and fully account for such event.

## 8. Survival and Indemnification.

8.1. Survival. Subject to applicable statutes of limitations, the representations, warranties, covenants, and agreements contained in this Agreement shall survive the Closing for a period of two (2) years after the date hereof and thereafter shall have no further force and effect.

8.2. Indemnification by the Company. The Company agrees to indemnify and hold harmless each of the Investors, the officers, directors, partners, members, and employees of each Investor, each Affiliate of any such Investor (within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act) and the officers, directors, partners, members and employees of each such Affiliate (each, an “Indemnified Party”), against any losses, claims, damages, liabilities or expenses (“Losses”), joint or several, to which such Indemnified Party may become subject, insofar as such losses, claims, damages, liabilities or expenses (or actions in respect thereof as contemplated below) arise out of or are based in whole or in part on the inaccuracy in the representations and warranties of the Company contained in this Agreement or the failure of the Company to perform its obligations hereunder, and will reimburse each Indemnified Party for legal and other expenses reasonably incurred as such expenses are reasonably incurred by such Indemnified Party in connection with investigating, defending, settling, compromising or paying such loss, claim, damage, liability, expense or action; provided, however, that the Company will not be liable in any such case to the extent that any such loss, claim, damage, liability or expense arises out of or is based upon (i) the failure of such Indemnified Party to comply with the covenants and agreements contained herein, or (ii) the inaccuracy of any representations made by such Indemnified Party herein.

8.3. Indemnification Procedure. Promptly after any Indemnified Party has received notice of any indemnifiable claim hereunder, or the commencement of any action, suit or proceeding by a third Person, which the Indemnified Party believes in good faith is an indemnifiable claim under this Agreement, the Indemnified Party shall give the indemnitor hereunder (the “Indemnifying Party”) written notice of such claim or the commencement of such action, suit or proceeding, but failure to so notify the Indemnifying Party will not relieve the Indemnifying Party from any liability it may have to such Indemnified Party hereunder except to the extent that the Indemnifying Party is materially prejudiced by such failure. Such notice shall state the nature and the basis of such claim to the extent then known. The Indemnifying Party shall have the right to defend and settle, at its own expense and by its own counsel who shall be reasonably acceptable to the Indemnified Party, any such matter as long as the Indemnifying Party acknowledges that the Indemnifying Party is responsible for indemnifying the Indemnified Party with respect to such matter and pursues the same diligently and in good faith and so long as (i) such matter does not involve criminal liability and (ii) equitable relief is not sought against the Indemnified Party. If the Indemnifying Party undertakes to defend or settle, it shall promptly notify the Indemnified Party of its intention to do so, and the Indemnified Party shall cooperate with the Indemnifying Party and its counsel in all commercially reasonable respects in the defense thereof and the settlement thereof. Such cooperation shall include, but shall not be limited to, furnishing the Indemnifying Party with any books, records and other information reasonably requested by the Indemnifying Party and in the Indemnified Party’s possession or control. Such cooperation of the Indemnified Party shall be at the cost of the Indemnifying Party. After the Indemnifying Party has notified the Indemnified Party of its intention to undertake to defend or settle any such asserted liability, and for so long as the Indemnifying Party diligently pursues such defense, the Indemnifying Party shall not be liable for any additional legal expenses incurred by the Indemnified Party in connection with any defense or settlement of such asserted liability; provided, however, that the Indemnified Party shall be entitled (i) at its expense, to participate in the defense of such asserted liability and the negotiations of the settlement thereof and (ii) if (a) the Indemnifying Party has failed to assume the defense or employ counsel reasonably acceptable to the Indemnified Party or (b) if counsel to the Indemnified Party shall have concluded that there may be reasonable defenses available to the Indemnified Party that are different from or in addition to those available to the Indemnifying Party or if the interests of the Indemnified Party reasonably may be deemed to conflict with the interests of the Indemnifying Party, then the Indemnified Party shall have the right to select a separate counsel and to assume such legal defense and otherwise to participate in the defense of such action, with the expenses and fees of such separate counsel and other expenses related to such participation to be reimbursed by the Indemnifying Party as incurred. Notwithstanding any other provision of this Agreement, the Indemnifying Party shall not settle any indemnified claim without the consent of the Indemnified Party, unless the settlement thereof imposes no liability or obligation on, and includes a complete release from liability of, and does not include any admission of wrongdoing or malfeasance by, the Indemnified Party.

8.4. **Gross-Up.** For the avoidance of doubt, the amount of any Losses subject to indemnification pursuant to this Section 8 paid to an Indemnified Party shall include a gross-up to take into account such Indemnified Party's and its Affiliates' equity ownership in the Company such that, after payment of the grossed-up amount, such Indemnified Party will not have suffered any Losses.

8.5. **Treatment.** All amounts paid pursuant to this Section 8 shall, to the extent permitted by applicable law, be treated as adjustments to the purchase price for all tax purposes.

9. **Miscellaneous.**

9.1. **Successors and Assigns.** This Agreement may not be assigned by a party hereto without the prior written consent of the Company or the Investors, as applicable; provided, however, that an Investor may assign its rights and delegate its duties hereunder in whole or in part to an Affiliate without the prior written consent of the Company or the other Investors, provided such assignee agrees in writing to be bound by the provisions hereof that apply to Investors. The provisions of this Agreement shall inure to the benefit of and be binding upon the respective permitted successors and assigns of the parties. Without limiting the generality of the foregoing, in the event that the Company is a party to a merger, consolidation, share exchange or similar business combination transaction in which the Common Stock is converted into the equity securities of another Person, from and after the effective time of such transaction, such Person shall, by virtue of such transaction, be deemed to have assumed the obligations of the Company hereunder, the term "Company" shall be deemed to refer to such Person and the term "Securities" shall be deemed to refer to the securities received by the Investors in connection with such transaction. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective permitted successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

9.2. Counterparts; Faxes; E-mail. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed via facsimile or e-mail, which shall be deemed an original.

9.3. Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

9.4. Notices. All notices and other communications under this Agreement must be in writing and are deemed duly delivered when (i) delivered, if delivered personally or by nationally recognized overnight courier service (costs prepaid), (ii) sent by email with confirmation of receipt by the recipient or (iii) received or rejected by the addressee, if sent by United States of America certified or registered mail, return receipt requested; in each case to the following addresses or facsimile numbers and marked to the attention of the individual (by name or title) designated below (or to such other address, facsimile number or individual as a party may designate by notice to the other parties):

If to the Company:

Entasis Therapeutics Holdings Inc.  
35 Gatehouse Drive  
Waltham, MA 02451  
Attention: Elizabeth Keiley  
Telephone: (781) 870-0120  
E-mail: betzy.keiley@entasistx.com

With a copy (which will not constitute notice) to:

Covington & Burling LLP  
The New York Times Building  
620 Eighth Avenue  
New York, New York 10018  
Attention: Brian K. Rosenzweig and Jack S. Bodner  
Telephone: (212) 841-1108  
Facsimile: (646) 441-9108  
E-mail: brosenzweig@cov.com

If to the Investors:

to the addresses set forth on the signature pages hereto.

9.5. **Expenses.** The parties hereto shall pay their own costs and expenses in connection herewith regardless of whether the transactions contemplated hereby are consummated; it being understood that each of the Company and each Investor has relied on the advice of its own respective counsel. The Company shall pay any Transfer Agent fees, stamp taxes and other taxes and duties levied in connection with the sale and issuance of the Closing Securities to the Investors. Notwithstanding the foregoing or anything to the contrary contained herein, upon the earlier of the Closing and the valid termination of this Agreement (other than due to a breach by the Investor seeking reimbursement), the Company shall promptly reimburse each Investor for all reasonable and documented fees and expenses of such Investor and its Affiliates and representatives (including the fees and expenses of counsel) incurred prior to, on or after the date hereof in connection with the examination, review, due diligence investigation, documentation, negotiation, closing and funding of the transactions contemplated by this Agreement. Notwithstanding anything to the contrary herein, this Section 9.5 shall survive the termination of this Agreement.

9.6. **Amendments and Waivers.** Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and (i) prior to the Closing, each of the Investors and (ii) following the Closing, the Required Investors. Notwithstanding the foregoing, Sections 4, 5 and 9.10 of this Agreement may not be amended, terminated or waived in a manner that is material and adverse to the Placement Agents without the written consent of the Placement Agents. Any amendment or waiver effected in accordance with this paragraph shall be binding upon (a) prior to Closing, each Investor and (b) following the Closing, each holder of any Securities purchased under this Agreement at the time outstanding, and in each case, each future holder of all such Securities and the Company.

9.7. **Publicity.** Except as set forth below, no public release or announcement concerning the transactions contemplated hereby shall be issued by the Company or the Investors without the prior written consent of the Company (in the case of a release or announcement by the Investors) or the Investors (in the case of a release or announcement by the Company), except as such release or announcement may be required by law or the applicable rules or regulations of any securities exchange or securities market, in which case the Company or the Investors, as the case may be, shall allow the Investors or the Company, as applicable, to the extent reasonably practicable in the circumstances, reasonable time to comment on such release or announcement in advance of such issuance. By 9:00 A.M. (New York City time) on the Closing Date, the Company shall issue a press release in a form reasonably acceptable to the Investors disclosing all material terms of transactions contemplated by this Agreement (the “Press Release”). No later than 5:30 p.m. (New York City time) on the fourth Business Day following the date of this Agreement, the Company will file a Current Report on Form 8-K (the “8-K”) attaching the press release described in the foregoing sentence as well as copies of the Transaction Documents. The Company shall provide the 8-K to the Investors at least two (2) Business Days prior to the date of filing and shall consider in good faith any comments to the 8-K proposed by the Investors.

9.8

Provision Respecting Legal Representation. Each Investor hereby agrees, on its own behalf and on behalf of its directors, members, partners, officers, employees and affiliates, that Covington & Burling LLP (“Covington”) has served as counsel to the Company (and not such Investor or any of its directors, members, partners, officers, employees or affiliates) in connection with the negotiation, preparation, execution and delivery of this Agreement and the consummation of the transactions contemplated hereby. By purchasing Securities pursuant to this Agreement, such Investor irrevocably waives any conflict of interest arising from such representation of the Company, even though the interests of such Investor may be directly adverse to the Company and even though Covington may be handling ongoing unrelated matters for such Investor. Such Investor also hereby agrees that, following consummation of the transactions contemplated hereby, Covington (or any successor) may serve as counsel to the Company in connection with any amendment, modification, waiver or consent under or in respect of this Agreement, and such Investor hereby irrevocably consents thereto and irrevocably waives any conflict of interest arising therefrom, and such Investor shall cause its affiliates to irrevocably consent to waive any conflict of interest arising from such representation, even though the interests of the Investor may be directly adverse to the Company, and even though Covington may be handling ongoing unrelated matters for such Investor.

9.9.

Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof but shall be interpreted as if it were written so as to be enforceable to the maximum extent permitted by applicable law, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. To the extent permitted by applicable law, the parties hereby waive any provision of law which renders any provision hereof prohibited or unenforceable in any respect.

9.10.

No Third-Party Beneficiaries. The Placement Agents shall be third- party beneficiaries of Section 4, Section 5 and this Section 9.10 hereof and are entitled to the rights and benefits thereunder and may enforce the provisions thereof as if they were parties thereto. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as otherwise set forth in Section 8 and this Section 9.10.

9.11.

Entire Agreement. This Agreement, including the signature pages, Exhibits and the Disclosure Schedules, the other Transaction Documents and any oral or written agreement between the Company and any Investor regarding confidentiality matters that was entered into in connection with the transactions contemplated hereby constitute the entire agreement among the parties hereof with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, both oral and written, between the parties with respect to the subject matter hereof and thereof.

9.12.

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

9.13. Governing Law; Consent to Jurisdiction; Waiver of Jury Trial. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof (other than Sections 5-1401 and 5-1402 of the General Obligations Law). Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. **EACH OF THE PARTIES HERETO WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY IN ANY LITIGATION WITH RESPECT TO THIS AGREEMENT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER.**

9.14. Specific Performance. It is understood and agreed by the parties that irreparable damage would occur if any provision of this Agreement were not performed in accordance with the terms hereof and that the parties shall be entitled to an injunction or injunctions without the necessity of posting a bond to prevent breaches of this Agreement or to enforce specifically the performance of the terms and provisions hereof, in addition to any other remedy to which they are entitled at law or in equity. Unless otherwise expressly stated in this Agreement, no right or remedy described or provided in this Agreement is intended to be exclusive or to preclude a Party from pursuing other rights and remedies to the extent available under this Agreement, at law or in equity.

9.15. Independent Nature of Investors' Obligations and Rights. The obligations of each Investor under any Transaction Document are several and not joint with the obligations of any other Investor, and no Investor shall be responsible in any way for the performance of the obligations of any other Investor under any Transaction Document. The decision of each Investor to purchase Closing Securities pursuant to the Transaction Documents has been made by such Investor independently of any other Investor. Nothing contained herein or in any Transaction Document, and no action taken by any Investor pursuant thereto, shall be deemed to constitute the Investors as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Investors are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Investor acknowledges that no other Investor has acted as agent for such Investor in connection with making its investment hereunder and that no Investor will be acting as agent of such Investor in connection with monitoring its investment in the Closing Securities or enforcing its rights under the Transaction Documents. Each Investor shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Investor to be joined as an additional party in any proceeding for such purpose.

9.16.

No Recourse. Notwithstanding anything that may be expressed or implied in this Agreement, each party covenants, agrees and acknowledges that no recourse under this Agreement or any documents or instruments delivered in connection with this Agreement shall be had against any party's Affiliates, or any of such party's or such party's Affiliates' former, current or future director, officer, agent, employee, general or limited partner, member, manager or stockholder (collectively "Related Parties"), in each case other than the parties to this Agreement and each of their respective successors and permitted assigns under this Agreement, whether by the enforcement of any assessment or by any legal or equitable proceeding, or by virtue of any applicable Law, it being expressly agreed and acknowledged that no personal liability whatsoever shall attach to, be imposed on or otherwise be incurred by any of the Related Parties, as such, for any obligation or liability of any party under this Agreement or any documents or instruments delivered in connection herewith for any claim based on, in respect of or by reason of such obligations or liabilities or their creation; provided, however, that nothing in this Section 9.16 shall relieve or otherwise limit the liability of any party hereto or any of their respective successors or permitted assigns for any breach or violation of its obligations under this Agreement or such other documents or instruments. For the avoidance of doubt, none of the parties will have any recourse, be entitled to commence any proceeding or make any claim under this Agreement or in connection with the transactions contemplated hereby except against any of the parties or their respective successors and permitted assigns, as applicable.

[remainder of page intentionally left blank]

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

COMPANY:

ENTASIS THERAPEUTICS HOLDINGS INC.

By: /s/ Manoussos Perras  
Name: Manoussos Perras  
Title: CCO

INNOVIVA, INC.:

By: /s/ Pavel Raifeld  
Name: Pavel Raifeld  
Title: CEO

[Signature Page to Securities Purchase Agreement]

**EXHIBIT B-1**

**Form of Warrant**

**THIS WARRANT AND THE SHARES OF COMMON STOCK ISSUED UPON ITS EXERCISE ARE SUBJECT TO  
THE RESTRICTIONS ON  
TRANSFER SET FORTH IN SECTION 5 OF THIS WARRANT**

Warrant No. CS-[•]

Number of Shares: [•]

Date of Issuance: [•], 20201

(subject to adjustment)

Original Issue Date (as defined in subsection 2(a)): [•], 2020<sup>2</sup>Entasis Therapeutics Holdings Inc.Common Stock Purchase Warrant(Void after [•], [2025])<sup>3</sup>

Entasis Therapeutics Holdings Inc., a Delaware corporation (the “Company”), for value received, hereby certifies that [•], or its registered assigns (the “Registered Holder”), is entitled, subject to the terms and conditions set forth below, to purchase from the Company, at any time or from time to time on or after the date of issuance and on or before 5:00 p.m. (New York City time) on [•], [2025]<sup>4</sup> shares of Common Stock, \$0.001 par value per share, of the Company (“Common Stock”), at a purchase price of \$[•] per share. The shares purchasable upon exercise of this Warrant, and the purchase price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are hereinafter referred to as the “Warrant Shares” and the “Purchase Price,” respectively. This Warrant is one of the Warrants (the “Warrants”) issued pursuant to that certain Securities Purchase Agreement, dated as of [•], 2020<sup>5</sup>, by and among the Company and each of the investors party thereto (the “Purchase Agreement”). Capitalized terms used herein have the respective meanings ascribed thereto in the Purchase Agreement unless otherwise defined herein.

1. Exercise.

(a) Exercise for Cash. Subject to the limitations set forth in Section 1(e), the Registered Holder may elect to exercise this Warrant, in whole or in part and at any time or from time to time, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full, in lawful money of the United States, of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise.

(b) Cashless Exercise. Subject to the limitations set forth in Section 1(e), the Registered Holder may also elect to exercise this Warrant, in whole or in part, on a cashless basis, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly

1 To be dated the “Closing Date” under the Securities Purchase Agreement

2 To be dated the “Closing Date” under the Securities Purchase Agreement

3 To be dated five years from the “Closing Date” under the Securities Purchase Agreement

4 To be dated five years from the “Closing Date” under the Securities Purchase Agreement

5 To be dated the “Signing Date” under the Securities Purchase Agreement

executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, by canceling a portion of this Warrant in payment of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise. In the event of an exercise pursuant to this subsection 1(b), the number of Warrant Shares issued to the Registered Holder shall be determined according to the following formula:

$$\frac{[(A-B)*(X)]}{(A)}$$

Where:

A = the VWAP on the Trading Day immediately preceding the date of such election;

B = the Purchase Price then in effect; and

X = the number of Warrant Shares for which this Warrant is being exercised (which shall include both the number of Warrant Shares issued to the Registered Holder and the number of Warrant Shares subject to the portion of the Warrant being cancelled in payment of the Purchase Price).

The “VWAP” means, for any date, the price determined by the first of the following clauses that applies: (i) if the Common Stock is then listed on the Nasdaq Global Select Market, the Nasdaq Global Market, the Nasdaq Capital Market or the New York Stock Exchange (such market, the “Trading Market”), the daily volume-weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market as reported by Bloomberg Financial L.P. (based on a “Trading Day” from 9:30 a.m. Eastern Time to 4:02 p.m. Eastern Time); (ii) the volume-weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board; (iii) if the Common Stock is not then listed on a Trading Market or quoted on the OTC Bulletin Board and if prices for the Common Stock are then reported in the “Pink Sheets” published by the Pink Sheets, LLC (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported; or (iv) in all other cases, the fair market value of a share of Common Stock as determined by a good faith determination of the Company’s Board of Directors.

(c) Exercise Date. Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in subsection 1(a) or 1(b) above (the “Exercise Date”). At such time, the person or persons in whose name or names any certificates for Warrant Shares shall be issuable upon such exercise as provided in subsection 1(d) below shall be deemed to have become the holder or holders of record of the Warrant Shares represented by such certificates.

(d) Issuance Upon Exercise. As soon as practicable after the exercise of this Warrant in whole or in part, and in any event within five (5) days thereafter, the Company, at its expense, will cause to be issued in the name of, and delivered to, the Registered Holder, or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of full Warrant Shares to which the Registered Holder shall be entitled upon such exercise transmitted by the transfer agent of the Company to the Registered Holder in electronic book entry form to the account of such Registered Holder or, upon request of the Registered Holder, by physical delivery to the address specified by the Registered Holder, *plus*, in lieu of any fractional share to which the Registered Holder would otherwise be entitled, cash in an amount determined pursuant to Section 3 hereof; and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of Warrant Shares equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of this Warrant minus the number of Warrant Shares for which this Warrant was so exercised (which, in the case of an exercise pursuant to subsection 1(b), shall include both the number of Warrant Shares issued to the Registered Holder pursuant to such partial exercise and the number of Warrant Shares subject to the portion of the Warrant being cancelled in payment of the Purchase Price).

(e) [Limitations on Exercise]. Subject to the last sentence of this Section 1(e), the Company shall not effect the exercise of this Warrant, and the Registered Holder shall not have the right to exercise this Warrant, to the extent that after giving effect to such exercise, such Registered Holder (together with such Registered Holder’s Affiliates and any other Persons acting as a group together) would beneficially own in excess of [9.999]%^6 (the “Maximum Percentage”) of the shares of Common Stock outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by such Person and its Affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude shares of Common Stock which would be issuable upon (i) exercise of the remaining, unexercised portion of this Warrant beneficially owned by such Person and its Affiliates and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company beneficially owned by such Person and its Affiliates (including, without limitation, any convertible notes or convertible preferred stock or warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein. For purposes of this Warrant, in determining the number of outstanding shares of Common Stock, the Registered Holder may rely on the number of outstanding shares of Common Stock as reflected in (1) the Company’s most recent Form 10-K, Proxy Statement, Form 10-Q, Current Report on Form 8-K or other public filing with

the Securities and Exchange Commission, as the case may be, (2) a more recent public announcement by the Company or (3) any other notice by the Company or the Company's transfer agent setting forth the number of shares of Common Stock outstanding. For any reason at any time, upon the written or oral request of the Registered Holder, where such request indicates that it is being made pursuant to this Warrant, the Company shall within one (1) Trading Day confirm orally and in writing to the Registered Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the

6 Insert Maximum Percentage as indicated on the Buyer's signature page attached to the Securities Purchase Agreement.

conversion or exercise of securities of the Company, including the Warrants, by the Registered Holder and its Affiliates since the date as of which such number of outstanding shares of Common Stock was reported. Upon delivery of a written notice to the Company, the Registered Holder may from time to time increase or decrease the Maximum Percentage to any other percentage as specified in such notice; provided that in no event shall such Maximum Percentage be increased to more than 19.99%; provided, further, that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to the Registered Holder and not to any other holder of Warrants. For purposes of clarity, the shares of Common Stock issuable pursuant to the terms of this Warrant in excess of the Maximum Percentage shall not be deemed to be beneficially owned by the Registered Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the 1934 Act. No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 1(e) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 1(e) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations set forth in this Section 1(e) shall not apply to exercises of this Warrant that occur prior to and expressly in connection with the Company's consummation of a Fundamental Transaction.]<sup>7</sup>

(f) [Notwithstanding anything to the contrary contained herein[, including Section 1(e),] and subject to the last sentence of this Section 1[(f)], the Company shall not effect any exercise of this Warrant, and the Registered Holder shall not be entitled to exercise this Warrant for a number of Warrant Shares in excess of that number of Warrant Shares which, upon giving effect to such exercise, would cause (i) the aggregate number of shares of Common Stock beneficially owned by the Registered Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Registered Holder's for purposes of Section 13(d) of the 1934 Act and the rules and regulations promulgated thereunder, including any "group" of which the Registered Holder is a member, to exceed 19.99% of the total number of issued and outstanding shares of Common Stock of the Company following such exercise, or (ii) the combined voting power of the securities of the Company beneficially owned by the Registered Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Registered Holder's for purposes of Section 13(d) of the 1934 Act to exceed 19.99% of the combined voting power of all of the securities of the Company then outstanding following such exercise. For purposes of this Section 1[(f)], the aggregate number of shares of Common Stock or voting securities beneficially owned by the Registered Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Registered Holder's for purposes of Section 13(d) of the 1934 Act shall include the shares of Common Stock issuable upon the exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (x) exercise of the remaining unexercised and non-cancelled portion of this Warrant by the Registered Holder and (y) exercise or conversion of the unexercised, non-converted or non-cancelled portion of any other securities of the Company that do not have voting power (including without limitation any securities of the

7 This section is not applicable to, and will not be included in, the Warrants issued to Innoviva, Inc.

Company which would entitle the holder thereof to acquire at any time Common Stock, including without limitation any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock), is subject to a limitation on conversion or exercise analogous to the limitation contained herein and is beneficially owned by the Registered Holder or any of its Affiliates and other Persons whose beneficial ownership of Common Stock would be aggregated with the Registered Holder's for purposes of Section 13(d) of the 1934 Act. The limitations set forth in this Section 1(f) shall not apply to exercises of this Warrant that occur prior to and expressly in connection with the Company's consummation of a Fundamental Transaction.]<sup>8</sup>

2. Adjustments.

(a) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after the date on which this Warrant was first issued (or, if this Warrant was issued upon partial exercise of, or in replacement of, another warrant of like tenor, then the date on which such original warrant was first issued) (either such date being referred to as the "Original Issue Date") effect a subdivision of the outstanding Common Stock, the Purchase Price then in effect immediately before that subdivision shall be proportionately decreased. If the Company shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Purchase Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Adjustment for Certain Dividends and Distributions. In the event the Company at any time, or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Purchase Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Purchase Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Purchase Price shall be recomputed accordingly as of the close of business on such record date and thereafter the

<sup>8</sup> To be added only for investors which would otherwise acquire more than 19.99%. This paragraph is not applicable to, and will not be included in, the Warrants issued to Innoviva, Inc.

Purchase Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions.

(c) Adjustment in Number of Warrant Shares. When any adjustment is required to be made in the Purchase Price pursuant to subsections 2(a) or 2(b), the number of Warrant Shares purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment.

(d) Other Dividends and Distributions. In the event the Company at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Company (other than shares of Common Stock) or in cash or other property (other than regular cash dividends paid out of earnings or earned surplus, determined in accordance with generally accepted accounting principles), then and in each such event provision shall be made so that the Registered Holder shall receive the kind and amount of securities of the Company, cash or other property which the Registered Holder would have been entitled to receive had this Warrant been exercised on the date of such event (or immediately prior to the applicable record date therefor) and had the Registered Holder thereafter, during the period from the date of such event to and including the Exercise Date, retained any such securities receivable during such period, giving application to all adjustments called for during such period under this Section 2 with respect to the rights of the Registered Holder.

(e) Adjustment for Reorganization. If there shall occur any reorganization, recapitalization, reclassification, consolidation, merger or similar transaction involving the Company in which the Common Stock is converted into or exchanged for securities, cash or other property (other than a transaction covered by subsections 2(a), 2(b) or 2(d)) (collectively, a “Reorganization”), then, following such Reorganization, the Registered Holder shall receive upon exercise hereof the kind and amount of securities, cash or other property which the Registered Holder would have been entitled to receive pursuant to such Reorganization if such exercise had taken place immediately prior to such Reorganization. In any such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions set forth herein with respect to the rights and interests thereafter of the Registered Holder, to the end that the provisions set forth in this Section 2 (including provisions with respect to changes in and other adjustments of the Purchase Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities, cash or other property thereafter deliverable upon the exercise of this Warrant.

(f) Fundamental Transactions. If the Company shall enter into or be party to a Fundamental Transaction (as defined below) and (i) if the successor entity is a publicly traded corporation whose common stock is quoted on or listed for trading on an Eligible Market (as defined below), the successor entity shall assume in writing all of the obligations of the Company under this Warrant pursuant to written agreements in customary form, including agreements to deliver to each Registered Holder of Warrants in exchange for such Warrants a written instrument issued by the successor entity substantially similar in form and substance to this Warrant and exercisable for a corresponding number of shares of capital stock equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) on or prior to the date of such Fundamental Transaction and (ii) if the successor entity is not a publicly traded corporation whose common stock is quoted on or listed for trading on an Eligible Market, the successor entity shall assume in writing all of the obligations of the Company under this Warrant pursuant to written agreements in customary form, including agreements to deliver to each holder of Warrants in exchange for such Warrants a written instrument issued by the successor entity substantially similar in form and substance to this Warrant exercisable for the consideration that would have been issuable in the Fundamental Transaction in respect of the Warrant Shares had this Warrant been exercised immediately prior to the consummation of the Fundamental Transaction. The provisions of this Section 2(f) shall apply similarly and equally to successive Fundamental Transactions and shall be applied without regard to any limitations on the exercise of this Warrant. Notwithstanding the foregoing, in the event of a Fundamental Transaction other than pursuant to clause (i) above, then, at the request of the Registered Holder delivered before the 15th day after such Fundamental Transaction, the Company (or the successor entity) shall purchase this Warrant and all other outstanding Warrants held by such Registered Holder by paying to such Registered Holder, within ten (10) business days after such request (or, if later, on the effective date of the Fundamental Transaction), cash in an amount equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of each Warrant, as applicable, on the date of such Fundamental Transaction. For the sake of clarity, such calculation shall assume full exercisability of this Warrant.

**“Black Scholes Value”** means the value of this Warrant based on the Black and Scholes Option Pricing Model obtained from the “OV” function on Bloomberg determined as of the day immediately following the public announcement of the applicable Fundamental Transaction and reflecting (i) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Warrant as of such date of request and (ii) an expected volatility equal to 70%.

**“Eligible Market”** means any of the Nasdaq Global Select Market, the Nasdaq Global Market, the Nasdaq Capital Market or the New York Stock Exchange (or any successors to any of the foregoing).

**“Fundamental Transaction”** means that (A) the Company shall, directly or indirectly, in one or more related transactions, (i) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Person, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company to another Person, or (iii) allow another Person to make a purchase, tender or exchange offer that is accepted by the holders of more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer), or (iv) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock purchase agreement or other business combination) or (B) any “person” or “group” (as these terms are used for purposes of Sections 13(d) and 14(d) of the 1934 Act) is or shall become the “beneficial owner” (as defined in Rule 13d-3 under the 1934 Act), directly or indirectly, of more than 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock.

**“Person”** means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(g)        **Certificate as to Adjustments.** Upon the occurrence of each adjustment or readjustment of the Purchase Price pursuant to this Section 2, the Company at its expense shall, as promptly as reasonably practicable but in any event not later than ten (10) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to the Registered Holder a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property for which this Warrant shall be exercisable and the Purchase Price). The Company shall, as promptly as reasonably practicable after the written request at any time of the Registered Holder (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to the Registered Holder a certificate setting forth (i) the Purchase Price then in effect and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the exercise of this Warrant.

(h)        **Calculations.** All calculations under this Section 2 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be.

3.        **Fractional Shares.** The Company shall not be required upon the exercise of this Warrant to issue any fractional shares, but shall pay the value thereof to the Registered Holder in cash on the basis of the VWAP used in connection with the calculation set forth in subsection 1(b) above upon the applicable exercise.

4.        **Representations.**

(a)        The initial Registered Holder represents and warrants to the Company as follows:

(i)        **Investment.** The Registered Holder is acquiring the Warrant, and (if and when the Registered Holder exercises this Warrant) the Registered Holder will acquire the Warrant Shares, for the Registered Holder’s own account for investment and not with a view to, or for sale in connection with, any distribution thereof, nor with any present intention of distributing or selling the same; and the Registered Holder has no present or contemplated agreement, undertaking, arrangement, obligation, indebtedness or commitment providing for the disposition thereof.

(ii)        **Accredited Investor.** The Registered Holder is an “accredited investor” as defined in Rule 501(a) under the 1933 Act.

(iii)        **Experience.** The Registered Holder has made such inquiry concerning the Company and its business and personnel as the Registered Holder has deemed appropriate; and the Registered Holder has sufficient knowledge and experience in finance and business that the Registered Holder is capable of evaluating the risks and merits of the Registered Holder’s investment in the Company.

(b) The Company represents and warrants to the Registered Holder as follows:

- (a) The shares of Common Stock which may be issued upon the exercise of the Warrants represented by this Warrant will, upon issuance and payment therefor of the amount at which such shares of Common Stock may at the time be purchased pursuant to the provisions hereof (including pursuant to a cashless exercise), be validly issued, fully paid and non-assessable and in each case, be free and clear of any liens;
- (b) The Company shall use its commercially reasonable efforts to maintain a listing of its Common Stock on the Nasdaq Global Market or other Eligible Market, provided that nothing contained in this clause (c) shall be construed to limit (or to limit) the right of the Company to engage in a transaction that may result in it ceasing to be so listed;
- (c) The Company has taken and will take all such actions as may be reasonably necessary and as are within its power to ensure that all those shares of Common Stock and Warrants issued or issuable pursuant to this Warrant may be so issued without violation of applicable securities laws; and
- (d) The Company will promptly advise the Registered Holder of any defaults under this Warrant.

5. Transfers, etc.

(a) This Warrant and the Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Act, or (ii) the Company first shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the Act.

(b) The Registered Holder acknowledges and agrees that the Warrant Shares shall be subject to the restrictive legend requirements set forth in the Purchase Agreement.

(c) The Company will maintain a register containing the name and address of the Registered Holder of this Warrant. The Registered Holder may change the Registered Holder's address as shown on the warrant register by written notice to the Company requesting such change.

(d) Subject to the provisions of Section 5 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant with a properly executed assignment (in the form of Exhibit II hereto) at the principal office of the Company (or, if another office or agency has been designated by the Company for such purpose, then at such other office or agency).

6. Notices of Record Date, etc. In the event:

(a) the Company shall take a record of the holders of its Common Stock (or other stock or securities at the time deliverable upon the exercise of this Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(b) of any capital reorganization of the Company, any reclassification of the Common Stock of the Company, any consolidation or merger of the Company with or into another corporation (other than a consolidation or merger in which the Company is the surviving entity and its Common Stock is not converted into or exchanged for any other securities or property), or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company,

then, and in each such case, the Company will send or cause to be sent to the Registered Holder a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time deliverable upon the exercise of this Warrant) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be sent at least five (5) days prior to the record date or effective date for the event specified in such notice, and the Registered Holder shall keep any such notice confidential.

7. Reservation of Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, such number of Warrant Shares and other securities, cash and/or property, as from time to time shall be issuable upon the exercise of this Warrant. [Such reservation shall comply without regard to the provisions of [Section 1(e)] [and] [Section 1(f)].]

8. Exchange or Replacement of Warrants.

(a) Upon the surrender by the Registered Holder, properly endorsed, to the Company at the principal office of the Company, the Company will, subject to the provisions of Section 5 hereof, issue and deliver to or upon the order of the Registered Holder, at the Company's expense, a new Warrant or Warrants of like tenor, in the name of the Registered Holder or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock (or other securities, cash and/or property) then issuable upon exercise of this Warrant.

(b) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

9. **Notices.** All notices and other communications from the Company to the Registered Holder in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the address last furnished to the Company in writing by the Registered Holder. All notices and other communications from the Registered Holder to the Company in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the Company at its principal office set forth below. If the Company should at any time change the location of its principal office to a place other than as set forth below, it shall give prompt written notice to the Registered Holder and thereafter all references in this Warrant to the location of its principal office at the particular time shall be as so specified in such notice. All such notices and communications shall be deemed delivered (i) two (2) business days after being sent by certified or registered mail, return receipt requested, postage prepaid, or (ii) one (1) business day after being sent via a reputable nationwide overnight courier service guaranteeing next business day delivery.

10. **No Rights as Stockholder.** Until the exercise of this Warrant, the Registered Holder shall not have or exercise any rights by virtue hereof as a stockholder of the Company. Notwithstanding the foregoing, in the event (i) the Company effects a split of the Common Stock by means of a stock dividend and the Purchase Price of and the number of Warrant Shares are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), and (ii) the Registered Holder exercises this Warrant between the record date and the distribution date for such stock dividend, the Registered Holder shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

11. **General.**

(a) **Amendment or Waiver.** Any term of this Warrant may be amended or waived only by an instrument in writing signed by the party against which enforcement of the change or waiver is sought. No waivers of any term, condition or provision of this Warrant, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

(b) **Section Headings.** The section headings in this Warrant are for the convenience of the parties and in no way alter, modify, amend, limit or restrict the contractual obligations of the parties.

(c) **Governing Law; Trial by Jury.** This Warrant shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof that would result in the application of the laws of any other jurisdiction. The Company and the Holder each hereby irrevocably agree to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purposes of any action or legal proceeding arising out of this Warrant and the rights and obligations arising hereunder, and irrevocably and unconditionally waives any objection to the laying of venue of any such action or legal proceeding in any such court, and further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such action or legal proceeding has been brought in an inconvenient forum. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY ACTION OR LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS WARRANT.

(d) Successors and Assigns. This Warrant Certificate and all of its provisions shall inure to the benefit of the Registered Holder, and its heirs, executors, administrators, successors, legal representatives and assigns and shall be binding upon the Company and its successors and permitted assigns.

(e) Counterparts. This Warrant may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Warrant delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Warrant.

(f) Specific Performance. The parties hereto acknowledge and agree that irreparable damage would occur in the event that any of the provisions of this Warrant were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties hereto shall be entitled to an injunction or injunctions to prevent breaches or threatened breaches of this Warrant and to enforce specifically the terms and provisions of this Warrant in any court of competent jurisdiction, in each case without proof of damages or otherwise (and each party hereto hereby waives any requirement for the securing or posting of any bond in connection with such remedy), this being in addition to any other remedy to which they are entitled at law or in equity. The parties hereto agree not to assert that a remedy of specific enforcement is unenforceable, invalid, contrary to law or inequitable for any reason, nor to assert that a remedy of monetary damages would provide an adequate remedy.

(g) Severability. If any one or more of the provisions or parts thereof contained in this Warrant Certificate should be or become invalid, illegal or unenforceable in any respect in any jurisdiction, the remaining provisions or parts thereof contained herein shall be and shall be conclusively deemed to be, as to such jurisdiction, severable therefrom and:

(i) the validity, legality or enforceability of such remaining provisions or parts thereof shall not in any way be affected or impaired by the severance of the provisions or parts thereof severed;

(ii) the invalidity, illegality or unenforceability of any provision or part thereof contained in this Warrant in any jurisdiction shall not affect or impair such provision or part thereof or any other provisions of this Warrant Certificate in any other jurisdiction; and

(iii) the Company and the Holder shall negotiate in good faith to modify this Warrant Certificate so as to effect the original intent of the Company and the Holder as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated and the economic benefits anticipated hereunder be as originally contemplated to the greatest extent possible.

[remainder of page intentionally left blank]

EXECUTED as of the Date of Issuance indicated above.

ENTASIS THERAPEUTICS HOLDINGS INC.

By:

Name:

Title:

PURCHASE FORM

To: \_\_\_\_\_

Dated: \_\_\_\_\_

The undersigned, pursuant to the provisions set forth in the attached Warrant (No.\_\_\_\_\_), hereby elects to purchase (*check applicable box*):

- shares of the Common Stock of Entasis Therapeutics Holdings Inc. covered by such Warrant; or
- the maximum number of shares of Common Stock covered by such Warrant pursuant to the cashless exercise procedure set forth in subsection 1(b).

The undersigned herewith makes payment of the full purchase price for such shares at the price per share provided for in such Warrant. Such payment takes the form of (*check applicable box or boxes*):

- \$ in lawful money of the United States; and/or
- the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 1(b), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 1(b).

Signature: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

ASSIGNMENT FORM

FOR VALUE RECEIVED, hereby sells, assigns and transfers all of the rights of the undersigned under the attached Warrant (No.

) with respect to the number of shares of Common Stock of Entasis Therapeutics Holdings Inc. covered thereby set forth below, unto:

Name of Assignee

AddressNo. of Shares

Dated: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature Guaranteed:

By: \_\_\_\_\_

**EXHIBIT C**  
**Form of Registration Rights Agreement**

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## **REGISTRATION RIGHTS AGREEMENT**

This REGISTRATION RIGHTS AGREEMENT (this “Agreement”) is made and entered into as of August 31, 2020 by and among Entasis Therapeutics Holdings Inc., a Delaware corporation (the “Company”), and the “Investors” named in the Securities Purchase Agreement, dated August 27, 2020, by and among the Company and the Investors identified on Exhibit A attached thereto (the “Purchase Agreement”). Capitalized terms used herein have the respective meanings ascribed thereto in the Purchase Agreement unless otherwise defined herein.

The parties hereby agree as follows:

1. **Certain Definitions.**

As used in this Agreement, the following terms shall have the following meanings:

“Closing Date” has the meaning ascribed to it in the Purchase Agreement.

“Closing Securities” has the meaning ascribed to it in the Purchase Agreement.

“Investors” means the Investors identified in the Purchase Agreement and any Affiliate or permitted transferee of any such Investor who is a subsequent holder of Registrable Securities.

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

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

“Registrable Securities” means (i) the Shares and Warrant Shares (ii) any other shares of Common Stock issued as a dividend or other distribution with respect to, in exchange for or in replacement of the Shares or Warrant Shares, (iii) the Warrants and (iv) any options, warrants or other rights to acquire, and any securities received as a dividend or distribution in respect of, any of the securities described in clauses (i), (ii) and (iii) above; provided, however, that any such Registrable Securities shall cease to be Registrable Securities (and the Company shall not be required to maintain the effectiveness of any, or file another, Registration Statement hereunder with respect thereto) upon the first to occur of (A) a Registration Statement with respect to the sale of such Registrable Securities being declared effective by the SEC under the 1933 Act and such Registrable Securities having been disposed of or transferred by the holder thereof in accordance with such effective Registration Statement, (B) such Registrable Securities having been previously sold or transferred in accordance with Rule 144 (or another exemption from the registration requirements of the 1933 Act) and (C) such securities becoming eligible for resale without volume or manner-of-sale restrictions and without current public information requirements pursuant to Rule 144.

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

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

**“SEC Guidance”** means (i) any publicly-available written or oral guidance of the SEC staff, or any comments, requirements or requests of the SEC staff and (ii) the 1933 Act.

**“Shares”** means the shares of Common Stock purchased by the Investors pursuant to the Purchase Agreement.

**“Warrant Shares”** has the meaning ascribed to it in the Purchase Agreement.

**2. Registration.**

**(a) Registration Statements.**

- (i) Promptly following the Closing Date but no later than forty-five (45) calendar days after the Closing Date (the “Filing Deadline”), the Company shall prepare and file with the SEC one Registration Statement covering the resale of all of the Registrable Securities. Subject to any SEC comments, such Registration Statement shall include the plan of distribution, substantially in the form and substance, set forth in Part III of each Investor’s Selling Stockholder Questionnaire. Such Registration Statement also shall cover, to the extent allowable under the 1933 Act and the rules promulgated thereunder (including Rule 416), such indeterminate number of additional shares of Common Stock resulting from stock splits, stock dividends or similar transactions with respect to the Registrable Securities. The Company will, (A) at least three (3) Business Days prior to the anticipated filing of a Registration Statement or any related Prospectus or any amendment or supplement thereto (including any documents incorporated by reference therein), furnish to the Investors and their respective counsel copies of all such documents proposed to be filed and make such representatives of the Company as shall be reasonably requested by the Investors available for discussion of such documents, (B) use its reasonable best efforts to address in each such document prior to being so filed with the SEC such comments as an Investor or its counsel reasonably shall propose within two (2) Business Days of receipt of such copies by the Investors and (C) not file any Registration Statement or any related Prospectus or any amendment or supplement thereto containing information regarding an Investor to which such Investor objects, unless such information is required to comply with any applicable law or regulation. If a Registration Statement covering the Registrable Securities is not filed with the SEC on or prior to the fifth Business Day following the Filing Deadline, the Company will make pro rata payments to each Investor, as liquidated damages and not as a penalty, in an amount equal to 1% of the aggregate amount paid pursuant to the Purchase Agreement by such Investor for such Registrable Securities then held by such Investor for each 30-day period or pro rata for any portion thereof following the Filing Deadline for which no Registration Statement is filed with respect to the Registrable Securities. Such payments shall constitute the Investors’ exclusive monetary remedy for such events, but shall not affect the right of the Investors to seek injunctive relief. Such payments shall be made to each Investor in cash no later than five (5) Business Days after the end of each 30-day period (the “Payment Date”). Interest shall accrue at the rate of 1% per month on any such liquidated damages payments that shall not be paid by the Payment Date until such amount is paid in full. Notwithstanding the foregoing, the Company will not be liable for any liquidated damages under this Section 2(a)(i) with respect to any Warrant Shares prior to their issuance.

(ii) The Company shall take reasonable best efforts to register the Registrable Securities on Form S-3 following the date such form is available for use by the Company, provided that if at such time the Registration Statement is on Form S-1, the Company shall maintain the effectiveness of the Registration Statement then in effect until such time as a Registration Statement on Form S-3 covering the Registrable Securities has been declared effective by the SEC.

(b) Expenses. The Company will pay all expenses associated with each Registration Statement, including filing and printing fees, the Company's counsel and accounting fees and expenses, costs associated with clearing the Registrable Securities for sale under applicable state securities laws and listing fees, but excluding discounts, commissions, fees of underwriters, selling brokers, dealer managers or similar securities industry professionals with respect to the Registrable Securities being sold. Except as provided in Section 6 hereof, the Company shall not be responsible for legal fees incurred by holders of Registrable Securities in connection with the performance of its rights and obligations under the Transaction Documents.

(c) Effectiveness.

(i) The Company shall use reasonable best efforts to have the Registration Statements declared effective as soon as practicable. The Company shall notify the Investors by e-mail as promptly as practicable, and in any event, within forty-eight (48) hours, after any Registration Statement is declared effective and shall simultaneously provide the Investors with access to a copy of any related Prospectus to be used in connection with the sale or other disposition of the securities covered thereby. Subject to Section 2(d), if (A) a Registration Statement covering the Registrable Securities is not declared effective by the SEC prior to the earlier of (x) ten (10) Business Days after the SEC informs the Company that no review of such Registration Statement will be made or that the SEC has no further comments on such Registration Statement and (y) the 90th day after the Closing Date (or the 120th day if the SEC reviews such Registration Statement) (the "Effectiveness Deadline"), or (B) after a Registration Statement has been declared effective by the SEC, sales cannot be made pursuant to such Registration Statement for any reason (including without limitation by reason of a stop order, or the Company's failure to update such Registration Statement), but excluding any Allowed Delay (as defined below) or, if the Registration Statement is on Form S-1, for a period of twenty (20) days following the date on which the Company files a post-effective amendment to incorporate the Company's Annual Report on Form 10-K (a "Maintenance Failure"), then the Company will make pro rata payments to each Investor then holding Registrable Securities, as liquidated damages and not as a penalty, in an amount equal to 1% of the aggregate amount paid pursuant to the Purchase Agreement by such Investor for such Registrable Securities then held by such Investor for each 30-day period or pro rata for any portion thereof following the date by which such Registration Statement should have been effective (the "Blackout Period"). Such payments shall constitute the Investors' exclusive monetary remedy for such events, but shall not affect the right of the Investors to seek injunctive relief. The amounts payable as liquidated damages pursuant to this paragraph shall be paid no later than five (5) Business Days after each such 30-day period following the commencement of the Blackout Period until the termination of the Blackout Period (the "Blackout Period Payment Date"). Such payments shall be made to each Investor in cash. Interest shall accrue at the rate of 1% per month on any such liquidated damages payments that shall not be paid by the Blackout Payment Date until such amount is paid in full. Notwithstanding the foregoing, the Company will not be liable for any liquidated damages under this Section 2(c)(i) with respect to any Warrant Shares prior to their issuance.

(ii) Notwithstanding anything to the contrary contained herein, the Company may, upon written notice to any holder of Registrable Securities included in a Registration Statement, suspend the use of any Registration Statement, including any Prospectus that forms a part of a Registration Statement, if the Company (A) determines that it would be required to make disclosure of nonpublic material information in the Registration Statement that would otherwise not be required to be disclosed at that time that would be materially adverse to the Company, or (B) the Company determines it must amend or supplement the Registration Statement or the related Prospectus so that such Registration Statement or Prospectus shall not include 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 case of the Prospectus in light of the circumstances under which they were made, not misleading; provided, however, in no event shall holders of Registrable Securities be suspended from selling Registrable Securities pursuant to the Registration Statement for a period that exceeds 30 consecutive Trading Days or 60 total Trading Days in any 360-day period (any such suspension contemplated by this Section 2(c)(ii), an “Allowed Delay”). Upon disclosure of such information or the termination of the condition described above, the Company shall provide prompt notice to holders whose Registrable Securities are included in the Registration Statement, and shall promptly terminate any suspension of sales it has put into effect and shall take such other reasonable actions to permit registered sales of Registrable Securities as contemplated hereby.

(d) Rule 415; Cutback. If at any time the SEC takes the position that the offering of some or all of the Registrable Securities in a Registration Statement is not eligible to be made on a delayed or continuous basis under the provisions of Rule 415 under the 1933 Act (provided, however, the Company shall be obligated to use diligent efforts to advocate with the SEC for the registration of all of the Registrable Securities in accordance with the SEC Guidance, including without limitation, Compliance and Disclosure Interpretation 612.09) or requires any Investor to be named as an “underwriter,” the Company shall (i) promptly notify each holder of Registrable Securities thereof and (ii) make reasonable best efforts to persuade the SEC that the offering contemplated by such Registration Statement is a valid secondary offering and not an offering “by or on behalf of the issuer” as defined in Rule 415 and that none of the Investors is an “underwriter.” The Investors shall have the right to select one legal counsel designated jointly by the Investors to review and oversee any registration or matters pursuant to this Section 2(d), including participation in any meetings or discussions with the SEC regarding the SEC’s position and to comment on any written submission made to the SEC with respect thereto. No such written submission with respect to this matter shall be made to the SEC to which the Investors’ counsel reasonably objects. In the event that, despite the Company’s reasonable best efforts and compliance with the terms of this Section 2(d), the SEC refuses to alter its position, the Company shall (A) remove from such Registration Statement such portion of the Registrable Securities (the “Cut Back Shares”) and/or (B) agree to such restrictions and limitations on the registration and resale of the Registrable Securities as the SEC may require to assure the Company’s compliance with the requirements of Rule 415 (collectively, the “SEC Restrictions”); provided, however, that the Company shall not agree to name any Investor as an “underwriter” in such Registration Statement without the prior written consent of such Investor. In the event of a cutback hereunder, the Company shall give the Investor at least five (5) Business Days prior written notice along with the calculations as to such Investor’s allotment. Any cutback imposed on the Investors pursuant to this Section 2(d) shall be allocated among the Investors on a pro rata basis and shall be applied first to any of the Registrable Securities of such Investor as such Investor shall designate, unless the SEC Restrictions otherwise require or provide or the Investors otherwise agree. No liquidated damages shall accrue as to any Cut Back Shares until such date as the Company is able to effect the registration of such Cut Back Shares in accordance with any SEC Restrictions applicable to such Cut Back Shares (such date, the “Restriction Termination Date”). In furtherance of the foregoing, each Investor shall provide the Company with prompt written notice of its sale of substantially all of the Registrable Securities under such Registration Statement such that the Company will be able to file one or more additional Registration Statements covering the Cut Back Shares. From and after the Restriction Termination Date applicable to any Cut Back Shares, all of the provisions of this Section 2 (including the Company’s obligations with respect to the filing of a Registration Statement and its obligations to use reasonable best efforts to have such Registration Statement declared effective within the time periods set forth herein and the liquidated damages provisions relating thereto) shall again be applicable to such Cut Back Shares; provided, however, that (x) the Filing Deadline for such Registration Statement including such Cut Back Shares shall be ten (10) Business Days after such Restriction Termination Date, and (y) the date by which the Company is required to obtain effectiveness with respect to such Cut Back Shares shall be the 60th day immediately after the Restriction Termination Date (or the 90th day if the SEC reviews such Registration Statement).

(e) Other Limitations. Notwithstanding any other provision herein or in the Purchase Agreement, (i) the Filing Deadline and each Effectiveness Deadline for a Registration Statement shall be extended and any Maintenance Failure shall be automatically waived by no action of the Investors, in each case, without default by or liquidated damages payable by the Company hereunder in the event that the Company's failure to make such filing or obtain such effectiveness or a Maintenance Failure results from the failure of an Investor to timely provide the Company with information requested by the Company and necessary to complete a Registration Statement in accordance with the requirements of the 1933 Act (in which case any such deadline would be extended, and a Maintenance Failure waived, with respect to all Registrable Securities until such time as the Investor provides such requested information) and (ii) in no event shall the aggregate amount of liquidated damages (or interest thereon) paid hereunder exceed, in the aggregate, 8% of the aggregate purchase price of the Closing Securities purchased by the Investors under the Purchase Agreement.

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

(a) use reasonable best efforts to cause such Registration Statement to become effective and to remain continuously effective until such time as there are no longer Registrable Securities held by the Investors (the "Effectiveness Period") and advise the Investors promptly in writing when the Effectiveness Period has expired;

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

(c) permit, upon request, any counsel designated by an Investor to review each Registration Statement and all amendments and supplements thereto prior to their filing with the SEC;

(d) furnish to each Investor whose Registrable Securities are included in any Registration Statement (i) promptly after the same is prepared and filed with the SEC, if requested by the Investor, one (1) copy of any Registration Statement and any amendment thereto, each preliminary prospectus and Prospectus and each amendment or supplement thereto, and each letter written by or on behalf of the Company to the SEC or the staff of the SEC, and each item of correspondence from the SEC or the staff of the SEC, in each case relating to such Registration Statement (other than any portion of any thereof which contains information for which the Company has sought confidential treatment), and (ii) such number of copies of a Prospectus, including a preliminary prospectus, and all amendments and supplements thereto and such other documents as each Investor may reasonably request in order to facilitate the disposition of the Registrable Securities owned by such Investor (it being understood and agreed that such documents, or access thereto, may be provided electronically);

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

(f) prior to any public offering of Registrable Securities, use reasonable best efforts to assist or cooperate with the Investors and their counsel in connection with their registration or qualification of such Registrable Securities for the offer and sale under the securities or blue sky laws of such jurisdictions reasonably requested by the Investors; provided, however, that the Company shall not be required in connection therewith or as a condition thereto to (i) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(f), (ii) subject itself to general taxation in any jurisdiction where it would not otherwise be so subject but for this Section 3(f), or (iii) file a general consent to service of process in any such jurisdiction;

(g) use reasonable best efforts to cause all Registrable Securities covered by a Registration Statement to be listed on the Nasdaq Global Market (or the primary securities exchange, interdealer quotation system or other market on which the Common Stock then listed);

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

(i) otherwise use reasonable best efforts to comply with all applicable rules and regulations of the SEC under the 1933 Act and the 1934 Act, including, without limitation, Rule 172 under the 1933 Act, file any final Prospectus, including any supplement or amendment thereof, with the SEC pursuant to Rule 424 under the 1933 Act, promptly inform the Investors in writing if, at any time during the Effectiveness Period, the Company does not satisfy the conditions specified in Rule 172 and, as a result thereof, the Investors are required to deliver a Prospectus in connection with any disposition of Registrable Securities and take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder;

(j) with a view to making available to the Investors the benefits of Rule 144 (or its successor rule) and any other rule or regulation of the SEC that may at any time permit the Investors to sell shares of Common Stock to the public without registration, the Company covenants and agrees to: (i) make and keep public information available, as those terms are understood and defined in Rule 144, until the earlier of (A) six months after such date as all of the Registrable Securities may be sold without restriction by the holders thereof pursuant to Rule 144 or any other rule of similar effect or (B) such date as there are no longer Registrable Securities; (ii) file with the SEC in a timely manner all reports and other documents required of the Company under the 1934 Act; and (iii) furnish electronically to each Investor upon request, as long as such Investor owns any Registrable Securities, (A) a written statement by the Company that it has complied with the reporting requirements of the 1934 Act, (B) a copy of or electronic access to the Company's most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q, and (C) such other information as may be reasonably requested in order to avail such Investor of any rule or regulation of the SEC that permits the selling of any such Registrable Securities without registration; and

(k) if requested by an Investor, cooperate with such Investor to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be delivered to a transferee pursuant to an effective Registration Statement, which certificates shall be free, to the extent permitted by the Purchase Agreement and applicable law, of all restrictive legends, and to enable such certificates to be in such denominations and registered in such names as any such Investor may request.

4. **Due Diligence Review; Information.** If any Investor is required under applicable securities laws to be described in a Registration Statement as an “underwriter,” the Company shall, upon reasonable prior notice, make available, during normal business hours, for inspection and review by the Investors, advisors to and representatives of the Investors (who may or may not be affiliated with the Investors and who are reasonably acceptable to the Company) (collectively, the “Inspectors”), all pertinent financial and other records, and all other corporate documents and properties of the Company (collectively, the “Records”) as may be reasonably necessary for the purpose of such review, and cause the Company’s officers, directors and employees, within a reasonable time period, to supply all such information reasonably requested by the Inspectors (including, without limitation, in response to all questions and other inquiries reasonably made or submitted by any of them), prior to and from time to time after the filing and effectiveness of such Registration Statement for the sole purpose of enabling such Investor and its accountants and attorneys to conduct such due diligence solely for the purpose of establishing a due diligence defense to underwriter liability under the 1933 Act; provided, however, that each Inspector shall agree to hold in strict confidence and shall not make any disclosure (except to such Investor) or use of any Record or other information which the Company determines in good faith to be confidential, and of which determination the Inspectors are so notified, unless (a) the disclosure of such Records is necessary to avoid or correct a misstatement or omission in any Registration Statement or is otherwise required under the 1933 Act, (b) the release of such Records is ordered pursuant to a final, non-appealable subpoena or order from a court or government body of competent jurisdiction, or (c) the information in such Records has been made generally available to the public other than by disclosure in violation of this Agreement or the Purchase Agreement. Each Investor agrees that it shall, upon learning that disclosure of such Records is sought in or by a court or governmental body of competent jurisdiction or through other means, give prompt notice to the Company and allow the Company, at its expense, to undertake appropriate action to prevent disclosure of, or to obtain a protective order for, the Records deemed confidential. Nothing herein (or in any other confidentiality agreement between the Company and any Investor) shall be deemed to limit the Investors’ ability to sell Registrable Securities in a manner which is otherwise consistent with applicable laws and regulations.

Notwithstanding the foregoing, the Company shall not disclose material nonpublic information to the Investors, or to advisors to or representatives of the Investors, unless prior to disclosure of such information the Company identifies such information as being material nonpublic information and provides the Investors, such advisors and representatives with the opportunity to accept or refuse to accept such material nonpublic information for review and any Investor wishing to obtain such information enters into an appropriate confidentiality agreement with the Company with respect thereto.

5. **Obligations of the Investors.**

(a) Each Investor shall execute and deliver a Selling Stockholder Questionnaire prior to the Closing Date. Each Investor shall additionally furnish in writing to the Company such other information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it, as shall be reasonably required to effect the registration of such Registrable Securities and shall execute such documents in connection with such registration as the Company may reasonably request. At least five (5) Business Days prior to the first anticipated filing date of any Registration Statement, the Company shall notify each Investor of the additional information the Company requires from such Investor if such Investor elects to have any of the Registrable Securities included in such Registration Statement (the “Registration Information Notice”). An Investor shall provide such information to the Company no later than two (2) Business Days following receipt of a Registration Information Notice if such Investor elects to have any of the Registrable Securities included in such Registration Statement. It is agreed and understood that it shall be a condition precedent to the obligations of the Company to complete the registration pursuant to this Agreement with respect to the Registrable Securities of a particular Investor that (i) such Investor furnish to the Company such information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it as shall be reasonably required to effect the effectiveness of the registration of such Registrable Securities, and (ii) the Investor execute such documents in connection with such registration as the Company may reasonably request, including, without limitation, a waiver of its registration rights hereunder to the extent an Investor elects not to have any of its Registrable Securities included in a Registration Statement.

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

(c) Each Investor agrees that, upon receipt of any notice from the Company of either (i) the commencement of an Allowed Delay pursuant to Section 2(c)(ii) or (ii) the happening of an event pursuant to Section 3(h) hereof, such Investor will immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement covering such Registrable Securities, until the Investor is advised by the Company that such dispositions may again be made.

(d) Each Investor covenants and agrees that it will comply with the prospectus delivery requirements of the 1933 Act as applicable to it or an exemption therefrom in connection with sales of Registrable Securities pursuant to any Registration Statement.

## 6. Indemnification.

(a) Indemnification by the Company. The Company will indemnify and hold harmless each Investor and its Affiliates and their respective officers, directors, members, employees and agents, successors and assigns, against any losses, claims, costs (including reasonable costs of preparation and reasonable attorneys', accountants' and experts' fees), expenses, judgements, fines, damages or liabilities, joint or several, interest, settlements or any other amounts to which they may become subject under the 1933 Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of, result from, relate to, or are based upon (i) any untrue statement or alleged untrue statement or omission or alleged omission of any material fact contained in any Registration Statement, any preliminary Prospectus or final Prospectus, or any amendment or supplement thereof or (ii) any violation or alleged violation by the Company or any of its Subsidiaries of the 1933 Act, the 1934 Act, any state securities law or any rule or regulation promulgated under the 1933 Act, the 1934 Act or any federal, state, foreign or common law rule or regulation in connection with such Registration Statement, disclosure document or related document or report or any offering covered by such Registration Statement; provided, however, that the Company will not be liable in any such case if and to the extent that any such loss, claim, damage or liability arises out of or is based upon (i) an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by such Investor or any such controlling person in writing specifically for use in such Registration Statement or Prospectus, (ii) the use by an Investor of an outdated or defective Prospectus after the Company has notified such Investor in writing that such Prospectus is outdated or defective or (iii) an Investor's failure to send or give a copy of the Prospectus or supplement (as then amended or supplemented), if required (and not exempted) to the Persons asserting an untrue statement or omission or alleged untrue statement or omission at or prior to the written confirmation of the sale of Registrable Securities.

(b) Indemnification by the Investors. Each Investor agrees, severally but not jointly, to indemnify and hold harmless, to the fullest extent permitted by law, the Company, its directors, officers, employees, stockholders and each person who controls the Company (within the meaning of the 1933 Act) against any losses, claims, damages, liabilities and expense (including reasonable attorney fees) resulting from any untrue statement of a material fact or any omission of a material fact required to be stated in any Registration Statement or Prospectus or preliminary Prospectus or amendment or supplement thereto or necessary to make the statements therein not misleading, to the extent, but only to the extent, that such untrue statement or omission is contained in any information regarding such Investor and furnished in writing by such Investor to the Company specifically for inclusion in such Registration Statement or Prospectus or amendment or supplement thereto. In no event shall the liability of an Investor be greater than the dollar amount of the proceeds received by such Investor upon the sale of the Registrable Securities included in such Registration Statement giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. Any person entitled to indemnification hereunder shall (i) give prompt notice to the indemnifying party of any claim with respect to which it seeks indemnification and (ii) permit such indemnifying party to assume the defense of such claim with counsel reasonably satisfactory to the indemnified party; provided, that any person entitled to indemnification hereunder shall have the right to employ separate counsel and to participate in the defense of such claim, but the fees and expenses of such counsel shall be at the expense of such person unless (A) the indemnifying party has agreed to pay such fees or expenses, (B) the indemnifying party shall have failed to assume the defense of such claim and employ counsel reasonably satisfactory to such person or (C) in the reasonable judgment of any such person, based upon written advice of its counsel, a conflict of interest exists between such person and the indemnifying party with respect to such claims (in which case, if the person notifies the indemnifying party in writing that such person elects to employ separate counsel at the expense of the indemnifying party, the indemnifying party shall not have the right to assume the defense of such claim on behalf of such person); and provided, further that the failure of any indemnified party to give notice as provided herein shall not relieve the indemnifying party of its obligations hereunder, except to the extent that such failure to give notice shall materially adversely affect the indemnifying party in the defense of any such claim or litigation. It is understood that the indemnifying party shall not, in connection with any proceeding in the same jurisdiction, be liable for fees or expenses of more than one separate firm of attorneys at any time for all such indemnified parties. No indemnifying party will, except with the consent of the indemnified party, which shall not be unreasonably withheld or conditioned, consent to entry of any judgment or enter into any settlement that does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect of such claim or litigation.

(d) Contribution. If for any reason the indemnification provided for in the preceding paragraphs (a) and (b) is unavailable to an indemnified party or insufficient to hold it harmless, other than as expressly specified therein, then the indemnifying party shall contribute to the amount paid or payable by the indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnified party and the indemnifying party, as well as any other relevant equitable considerations. No person guilty of fraudulent misrepresentation within the meaning of Section 11(f) of the 1933 Act shall be entitled to contribution from any person not guilty of such fraudulent misrepresentation. In no event shall the contribution obligation of a holder of Registrable Securities be greater in amount than the dollar amount of the proceeds received by it upon the sale of the Registrable Securities giving rise to such contribution obligation.

## 7. Miscellaneous.

(a) Amendments and Waivers. This Agreement may be amended only by a writing signed by the Company and each of the Investors. The Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company shall have obtained the written consent to such amendment, action or omission to act, of each Investor.

(b) Notices. All notices and other communications provided for or permitted hereunder shall be made as set forth in Section 9.4 of the Purchase Agreement.

(c) Assignments and Transfers by Investors. The provisions of this Agreement shall be binding upon and inure to the benefit of the Investors and their respective successors and assigns. An Investor may transfer or assign, in whole or from time to time in part, to one or more persons its rights hereunder in connection with the transfer of Registrable Securities by such Investor to such person, provided that (i) the Investor agrees in writing with the transferee or assignee to assign such rights and a copy of such agreement is furnished to the Company within a reasonable time after such assignment; (ii) the Company is, within a reasonable time after such transfer or assignment, furnished with written notice of (A) the name and address of such transferee or assignee and (B) the securities with respect to which such registration rights are being transferred or assigned; (iii) immediately following such transfer or assignment the further disposition of such securities by the transferee or assignee is restricted under the 1933 Act or applicable state securities laws; (iv) at or before the time the Company receives the written notice contemplated by clause (ii) of this sentence the transferee or assignee agrees in writing with the Company to be bound by all of the provisions contained herein; (v) such transfer shall have been made in accordance with the applicable requirements of the Purchase Agreement and (vi) unless the transferee or assignee is an Affiliate of, and after such transfer or assignment continues to be an Affiliate of, such Investor, the amount of Registrable Securities transferred or assigned to such transferee or assignee represents at least \$5.0 million of Registrable Securities (based on the then-current market price of the Common Stock).

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

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

(f) Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed via e-mail, which shall be deemed an original.

(g) Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

(h) Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof but shall be interpreted as if it were written so as to be enforceable to the maximum extent permitted by applicable law, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. To the extent permitted by applicable law, the parties hereby waive any provision of law which renders any provisions hereof prohibited or unenforceable in any respect.

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

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

(k) Governing Law; Consent to Jurisdiction; Waiver of Jury Trial. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof (other than sections 5-1401 and 5-1402 of the General Obligations Law). Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. EACH OF THE PARTIES HERETO WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY IN ANY LITIGATION WITH RESPECT TO THIS AGREEMENT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER.

(l) Filing Restrictions. The Company will register the resale of Registrable Securities representing Cut Back Shares on an effective Registration Statement prior to or concurrent with registering the resale of its securities by a selling security holder not holding Registrable Securities; provided, however, that this Section 7(l) shall not apply to Registrable Securities representing Cut Back Shares that were excluded from any such Registration Statement on account of the failure of a holder of such Registrable Securities to comply with the provisions hereof, including, but not limited to, the requirement of a holder to provide information required to be included in a Registration Statement.

(m) Independent Nature of Investors' Obligations and Rights. The obligations of each Investor hereunder are several and not joint with the obligations of any other Investor hereunder, and no Investor shall be responsible in any way for the performance of the obligations of any other Holder hereunder. Nothing contained herein or in any other agreement or document delivered at any closing, and no action taken by any Investor pursuant hereto or thereto, shall be deemed to constitute the Investors as a partnership, an association, a joint venture or any other kind of group or entity, or create a presumption that the Holders are in any way acting in concert or as a group or entity with respect to such obligations or the transactions contemplated by this Agreement or any other matters, and the Company acknowledges that the Investors are not acting in concert or as a group, and the Company shall not assert any such claim, with respect to such obligations or transactions. Each Investor shall be entitled to protect and enforce its rights, including without limitation the rights arising out of this Agreement, and it shall not be necessary for any other Investor to be joined as an additional party in any proceeding for such purpose. The use of a single agreement with respect to the obligations of the Company contained was solely in the control of the Company, not the action or decision of any Investor, and was done solely for the convenience of the Company and not because it was required or requested to do so by any Holder. It is expressly understood and agreed that each provision contained in this Agreement is between the Company and an Investor, solely, and not between the Company and the Investors collectively and not between and among Investors.

(n) Registration Rights. The Company covenants that it will not, and it will cause its Subsidiaries not to, grant any right of registration under the 1933 Act to any Person other than pursuant to this Agreement, unless the rights so granted to another Person do not limit or restrict the rights of the Investors hereunder.

(o) Gross-Up. For the avoidance of doubt, the amount of any liquidated damages or indemnification payments payable to an Investor pursuant to this Agreement shall include a gross-up to take into account such Investor's and its Affiliates' equity ownership in the Company such that, after payment of the grossed-up amount, the Investor has received the full value of such payment, taking into account the value of its equity ownership in the Company.

(p) No Recourse. Notwithstanding anything that may be expressed or implied in this Agreement, each Party covenants, agrees and acknowledges that no recourse under this Agreement or any documents or instruments delivered in connection with this Agreement shall be had against any of the Company's or an Investor's former, current or future direct or indirect equity holders, controlling persons, stockholders, directors, officers, employees, agents, Affiliates, members, financing sources, managers, general or limited partners or assignees (each, a "Related Person" and collectively, the "Related Persons"), in each case other than the Company, an Investor or any of their respective permitted assigns under this Agreement, whether by the enforcement of any assessment or by any legal or equitable proceeding, or by virtue of any applicable law, it being expressly agreed and acknowledged that no personal liability whatsoever shall attach to, be imposed on or otherwise be incurred by any of the Related Persons, as such, for any obligation or liability of the Company or an Investor under this Agreement or any documents or instruments delivered in connection herewith for any claim based on, in respect of or by reason of such obligations or liabilities or their creation; *provided, however,* nothing in this Section 7(o) shall relieve or otherwise limit the liability of the Company or an Investor, as such, for any breach or violation of its obligations under this Agreement or such agreements, documents or instruments. For the avoidance of doubt, none of the Parties will have any recourse, be entitled to commence any proceeding or make any claim under this Agreement or in connection with the transactions contemplated hereby except against any of the Parties or their respective successors and permitted assigns, as applicable.

[remainder of page intentionally left blank]

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

COMPANY:

ENTASIS THERAPEUTICS HOLDINGS INC.

By: \_\_\_\_\_

Name:

Title:

INVESTOR:

By: \_\_\_\_\_

Name:

Title: