

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 8-K

**Current Report Pursuant to
Section 13 or 15(d) of the
Securities Exchange Act of 1934**

Date of Report (Date of Earliest Event Reported): March 15, 2022

2seventy bio, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-40791

86-3658454
(IRS Employer
Identification No.)

60 Binney Street,

(Commission File Number)

Cambridge, MA

(Address of Principal Executive Offices)

02142

(Zip Code)

Registrant's Telephone Number, Including Area Code: (339) 499-9300

Not Applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instructions A.2. below):

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.0001 par value per share	TSVT	The NASDAQ Stock Market LLC

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

Emerging growth company X

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. O

Item 1.01 Entry into a Material Definitive Agreement

On March 15, 2022, 2seventy bio, Inc. (the “Company”) entered into share purchase agreements (the “Purchase Agreements”) with certain purchasers (the “Purchasers”).

Pursuant to the Purchase Agreements, the Purchasers agreed to subscribe for and purchase, and the Company agreed to issue and sell to the Purchasers, an aggregate of 13,934,427 shares of the Company’s common stock, par value \$0.0001 per share (the “Common Stock” and the shares of Common Stock issued and sold pursuant to the Purchase Agreements, the “Shares”), for a purchase price of \$12.20 per share, for aggregate gross proceeds to the Company of approximately \$170 million, before deducting offering commissions and estimated offering expenses payable by the Company (the “Private Placement”).

The closing of the Private Placement is anticipated to occur on March 17, 2022 (the “Closing Date”), subject to the satisfaction of customary closing conditions. Pursuant to the Purchase Agreements, the Company shall not enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock and other securities, subject to customary exceptions, until the earlier of (a) June 13, 2022 and (b) the date on which all Shares issued and sold by the Company to the Purchasers (subject to certain exceptions) have been registered for resale pursuant to an effective registration statement in accordance with the terms of the Registration Rights Agreement, as defined below (the “Lock-Up Period”). At, and as a condition to, the closing of the Private Placement, the Company and the Purchasers will enter into a registration rights agreement (the “Registration Rights Agreement”). Pursuant to the Registration Rights Agreement, the Company will prepare and file a registration statement with the Securities and Exchange Commission (the “SEC”) within 45 calendar days following the Closing Date, and will use its reasonable best efforts to cause this registration statement to be declared effective by the SEC within 30 calendar days thereafter (or within 45 calendar days thereafter if the SEC reviews the registration statement). The Company will also agree among other things, to indemnify the Purchasers, their officers, directors, members, employees and agents, successors and assigns under the registration statement from certain liabilities and pay all fees and expenses (excluding any legal fees of the selling holder(s), and any underwriting discounts and selling commissions) incident to the Company’s obligations under the Registration Rights Agreement. Additionally, at, and as a condition to, the closing of the Private Placement, the directors and executive officers of the Company will enter into agreements, in the form attached to the Purchase Agreements, not to dispose of any shares of Common Stock and other securities of the Company that they own during the Lock-Up Period, subject to customary exceptions (the “Lock-Up Agreements”).

The Private Placement is exempt from registration pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended (the “Securities Act”) and Rule 506(b) of Regulation D promulgated by the SEC thereunder, as a transaction by an issuer not involving a public offering. The Purchasers have acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends have been affixed to the securities issued in this transaction.

The foregoing summaries of the Private Placement, the Purchase Agreements, the Registration Rights Agreement and the Lock-Up Agreements do not purport to be complete and are qualified in their entirety by reference to the form of Purchase Agreements (including the form of Lock-Up Agreement attached thereto) and form of Registration Rights Agreement, which are filed as Exhibit 10.1 and Exhibit 10.2, respectively, to this Current Report on Form 8-K and are incorporated herein by reference.

Item 2.02 Results of Operations and Financial Condition.

On March 16, 2022, the Company issued a press release announcing the Private Placement. In such press release, the Company disclosed that the amount of cash, cash equivalents and marketable securities it had on hand as of December 31, 2021 was \$362.2 million. This information is unaudited and does not present all information necessary for an understanding of the Company’s financial condition as of December 31, 2021 and its results of operations for the twelve months ended December 31, 2021. The Company expects to announce its full results for the twelve months ended December 31, 2021 on or before March 31, 2022.

Item 3.02 Unregistered Sales of Equity Securities.

To the extent required by Item 3.02 of Form 8-K, the information regarding the Private Placement set forth under Item 1.01 of this Current Report on Form 8-K is incorporated by reference in this Item 3.02. The securities issued and sold in the Private Placement are being offered pursuant to Section 4(a)(2) of the Securities Act, and Rule 506(b) of Regulation D as promulgated by the SEC under the Securities Act. The Company relied on this exemption from registration for the Private Placement based in part on the representations made by the Purchasers, including the representations with respect to each Purchaser's investment intent. The securities were not issued through any general solicitation or advertisement. A Form D filing will be made following the closing of the Private Placement in accordance with the requirements of Regulation D.

Item 7.01 Regulation FD Disclosure.

On March 16, 2022, the Company issued a press release announcing the Private Placement. A copy of the press release is attached hereto as Exhibit 99.1 and incorporated by reference herein. The information in this Item 7.01, including Exhibit 99.1, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Note Regarding Forward-Looking Statements

This Current Report on Form 8-K contains forward-looking statements that are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including without limitation statements regarding the expected closing of the Private Placement, anticipated proceeds from the Private Placement, and the Company's plans to file a registration statement to register the resale of the Shares to be issued and sold in the Private Placement. The use of words such as "anticipate," "believe," "continue," "could," "endeavor," "estimate," "expect," "anticipate," "intend," "may," "might," "plan," "potential," "predict," "project," "seek," "should," "target," "will" or "would" or the negative of such words or other similar expressions can be used to identify forward-looking statements. Each forward-looking statement is subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statement. These and other risks and uncertainties are described in additional detail in the section entitled "Risk Factors" in the Company's Quarterly Report on Form 10-Q filed December 1, 2021 and its other filings made with the SEC from time to time. Although the Company's forward-looking statements reflect the good faith judgment of its management, these statements are based only on facts and factors currently known by the Company. As a result, you are cautioned not to rely on these forward-looking statements. Any forward-looking statement made in this Current Report on Form 8-K speaks only as of the date on which it is made. Except as required by applicable law, the Company undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future developments or otherwise.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
10.1	Form of Share Purchase Agreement
10.2	Form of Registration Rights Agreement
99.1	Press release issued by <u>2seventy bio, Inc.</u> on March 16, 2022
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

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

Date: March 16, 2022

2seventy bio, Inc.

By: /s/ Nick Leschly
Nick Leschly
Chief Executive Officer

SHARE PURCHASE AGREEMENT

This Share Purchase Agreement (this “*Agreement*”) is dated as of March 15, 2022, by and among 2seventy bio, Inc., a Delaware corporation (the “*Company*”), and the purchaser identified on the signature page hereto (including its successors and assigns, a “*Purchaser*”).

RECITALS

WHEREAS, the Company and the Purchaser are 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 “*Securities Act*”), and Rule 506(b) of Regulation D (“*Regulation D*”) as promulgated by the United States Securities and Exchange Commission (the “*Commission*”) under the Securities Act;

WHEREAS, the Purchaser, severally and not jointly with the Other Purchasers (as defined below), wishes to purchase, and the Company wishes to sell, upon the terms and conditions stated in this Agreement, that aggregate number of shares of the Company’s common stock, par value \$0.0001 per share (the “*Common Stock*”) as set forth below the Purchaser’s name on the signature page of this Agreement;

WHEREAS, the shares of Common Stock to be sold pursuant to the terms of this Agreement are sometimes referred to herein as the “*Purchased Shares*”; and

WHEREAS, substantially concurrently with the execution of this Agreement, the Company is entering into separate subscription agreements with certain other purchasers (the “*Other Purchasers*” and such other subscription agreements, the “*Other Subscription Agreements*”) acquiring shares of Common Stock at the same price per share set forth in this Agreement;

WHEREAS, contemporaneously with the execution and delivery of this Agreement, the Purchaser, the Other Purchasers, and the Company are executing and delivering a Registration Rights Agreement, substantially in the form attached hereto as Exhibit A (the “*Registration Rights Agreement*”), pursuant to which, among other things, the Company will agree to provide certain registration rights with respect to the Purchased Shares under the Securities Act and the rules and regulations promulgated thereunder and applicable state securities laws.

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and the Purchaser hereby agree as follows:

ARTICLE I. DEFINITIONS

Definitions. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms shall have the meanings indicated in this Article I:

“*8-K Filing*” has the meaning set forth in Section 4.5.

“*Action*” means any action, suit, inquiry, notice of violation, arbitration, complaint, proceeding (including any partial proceeding such as a deposition) or investigation pending or, to the Company’s Knowledge, threatened in writing against the Company, any Subsidiary or any of their respective properties or any officer, director or employee of the Company or any Subsidiary acting in his or her capacity as an officer, director or employee before or by any federal, state, county, local or foreign court, arbitrator, governmental or administrative agency, regulatory authority, stock market, stock exchange or trading facility.

“*Affiliate*” means, with respect to any Person, any other Person that, directly or indirectly through one or more intermediaries, Controls, is controlled by or is under common control with such Person, as such terms are used in and construed under Rule 405 under the Securities Act. With respect to the Purchaser, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Purchaser will be

deemed to be an Affiliate of such Purchaser. For the avoidance of doubt, with respect to any Purchaser that is an investment fund or other investment vehicle, such Purchaser shall be deemed not to be an Affiliate of (i) any direct or indirect portfolio company of such Purchaser or its Affiliates or (ii) any direct or indirect limited partner of any such Purchaser or its Affiliates.

“*Agreement*” shall have the meaning ascribed to such term in the Preamble.

“*bluebird bio*” means bluebird bio, Inc.

“*Board of Directors*” means the board of directors of the Company.

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

“*Bylaws*” means the Company’s Bylaws as amended and restated and as in effect on the date hereof.

“*Certificate of Incorporation*” means the Company’s certificate of incorporation, as amended and restated and as in effect on the date hereof.

“*Closing*” means the closing of the purchase and sale of the Purchased Shares pursuant to this Agreement.

“*Closing Date*” means the Trading Day when all of the Transaction Documents have been executed and delivered by the applicable parties thereto, and all of the conditions precedent to (i) the Purchaser’s obligations to pay the Subscription Amount and (ii) the Company’s obligations to deliver the Purchased Shares, in each case, have been satisfied or waived, but in no event later than the second (2nd) Trading Day following the date hereof.

“*Code*” means the U.S. Internal Revenue Code of 1986, as amended (including any successor statute).

“*Commission*” has the meaning set forth in the Recitals.

“*Common Stock*” has the meaning set forth in the Recitals, and also includes any securities into which the Common Stock may hereafter be reclassified or changed.

“*Common Stock Equivalents*” means any securities into which the shares of Common Stock outstanding as of the date hereof are reclassified and any 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.

“*Company*” shall have the meaning ascribed to such term in the Preamble.

“*Company Deliverables*” has the meaning set forth in Section 2.2(a).

“*Company’s Knowledge*” means with respect to any statement made to the knowledge of the Company, that the statement is based upon the actual knowledge, after reasonable inquiry, of the executive officers 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.

“*Distribution*” has the meaning set forth in the Tax Matters Agreement.

“*Environmental Laws*” has the meaning set forth in Section 3.1(n).

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

“*Exempt Issuance*” means the issuance of (a) the Purchased Shares to be issued and sold hereunder and the shares of Common Stock to be issued and sold to the Other Purchasers, (b) shares of Common Stock, options, restricted stock units or other equity awards granted to employees, officers, directors or consultants of the Company pursuant to the Stock Plans, (b) securities upon the exercise or exchange of or conversion of any securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of this Agreement, including for the avoidance of doubt, in connection with the Company’s outstanding pre-funded warrants and equity awards, (c) securities issued in connection with any debt financing transaction or royalty financing transaction or bona fide commercial relationship (including joint ventures, marketing or distribution arrangements, collaboration agreements or intellectual property license agreements) and (e) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company, provided that such securities are issued as “restricted securities” (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the Lock-Up Period. A transaction in which the Company issues securities primarily for the purpose of raising capital to an entity whose primary business is investing in securities shall not be an Exempt Issuance.

“*GAAP*” has the meaning set forth in Section 3.1(g).

“*Indemnified Person*” has the meaning set forth in Section 4.6(b).

“*Liens*” has the meaning set forth in Section 3.1(o).

“*Lock-Up Agreement*” means the Lock-Up Agreement, dated as of the date hereof, by and among the Company and the Company’s directors and officers, in the form of Exhibit B attached hereto.

“*Losses*” has the meaning set forth in Section 4.6(a).

“*Material Adverse Effect*” means any material adverse effect on (i) the results of operations, assets, business or financial condition of the Company and its Subsidiaries, taken as a whole, other than any material adverse effect that resulted primarily from (A) any change in the United States or foreign economies or securities or financial markets in general that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, (B) any change that generally affects the industry in which the Company and its Subsidiaries operate that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, (C) any change arising in connection with earthquakes, hostilities, acts of war, sabotage or terrorism or military actions or any escalation or material worsening of any such hostilities, acts of war, sabotage or terrorism or military actions, (D) the effect of any change in applicable laws or accounting rules that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, or (E) any change resulting from compliance with terms of this Agreement or the consummation of the transactions contemplated by this Agreement, (ii) the enforceability of any Transaction Document, or (iii) the Company’s ability to perform on a timely basis its obligations under any Transaction Document to be performed as of the date of determination.

“*Other Purchaser*” has the meaning ascribed to such term in the Preamble.

“*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 Agent*” and “*Placement Agents*” shall have the meaning set forth in Section 4.13.

“*Principal Trading Market*” means the Trading Market on which the Common Stock is primarily listed on and quoted for trading, which, as of the date of this Agreement and the Closing Date, shall be the Nasdaq Global Select Market.

“*Proceeding*” means an action, claim, suit, investigation or legal proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened.

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

“*Purchaser*” has the meaning ascribed to such term in the Preamble.

“*Purchaser Deliverables*” has the meaning set forth in Section 2.2(b).

“*Purchaser Party*” has the meaning set forth in Section 4.6(a).

“*Purchaser Related Party*” has the meaning set forth in Section 6.19.

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

“*Registration Statement*” means a registration statement meeting the requirements set forth in the Registration Rights Agreement and covering the resale by Purchaser and the Other Purchasers of the Registrable Shares (as defined in the Registration Rights Agreement).

“*Regulation D*” has the meaning set forth in the Recitals.

“*Rule 144*” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

“*Rules and Regulations*” has the meaning set forth in Section 3.2(a).

“*SEC Documents*” has the meaning set forth in Section 3.1(g).

“*Securities Act*” has the meaning set forth in the Recitals.

“*Stock Plans*” has the meaning set forth in Section 3.1(c).

“*Subscription Amount*” means the aggregate amount to be paid for the Purchased Shares purchased hereunder as indicated on the signature page to this Agreement.

“*Subsidiary*” means any entity in which the Company, directly or indirectly, owns sufficient capital stock or holds a sufficient equity or similar interest such that it is consolidated with the Company in the financial statements of the Company.

“*Tax Matters Agreement*” means the Tax Matters Agreement by and between the Company and bluebird bio, dated as of November 3, 2021.

“*Trading Day*” means (i) a day on which the Common Stock is listed or quoted and traded on its Principal Trading Market (other than the OTC Bulletin Board), or (ii) if the Common Stock is not listed on a Trading Market (other than the OTC Bulletin Board), a day on which the Common Stock is traded in the over-the-counter market, as reported by the OTC Bulletin Board, or (iii) if the Common Stock is not quoted on any Trading Market, a day on which the Common Stock is quoted in the over-the-counter market as reported in the “pink sheets” by Pink Sheets LLC (or any similar organization or agency succeeding to its functions of reporting prices); *provided*, that in the event that the Common Stock is not listed or quoted as set forth in (i), (ii) or (iii) hereof, then Trading Day shall mean a Business Day.

“*Trading Market*” means whichever of the New York Stock Exchange, the NYSE Amex, the Nasdaq Global Select Market, the Nasdaq Global Market, the Nasdaq Capital Market or the OTC Bulletin Board on which the Common Stock is listed or quoted for trading on the date in question.

“*Transaction Documents*” means this Agreement, the Registration Rights Agreement, the schedules and exhibits attached thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated hereunder.

“*Transfer Agent*” means American Stock Transfer & Trust Company, or any successor transfer agent for the Company.

ARTICLE II. PURCHASE AND SALE

2.1 Closing.

(a) Purchase of Securities. Subject to the terms and conditions set forth in this Agreement, at the Closing, the Company shall issue and sell to Purchaser, and Purchaser shall purchase from the Company, the number of shares of Purchased Shares as indicated on Purchaser’s signature page to this Agreement at a per share price equal to \$12.20.

(b) Closing. The Closing of the purchase and sale of the Purchased Shares shall take place remotely on the Closing Date, or such other date as the parties hereto mutually agree, via the exchange of executed documents and funds.

(c) Payment. At the Closing, the Purchaser shall deliver the Subscription Amount in immediately available funds by wire transfer to a bank account designated by the Company.

(d) Delivery of Purchased Shares. At the Closing, the Company shall deliver or cause to be delivered to the Purchaser a number of Purchased Shares, registered in the name of the Purchaser (or its nominee in accordance with such Purchaser’s delivery instructions), equal to the number of Purchased Shares indicated on the Purchaser’s signature page to this Agreement. The Purchased Shares shall be delivered via a book-entry record through the Transfer Agent, and the Company shall cause the Transfer Agent to deliver to the Purchaser, promptly following the Closing, a copy of the records of the Transfer Agent showing the Purchaser as the owner of the number of Purchased Shares indicated on the Purchaser’s signature page to this Agreement.

2.2 Closing Conditions; Closing Deliveries.

(a) Company Closing Deliverables. At or prior to the Closing, the Company shall issue, deliver or cause to be delivered to the Purchaser the following (the “*Company Deliverables*”):

(i) the Registration Rights Agreement, duly executed by the Company;

(ii) certificate(s) or book-entry shares evidencing the Purchased Shares subscribed for by the Purchaser hereunder, registered in the name of the Purchaser (or its nominee in accordance with such Purchaser’s delivery instructions);

(iii) a legal opinion of Goodwin Procter LLP, dated as of the Closing Date, addressed to the Purchaser and the Other Purchasers, in form and substance reasonably satisfactory to the Purchaser and the Other Purchasers;

(iv) a certificate of the Secretary of the Company, dated as of the Closing Date, in form and substance reasonably satisfactory to the Purchaser and the Other Purchasers, (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 Purchased Shares, (b) certifying the current versions of the Certificate of Incorporation and Bylaws and (c) certifying as to the signatures and authority of persons signing the Transaction Documents and related documents on behalf of the Company;

(v) a certificate of an officer of the Company, dated as of the Closing Date, certifying the fulfillment of the conditions specified in Sections 2.3(a), 2.3(b), 2.3(c), 2.3(d) and 2.3(e), in form and substance reasonably satisfactory to the Purchaser and the Other Purchasers;

(vi) the Lock-Up Agreements; and

(vii) a certificate evidencing the good standing of the Company in Delaware issued by the Secretary of State of Delaware, as of a date within five Business Days of the Closing Date.

(b) Purchaser Deliverables. At or prior to the Closing, the Purchaser shall deliver or cause to be delivered to the Company the following (the "Purchaser Deliverables"):

(i) the Registration Rights Agreement, duly executed by the Purchaser;

(ii) its Subscription Amount, in U.S. dollars and in immediately available funds, in the amount indicated below the Purchaser's name on the applicable signature page hereto by wire transfer in accordance with the Company's written instructions; and

(iii) an Internal Revenue Service Form W-9 (or any successor form), duly and validly executed by the Purchaser.

2.3 Conditions Precedent to the Obligations of Purchaser. The obligation of the Purchaser to acquire the Purchased Shares at the Closing is subject to the fulfillment to the Purchaser's satisfaction, on or prior to the Closing Date, of each of the following conditions, any of which may be waived by the Purchaser (as to itself only and not as to any Other Purchaser):

(a) Representations and Warranties. The representations and warranties of the Company contained herein shall be true and correct in all material respects as of the date when made and as of the Closing Date, as though made on and as of such date, except for such representations and warranties that speak as of a specific date, which shall be true and correct in all material respects as of such date; *provided, however*, any representations or warranties qualified as to materiality or Material Adverse Effect shall be true and correct in all respects.

(b) Performance. The Company shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by it at or prior to the Closing.

(c) No Injunction. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority of competent jurisdiction that prohibits the consummation of any of the transactions contemplated by the Transaction Documents.

(d) Consents. The Company shall have obtained in a timely fashion any and all consents, permits, approvals, registrations and waivers necessary for consummation of the purchase and sale of the Purchased Shares, all of which shall be and remain so long as necessary in full force and effect.

(e) No Suspensions of Trading in Common Stock; Listing. The Common Stock (i) shall be approved for quotation or listing on the Principal Trading Market and (ii) shall not have been suspended, as of the Closing Date, by the Commission or the Principal Trading Market from trading on the Principal Trading Market. The Company shall have filed with the Principal Trading Market a Notification Form: Listing of Additional Shares for the listing of the Purchased Shares.

(f) Company Deliverables. The Company shall have delivered the Company Deliverables in accordance with Section 2.2(a).

(g) No Material Adverse Effect. Since the date of this Agreement, there shall not have occurred a Material Adverse Effect.

2.4 Conditions Precedent to the Obligations of the Company. The Company's obligation to sell and issue Purchased Shares to the Purchaser 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:

(a) Representations and Warranties. The representations and warranties made by the Purchaser in Section 3.2 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) as of the date when made, and as of the Closing Date as though made on and as of such date, except for such representations and warranties that speak as of a specific date which shall be true and correct in all material respects as of such date.

(b) Performance. The Purchaser shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by the Purchaser at or prior to the Closing Date.

(c) Purchaser's Deliverables. The Purchaser shall have delivered the Purchaser Deliverables in accordance with Section 2.2(b).

ARTICLE III. REPRESENTATIONS AND WARRANTIES

On or prior to the date hereof, the Company delivered to Purchaser and Purchaser delivered to the Company a letter setting forth items the disclosure of which is necessary in response to an express disclosure requirement contained in a provision hereof.

3.1 Representations and Warranties of the Company. The Company hereby represents and warrants as of the date hereof and the Closing Date (except for the representations and warranties that speak as of a specific date, which shall be made as of such date and except as set forth in the SEC Documents), to the Purchaser and the Placement Agent that:

(a) Organization and Qualification. The Company and each of its Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite corporate power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any of its Subsidiaries is in violation or default of any of the provisions of its respective certificate of incorporation, bylaws or other organizational or charter documents. Each of the Company and its Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not reasonably be expected to have a Material Adverse Effect and no proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification. Each of the Company's Subsidiaries is listed on Schedule 3.1(a).

(b) Authorization; Enforcement; Validity. (i) The Company has the requisite corporate power and authority to enter into and perform its obligations under this Agreement and each other Transaction Documents, and to issue the Purchased Shares in accordance with the terms hereof and thereof, (ii) the execution and delivery of this Agreement and each of the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby, including without limitation, the issuance of the Purchased Shares pursuant to this Agreement, have been duly authorized by the Company's Board of Directors and no further consent or authorization is required by the Company, its Board of Directors or its stockholders, (iii) this Agreement has been and each of the other Transaction Documents shall be on the Closing Date, duly executed and delivered by the Company and (iv) this Agreement constitutes, and each other Transaction Document upon its execution on behalf of the Company shall constitute, the valid and binding obligations of the Company enforceable against the Company in accordance with their terms, except as such enforceability may be limited by general principles of equity or

applicable bankruptcy, insolvency, reorganization, moratorium, liquidation or similar laws relating to, or affecting generally, the enforcement of creditors' rights and remedies. The Board of Directors of the Company has approved and authorized this Agreement, the other Transaction Documents and the transactions contemplated hereby and thereby. Such resolutions are valid, in full force and effect and have not been materially modified or supplemented in any respect. Except as set forth in this Agreement, no other approvals or consents of the Company's Board of Directors, any authorized committee thereof, and/or stockholders is necessary under applicable laws and the Certificate of Incorporation, and/or the Bylaws, to authorize the execution and delivery of this Agreement or any of the transactions contemplated hereby, including, but not limited to, the issuance of the Purchased Shares.

(c) Capitalization. As of the date hereof, the authorized capital stock of the Company is set forth in the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2021, as filed with the Commission on December 1, 2021. The Company's disclosure of its issued and outstanding capital stock in its most recent SEC Document containing such disclosure was accurate in all material respects as of the date indicated in such SEC Document. All of the issued and outstanding shares of capital stock of the Company have been duly authorized and validly issued, are fully paid and are non-assessable. None of the issued and outstanding shares of the Company were issued in violation of any preemptive rights. As of the date hereof, and except as disclosed in the SEC Documents or as provided in any of the Transaction Documents, (i) no shares of the Company's capital stock are subject to preemptive rights or any other similar rights or any liens or encumbrances suffered or permitted by the Company, (ii) there are no outstanding debt securities, (iii) except for outstanding securities of the Company under the equity incentive plans of the Company disclosed in the SEC Documents (the "Stock Plans"), there are no outstanding options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, any shares of capital stock of the Company or any of its Subsidiaries, or contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to issue additional shares of capital stock of the Company or any of its Subsidiaries or options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, any shares of capital stock of the Company or any of its Subsidiaries, (iv) there are no agreements or arrangements under which the Company or any of its Subsidiaries is obligated to register the sale of any of their securities under the Securities Act (except the Registration Rights Agreement), (v) there are no outstanding securities or instruments of the Company or any of its Subsidiaries which contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to redeem a security of the Company or any of its Subsidiaries, (vi) there are no securities or instruments containing anti-dilution or similar provisions that will be triggered by the issuance of the Purchased Shares as described in this Agreement and (vii) the Company does not have any stock appreciation rights or "phantom stock" plans or agreements or any similar plan or agreement. The Company has made available to the Purchaser true and correct copies of the Certificate of Incorporation and Bylaws, and summaries of the material terms of all securities convertible into or exercisable for Common Stock, if any, (other than outstanding securities of the Company under the Stock Plans) and copies of any documents containing the material rights of the holders of such securities in respect thereto that are not disclosed in the SEC Documents.

(d) Issuance, Sale and Delivery of the Purchased Shares. The Purchased Shares being purchased hereunder have been duly authorized and, when issued, delivered and paid for in the manner set forth in this Purchase Agreement will be validly issued, fully paid and nonassessable and free and clear of all liens, encumbrances and rights of refusal of any kind and the Purchaser shall be entitled to all rights accorded to a holder of Common Stock. Except as disclosed in the SEC Documents and for the rights described in this Purchase Agreement, no stockholder of the Company has any right to require the Company to register the sale of any capital stock owned by such stockholder under the Registration Statement. No further approval or authority of the stockholders or the Board of Directors of the Company will be required for the issuance and sale of the Purchased Shares to be sold by the Company as contemplated herein.

(e) No Conflicts. The execution, delivery and performance of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated hereby and thereby will not (i) result in a violation of the Certificate of Incorporation, any certificate of designation, preferences and rights of any outstanding series of preferred stock of the Company or the Bylaws 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 the Company or any of its Subsidiaries is a party, or result in a violation of any law, rule, regulation, order, judgment or

decree (including federal and state securities laws and regulations and the rules and regulations of the Principal Trading Market applicable to the Company or any of its Subsidiaries) or by which any property or asset of the Company or any of its Subsidiaries is bound or affected, except in the case of conflicts, defaults, terminations, amendments, accelerations, cancellations and violations under clause (ii), which could not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. Neither the Company nor its Subsidiaries is in violation of any term of or in default under its Certificate of Incorporation, any certificate of designation, preferences and rights of any outstanding series of preferred stock of the Company or Bylaws or their organizational charter or bylaws, respectively. Neither the Company nor any of its Subsidiaries is in violation of any term of or is in default under any material contract, agreement, mortgage, indebtedness, indenture, instrument, judgment, decree or order or any statute, rule or regulation applicable to the Company or its Subsidiaries, except for possible conflicts, defaults, terminations or amendments that could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The business of the Company and its Subsidiaries is not being conducted, and shall not be conducted, in violation of any law, ordinance or regulation of any governmental entity, except for possible violations, the sanctions for which either individually or in the aggregate could not reasonably be expected to have a Material Adverse Effect. Except as specifically contemplated by this Agreement and as required under the Securities Act or applicable state securities laws and the rules and regulations of the Principal Trading Market, the Company is not required to obtain any consent, authorization or order of, or make any filing or registration with, any court or governmental agency or any regulatory or self-regulatory agency in order for it to execute, deliver or perform any of its obligations under or contemplated by the Transaction Documents in accordance with the terms hereof or thereof. Except as set forth elsewhere in this Agreement, all consents, authorizations, orders, filings and registrations which the Company is required to obtain pursuant to the preceding sentence shall be obtained or effected on or prior to the Closing Date. The Company has been in compliance with the applicable continued listing requirements of the Principal Trading Market and the Company has not received nor delivered any notices related to non-compliance with the rules of the Principal Trading Market. The Principal Trading Market has not commenced any delisting proceedings against the Company and, to the Company's Knowledge, there is no reasonable basis for the delisting of the Common Stock from the Principal Trading Market.

(f) SEC Documents; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the twelve months preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the "*SEC Documents*") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Documents prior to the expiration of any such extension. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder. None of the SEC Documents, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Documents 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. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("*GAAP*"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments. The Company has received no notices or correspondence from the SEC for the one year preceding the date hereof. To the Company's Knowledge, the SEC has not commenced any enforcement proceedings against the Company or any of its Subsidiaries.

(g) Absence of Certain Changes. Since September 30, 2021, there has been no material adverse change in the business, properties, operations, financial condition or results of operations of the Company or its Subsidiaries. The Company has not taken any steps, and does not currently expect to take any steps, to seek protection pursuant to any bankruptcy law nor does the Company or any of its Subsidiaries have any knowledge or reason to believe that its creditors intend to initiate involuntary bankruptcy or insolvency proceedings. The Company is financially solvent and is generally able to pay its debts as they become due. No event, liability, fact, circumstance,

occurrence or development (including, without limitation, any fundamental transaction, change of control or similar event under any agreement (including, without limitation, any employment agreement)) has occurred or exists, or is reasonably expected to occur or exist, with respect to the Company or its business, properties, operations, assets or financial condition that, but for the passage of time, would be required to be disclosed by the Company under applicable securities laws at the time this representation is made that has not been publicly disclosed at least one Trading Day prior to the date that this representation is made.

(h) Absence of Change of Control. The execution, delivery and performance by the Company of this Agreement and the other Transaction Documents to which it is a party, and the issuance of the Purchased Shares on the Closing Date do not and will not result in any fundamental transaction, change of control or similar event, the requirement to make any payment or adjustment or issue any shares of Common Stock or other securities with respect to any fundamental transaction, change of control or similar event, or an event that with the passage of time could result in a fundamental transaction, change of control or similar event under any agreement (including, without limitation, any employment agreement), outstanding security (including, without limitation, any option or warrant to purchase Common Stock), other instrument or under any applicable law and regulations (including the rules of the Principal Trading Market).

(i) Absence of Litigation. There is no action, suit, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the Company's Knowledge or to the knowledge of any of its Subsidiaries, threatened against or affecting the Company, the Common Stock or any of the Company's or its Subsidiaries' officers or directors in their capacities as such, which could reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(j) Acknowledgment Regarding Purchaser's Status. The Company acknowledges and agrees that the Purchaser is acting solely in the capacity of arm's length purchaser with respect to the Transaction Documents and the transactions contemplated hereby and thereby. The Company further acknowledges that the Purchaser is not 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 hereby and thereby and any advice given by the Purchaser or any of its representatives or agents in connection with the Transaction Documents and the transactions contemplated hereby and thereby is merely incidental to the Purchaser's purchase of the Purchased Shares. The Company further represents to the Purchaser that the Company's decision to enter into the Transaction Documents has been based solely on the independent evaluation by the Company and its representatives and advisors.

(k) No Aggregated Offering. Neither the Company, nor or any of its affiliates, nor any Person acting on their behalf has, directly or indirectly, made any offers or sales of any security or solicited offers to buy any security, under circumstances that would (i) 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 Purchased Shares under the Securities Act or (ii) cause this offering of the Purchased Shares to be aggregated with prior offerings by the Company in a manner that would require stockholder approval pursuant to the rules of the Principal Trading Market on which any of the securities of the Company are listed or designated. The issuance and sale of the Purchased Shares hereunder does not contravene the rules and regulations of the Principal Trading Market. Assuming the accuracy of the representations and warranties of the Purchaser set forth in Section 3.2, the offer and sale of the Purchased Shares to the Purchaser as contemplated hereby is exempt from the registration requirements of the Securities Act.

(l) Intellectual Property Rights. The Company and its Subsidiaries own or possess adequate rights or licenses to use all material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and rights necessary to conduct their respective businesses as now conducted. None of the Company's material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets or other intellectual property rights have expired or terminated, or, by the terms and conditions thereof, could expire or terminate within two years from the date of this Agreement except as disclosed in the SEC Documents. To the Company's Knowledge, neither the Company nor the Subsidiaries have infringed on any material trademark, trade name rights, patents, patent rights, copyrights, inventions, licenses, service names, service marks, service mark registrations, trade secret or other similar rights of others, or of any such development of similar or identical trade secrets or technical information by others, and there is no claim,

action or proceeding being made or brought against, or to the Company's Knowledge, being threatened against, the Company or its Subsidiaries regarding trademark, trade name, patents, patent rights, invention, copyright, license, service names, service marks, service mark registrations, trade secret or other infringement, which could reasonably be expected to have a Material Adverse Effect.

(m) Environmental Laws. To the Company's Knowledge, the Company and its Subsidiaries (i) are in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("*Environmental Laws*"), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where, in each of the three foregoing clauses, the failure to so comply could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(n) Title. The Company and its Subsidiaries have good and marketable title in fee simple to all real property owned by them and good and marketable title in all personal property owned by them that is material to the business of the Company and its Subsidiaries, in each case free and clear of all liens, encumbrances and defects ("*Liens*"), except for Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and its Subsidiaries and Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and its Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and its Subsidiaries are in compliance with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company and its Subsidiaries.

(o) Insurance. The Company and each of its Subsidiaries are insured by insurers of recognized financial responsibility against such Losses and risks and in such amounts as management of the Company believes to be prudent and customary in the businesses in which the Company and its Subsidiaries are engaged. Neither the Company nor any such Subsidiary has been refused any insurance coverage sought or applied for and neither the Company nor any such Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not materially and adversely affect the condition, financial or otherwise, or the earnings, business or operations of the Company and its Subsidiaries, taken as a whole.

(p) Regulatory Permits. The Company and its Subsidiaries possess all material certificates, authorizations and permits issued by the appropriate federal, state or foreign regulatory authorities necessary to conduct their respective businesses, and neither the Company nor any such Subsidiary has received any notice of proceedings relating to the revocation or modification of any such certificate, authorization or permit.

(q) Tax Status. The Company and each of its Subsidiaries has duly and timely made or filed (taking into account applicable extensions) all U.S. federal, state, local and non-U.S. income and all other material tax returns, reports and declarations required to have been made or filed by any jurisdiction to which it is subject and such returns, reports and declarations are true, correct and complete in all material respects, has duly and timely paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations, except those being contested in good faith and for which the Company has set aside on its books provisions reasonably adequate for the payment thereof as determined in accordance with GAAP, and has in effect no waivers of applicable statutes of limitations with respect to taxes for any year. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction. The Company and each Subsidiary has not reported any material uncertain tax positions pursuant to FASB Interpretation 48 (FIN 48), "Accounting for Uncertainty in Income Taxes" on the Company's financial statements, and the officers of the Company know of no basis for any such tax reporting positions. There have been no examinations or audits of any tax returns, reports or declarations of the Company or its Subsidiaries by any applicable U.S. federal, state, local or non-U.S. governmental agency and, to the Company's Knowledge, there are no currently or proposed examinations or audits. The Company and its Subsidiaries have no liability for taxes of any person (other than bluebird bio, the Company and their subsidiaries) arising from the application of U.S. Treasury Regulations Section 1.1502-6 or any similar provision of state, local or non-U.S. Law, or as a transferee or successor or member of an affiliated, consolidated, combined or unitary group. The Company and its Subsidiaries are not a party to, are not bound by, and

do not have any obligation under, any tax sharing, tax indemnity or tax allocation agreement or similar agreement or arrangement (to which any person other than the Company and its Subsidiaries is a party) other than obligations in agreements or arrangements not primarily related to taxes, except for the Tax Matters Agreement. The Company and its Subsidiaries have not been party to any transaction that is a “prohibited tax shelter transaction” as defined in Section 4965(e) of the Code or any “reportable transaction” (other than any “loss transaction”) within the meaning of U.S. Treasury regulations Section 1.6011-4(b). The Company is not, nor does it reasonably expect to become, a “United States real property holding corporation” within the meaning of Section 897(c) of the Code. The Company is not, nor does it reasonably expect to become, a “disqualified investment corporation” within the meaning of Section 355(g) of the Code or a “real estate investment trust” within the meaning of Section 355(h) of the Code. None of the Company or any of its Subsidiaries has taken any action that could reasonably be expected to prevent the Distribution from qualifying as a distribution eligible for non-recognition under Sections 355(a) of the Code. Other than as part of the Distribution, within the past five years, none of the Company or its Subsidiaries has been either a “distributing corporation” or a “controlled corporation” in a distribution in which the parties to such distribution treated the distribution as one to which Section 355 of the Code is applicable. The Company and its Subsidiaries have complied with all of their respective obligations under the Tax Matters Agreement and the Company has furnished to the Purchaser (i) a copy of the executed “Unqualified Tax Opinion” (as defined in the Tax Matters Agreement) delivered by the Company’s tax counsel to bluebird bio on or prior to the date hereof with respect to the purchase pursuant to this Agreement and (ii) a copy of the executed certificate delivered to the Company by bluebird bio on or prior to the date hereof to the effect that such “Unqualified Tax Opinion” with respect to the purchase pursuant to this Agreement constitutes an “Unqualified Tax Opinion” for purposes of Section 6.1(c) of the Tax Matters Agreement.

(r) Transactions With Affiliates. Except as set forth in the SEC Documents, to the Company’s Knowledge, none of the officers or directors of the Company, the Company’s stockholders, the officers or directors of any stockholder of the Company, or any family member or affiliate of any of the foregoing, has either directly or indirectly any interest in, or is a party to, any transaction that would be required to be disclosed as a related party transaction pursuant to Rule 404 of Regulation S-K promulgated under the Securities Act.

(s) Application of Takeover Protections. The Company and the Board of Directors have taken or will take prior to the Closing Date all necessary action, if any, in order to render inapplicable any control share acquisition, business combination (as defined in the Delaware General Corporation Law (“DGCL”)), poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Certificate of Incorporation or the laws of the state of its incorporation, including under Section 203 of the DGCL, which is or could become applicable to the Purchaser as a result of the transactions contemplated by this Agreement, including, without limitation, the Company’s issuance of the Purchased Shares and the Purchaser’s ownership of the Purchased Shares.

(t) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents or any other agreements to be entered into by the Company and the Purchaser that, in each case, will be timely publicly disclosed by the Company, the Company confirms that neither it nor any other Person acting on its behalf has provided the Purchaser or its agents or counsel with any information that the Company believes constitutes or might constitute material, non-public information which is not otherwise disclosed in the SEC Documents. The Company understands and confirms that the Purchaser will rely on the foregoing representation in effecting purchases and sales of securities of the Company. All of the disclosure furnished by or on behalf of the Company to the Purchaser regarding the Company, its business and the transactions contemplated hereby, including the disclosure schedules to this Agreement, is true and correct in all material respects. The Company acknowledges and agrees that the Purchaser neither makes nor has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Article 3 hereof.

(u) Foreign Corrupt Practices; Anti-Bribery and Anti-Money Laundering Laws. Neither the Company, nor to the Company’s Knowledge, any agent or other Person acting on behalf of the Company, 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 made by any Person acting on its behalf of which the Company is aware) which is in violation of law, (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended, the Bribery Act 2010 of the United Kingdom or any other applicable anti-

bribery or anti-corruption laws; or (v) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment.

(v) DTC Eligibility. The Company, through the Transfer Agent, currently participates in the DTC Fast Automated Securities Transfer (FAST) Program and the Common Stock can be transferred electronically to third parties via the DTC Fast Automated Securities Transfer (FAST) Program.

(w) Sarbanes-Oxley. The Company is in compliance in all material respects with all provisions of the Sarbanes-Oxley Act of 2002, as amended, which are applicable to it as of the date hereof.

(x) Certain Fees. No brokerage or finder's fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. The Purchaser shall not have any obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section 3.1(x) that may be due in connection with the transactions contemplated by the Transaction Documents.

(y) Investment Company. Neither the Company nor any Subsidiary is, and, following the completion of the offering, will not be, an "investment company" or an "affiliated person" of, or "promoter" or "principal underwriter" for an investment company, within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission promulgated thereunder.

(z) Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act, and the Company has taken no action designed to, or which to the Company's Knowledge is likely to have the effect of, terminating the registration of the Common Stock pursuant to the Exchange Act nor has the Company received any notification that the SEC is currently contemplating terminating such registration. The Company has not, in the twelve months preceding the date hereof, received any notice from any Person to the effect that the Company is not in compliance with the listing or maintenance requirements of the Principal Trading Market. The Company is in compliance with all such listing and maintenance requirements.

(aa) Accountants. The Company's accountants are set forth in the SEC Documents and, to the Company's Knowledge, such accountants are an independent registered public accounting firm as required by the Securities Act.

(bb) No Market Manipulation. The Company has not, and to its knowledge no Person acting on its behalf has, (i) 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 Purchased Shares, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Purchased Shares, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company in violation of Regulation M promulgated under the Exchange Act.

(cc) Shell Company Status. The Company is not currently, and has never been, an issuer identified in Rule 144(i)(1) under the Securities Act.

(dd) Tests and Preclinical and Clinical Trials. (i) To the Company's Knowledge, the preclinical studies and clinical trials conducted by or on behalf of or sponsored by the Company or its Subsidiaries, or in which the Company or its Subsidiaries have participated, that are described in the SEC Documents, or the results of which are referred to in the SEC Documents, as applicable, 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 and comparable regulatory agencies outside of the United States to which they are subject (collectively, the "Regulatory Authorities") and applicable statutes and all applicable rules and regulations of the Regulatory Authorities; (ii) to the Company's Knowledge, the descriptions of the tests and nonclinical and clinical studies conducted by or on behalf of the Company and the results thereof contained in the SEC Documents are accurate and complete in all material respects; (iii) to the Company's Knowledge, there are no other studies or trials not described in the SEC Documents, the results of which the Company believes reasonably call into question the results described or referred to in the SEC Documents; (iv)

the Company and its subsidiaries have operated at all times and are currently in compliance with all applicable statutes, rules and regulations of the Regulatory Authorities, except where such non-compliance would not, individually or in the aggregate, have a Material Adverse Effect; and (v) neither the Company nor any of its Subsidiaries have received any written notices, correspondence or other communications from the Regulatory Authorities or any other governmental agency requiring or threatening the termination, material modification or suspension of any preclinical studies or clinical trials that are material to the Company and that are described in the SEC Documents or the results of which are referred to in the SEC Documents, other than ordinary course communications with respect to modifications in connection with the design and implementation of such studies or trials.

(ee) No Directed Selling Efforts or General Solicitation. Neither the Company nor any Person acting on its behalf has conducted any general solicitation or general advertising in connection with the offer or sale of any of the Purchased Shares.

(ff) Private Placement. Assuming the accuracy of each of the Purchaser's representations and warranties set forth in Section 3.2, no registration under the Securities Act is required for the offer and sale of the Purchased Shares by the Company to the Purchaser as contemplated hereby.

(gg) Accounting Controls and Disclosure Controls and Procedures. The Company and each of its Subsidiaries maintain systems of "internal control over financial reporting" (as defined under Rule 13a-15(f) of the Exchange Act) that are designed to comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, the Company's principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that: (A) transactions are executed in accordance with management's general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management's general or specific authorization; (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (E) the interactive data in eXtensible Business Reporting Language incorporated by reference in the SEC Filings fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto. Except as disclosed in the SEC Documents, there has been (1) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (2) no change in the Company's internal control over financial reporting that has materially adversely affected, or is reasonably likely to materially adversely affect, the Company's internal control over financial reporting.

(hh) Registration Rights. Other than the Purchaser and the Other Purchasers, no Person has any right to cause the Company or any Subsidiary to effect the registration under the Securities Act of any securities of the Company or any Subsidiary.

(ii) Acknowledgment Regarding Purchaser's Trading Activity. Anything in this Agreement or elsewhere herein to the contrary notwithstanding (except for Section 3.2(h) hereof), it is understood and acknowledged by the Company that: (i) the Purchaser has not been asked by the Company to agree, nor has the Purchaser agreed, to desist from purchasing or selling, long and/or short, securities of the Company, or "derivative" securities based on securities issued by the Company or to hold the Purchased Shares for any specified term, (ii) past or future open market or other transactions by the Purchaser, specifically including, without limitation, Short Sales or "derivative" transactions, before or after the closing of this or future private placement transactions, may negatively impact the market price of the Company's publicly-traded securities, (iii) the Purchaser, and counter-parties in "derivative" transactions to which the Purchaser is a party, directly or indirectly, presently may have a "short" position in the Common Stock and (iv) the Purchaser shall not be deemed to have any affiliation with or control over any arm's length counter-party in any "derivative" transaction. The Company further understands and acknowledges that (y) the Purchaser may engage in hedging activities at various times during the period that the Purchased Shares are outstanding and (z) such hedging activities (if any) could reduce the value of the existing stockholders' equity interests in the Company at and after the time that the hedging activities are being conducted. The Company acknowledges that such aforementioned hedging activities do not constitute a breach of any of the Transaction Documents.

(jj) No Disqualification Events. With respect to the Purchased Shares to be offered and sold hereunder in reliance on Rule 506 under the Securities Act, none of the Company, any of its predecessors, any affiliated issuer, any director, executive officer, other officer of the Company participating in the offering hereunder, any beneficial owner of 20% or more of the Company's outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the Securities Act) connected with the Company in any capacity at the time of sale (each, an "Issuer Covered Person" and, together, "Issuer Covered Persons") is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1)(i) to (viii) under the Securities Act (a "Disqualification Event"), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3). The Company has complied, to the extent applicable, with its disclosure obligations under Rule 506(e), and has furnished to the Purchaser a copy of any disclosures provided thereunder.

(kk) Other Covered Persons. Other than the Placement Agent the Company is not aware of any person (other than any Issuer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Securities.

(ll) Notice of Disqualification Events. The Company will notify the Purchaser in writing, prior to the Closing Date of (i) any Disqualification Event relating to any Issuer Covered Person and (ii) any event that would, with the passage of time, reasonably be expected to become a Disqualification Event relating to any Issuer Covered Person, in each case of which it is aware.

(mm) Other than the Other Subscription Agreements and the Registration Rights Agreement, the Company has not entered into any side letter or similar agreement with any Other Purchaser or any other investor in connection with such Other Purchaser's or investor's direct or indirect investment in the Company. No Other Subscription Agreement includes terms and conditions that are materially more advantageous to any such Other Purchaser than the Purchaser hereunder, and such Other Subscription Agreements have not been amended or modified in any material respect following the date of this Subscription Agreement.

3.2 Representations and Warranties of the Purchaser. The Purchaser represents and warrants as of the date hereof and as of the Closing Date to the Company and the Placement Agent as follows:

(a) Experience. (i) The Purchaser is knowledgeable, sophisticated and experienced in financial and business matters, in making, and is qualified to make, decisions with respect to investments in shares representing an investment decision like that involved in the purchase of the Purchased Shares, including investments in securities issued by the Company and comparable entities, has the ability to bear the economic risks of an investment in the Purchased Shares; (ii) the Purchaser is acquiring the number of the Purchased Shares set forth below the Purchaser's name on the signature page of this Agreement in the ordinary course of its business and for its own account for investment only and with no present intention of distributing any of such Purchased Shares in violation of the Securities Act or any arrangement or understanding with any other persons regarding the distribution of such Purchased Shares in violation of the Securities Act (this representation and warranty not limiting the Purchaser's right to sell pursuant to the Resale Registration Statement or in compliance with the Securities Act and the rules and regulations promulgated under the Exchange Act and the Securities Act (together, the "Rules and Regulations"), or, other than with respect to any claims arising out of a breach of this representation and warranty, the Purchaser's right to indemnification under Section 4.6); (iii) the Purchaser has, in connection with its decision to purchase the number of Purchased Shares set forth below the Purchaser's name on the signature page of this Agreement, relied solely upon its own independent due diligence of the Company and solely upon the representations and warranties of the Company expressly contained herein; and (iv) the Purchaser has received such information as it deems necessary to make an investment decision with respect to the Purchased Shares and has had an opportunity to discuss this investment with representatives of the Company and ask questions of them.

(b) Accredited Purchaser. The Purchaser [(i) an institutional "accredited investor" within the meaning of Rule 501(a)(1), (2), (3), or (7) of Regulation D promulgated under the Securities Act, as presently in effect, and (ii) an "Institutional Account" as defined in FINRA Rule 4512(c)] [is an "accredited investor" within the meaning of Rule 501(a) of Regulation D promulgated under the Securities Act, as presently in effect].

(c) Reliance on Exemptions. The Purchaser understands that the Purchased Shares are being offered and sold to it in reliance upon specific exemptions from the registration requirements of the Securities Act,

the Rules and Regulations and state securities laws and that the Company and its counsel are relying upon the truth and accuracy of, and the Purchaser's compliance with, the representations, warranties, agreements, acknowledgments and understandings of the Purchaser set forth herein in order to determine the availability of such exemptions and the eligibility of the Purchaser to acquire the Purchased Shares.

(d) Investment Decision. The Purchaser understands that nothing in this Purchase Agreement or any other materials presented to the Purchaser in connection with the purchase and sale of the Purchased Shares constitutes legal, tax or investment advice. The Purchaser has consulted such legal, tax and investment advisors as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of the Purchased Shares and has determined based on its own independent review and such professional advice that its purchase of the Purchased Shares and participation in the transactions contemplated by this Agreement (i) are fully consistent with its financial needs, objectives and condition, (ii) comply and are fully consistent with all investment policies, guidelines and other restrictions applicable to it and (iii) are a fit, proper and suitable investment for it, notwithstanding the substantial risks inherent in investing in or holding the Purchased Shares.

(e) Risk of Loss. The Purchaser understands that its investment in the Purchased Shares involves a significant degree of risk, including a risk of total loss of the Purchaser's investment, and the Purchaser has full cognizance of and understands all of the risk factors related to the Purchaser's purchase of the Purchased Shares.

(f) Residency. The Purchaser's offices in which its investment decision with respect to the Purchased Shares was made are in the jurisdiction set forth immediately below the Purchaser's name on the signature pages hereto.

(g) Organization; Validity; Enforcement. The Purchaser further represents and warrants to, and covenants with, the Company that (i) the Purchaser has full right, power, authority and capacity to enter into this Purchase Agreement and to consummate the transactions contemplated hereby and has taken all necessary action to authorize the execution, delivery and performance of this Purchase Agreement, (ii) the making and performance of this Purchase Agreement by the Purchaser and the consummation of the transactions herein contemplated will not violate any provision of the organizational documents of the Purchaser or conflict with, result in the breach or violation of, or constitute, either by itself or upon notice or the passage of time or both, a default under any material agreement, mortgage, deed of trust, lease, franchise, license, indenture, permit or other instrument to which the Purchaser is a party or, any statute or any authorization, judgment, decree, order, rule or regulation of any court or any regulatory body, administrative agency or other governmental agency or body applicable to the Purchaser, (iii) no consent, approval, authorization or other order of any court, regulatory body, administrative agency or other governmental agency or body is required on the part of the Purchaser for the execution and delivery of this Purchase Agreement or the consummation of the transactions contemplated by this Purchase Agreement, (iv) upon the execution and delivery of this Purchase Agreement, this Purchase Agreement shall constitute a legal, valid and binding obligation of the Purchaser, enforceable in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application relating to or the enforcement of creditor's rights and the application of equitable principles relating to the availability of remedies, and except as rights to indemnity or contribution, including, but not limited to, the indemnification provisions set forth in Section 4.6 of this Purchase Agreement, may be limited by federal or state securities laws or the public policy underlying such laws and (v) there is not in effect any order enjoining or restraining the Purchaser from entering into or engaging in any of the transactions contemplated by this Purchase Agreement.

(h) Short Sales. Prior to the date hereof, the Purchaser has not taken, during the period commencing as of the time that the Purchaser was first contacted by the Company or any other Person regarding the transactions contemplated hereby and prior to the public announcement of the transaction after the Closing the Purchaser shall not take, any action that has caused or will cause the Purchaser to have, directly or indirectly, sold or agreed to sell any shares of Common Stock, effected any short sale, whether or not against the box, established any "put equivalent position" (as defined in Rule 16a-1(h) under the Exchange Act with respect to the Common Stock, granted any other right (including, without limitation, any put or call option) with respect to the Common Stock or with respect to any security that includes, relates to or derived any significant part of its value from the Common Stock, other than consummating the transactions contemplated hereunder. Notwithstanding the foregoing, if the Purchaser is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of the Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the

portfolio managers managing other portions of the Purchaser'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 Purchased Shares covered by this Agreement.

(i) Tax Matters.

(1) There was no agreement, understanding, arrangement, or substantial negotiations regarding the acquisition of Purchased Shares or a similar acquisition at any time during the two-year period ending on November 4, 2021 between (i) one or more officers or directors acting on behalf of bluebird bio or the Company, any controlling shareholder of bluebird bio or the Company, or another person or persons with the implicit or explicit permission of one or more of such officers, directors, or controlling shareholders, and (ii) the Purchaser, any of its Affiliates, one or more officers or directors acting on behalf of the Purchaser or any of its Affiliates, any controlling shareholder of the Purchaser or any of its Affiliates, or any other person or persons with the implicit or explicit permission of the Purchaser or one or more of such officers, directors, or controlling shareholders (in each case, within the meaning of Treasury Regulations Section 1.355-7).

(2) With respect to any acquisition of (x) shares of Common Stock prior to the date hereof or (y) Purchased Shares, neither Purchaser nor any of its Affiliates has been or is a member of a coordinating group (within the meaning of Treasury Regulations Section 1.355-7(h)).

(3) [Neither the Purchaser nor any of its Affiliates is or intends to become a controlling shareholder or a ten-percent shareholder of the Company (in each case, within the meaning of Treasury Regulations Section 1.355-7(h)).]

The Company and the Purchaser acknowledge and agree that no party to this Agreement has made or makes any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in this Article III and the Transaction Documents.

ARTICLE IV.
OTHER AGREEMENTS OF THE PARTIES

4.1 Transfer Restrictions.

(a) Compliance with Laws. Notwithstanding any other provision of this Article IV, the Purchaser covenants that it will not dispose of the Purchased Shares other than pursuant to an effective registration statement under, and in compliance with the requirements of, the Securities Act, or pursuant to an available exemption from, or in a transaction not subject to, the registration requirements of the Securities Act, and in compliance with any applicable state, federal or foreign securities laws. Notwithstanding the foregoing, the Purchased Shares may be pledged in connection with a bona fide margin account or other loan or financing arrangement secured by the Purchased Shares and such pledge of Purchased Shares shall not be deemed to be a transfer, sale or assignment of the Purchased Shares hereunder, and no Purchaser effecting a pledge of Purchased Shares shall be required to provide the Company with any notice thereof or otherwise make any delivery to the Company pursuant to this Agreement or any other Transaction Document.

(b) Legends. Certificates evidencing the Purchased Shares shall bear any legend as required by the "blue sky" laws of any state and a restrictive legend in substantially the following form (and, with respect to any Purchased Shares held in book-entry form, the Transfer Agent will record such a legend on the share register), until such time as they are not required under Section 4.1(c) or applicable law:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR APPLICABLE STATE SECURITIES LAWS. THESE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (1) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OR (B) AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE

REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY AND ITS TRANSFER AGENT OR (II) UNLESS SOLD PURSUANT TO RULE 144 UNDER THE SECURITIES ACT (PROVIDED THAT THE TRANSFEROR PROVIDES THE COMPANY WITH REASONABLE ASSURANCES THAT THE SECURITIES MAY BE SOLD PURSUANT TO SUCH RULE). NO REPRESENTATION IS MADE BY THE ISSUER AS TO THE AVAILABILITY OF THE EXEMPTION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT FOR REALES OF THESE SECURITIES.

(c) Removal of Legends.

(i) To the extent the resale of any Purchased Shares are registered under the Securities Act pursuant to an effective Registration Statement naming the holder thereof as a selling stockholder, the Company agrees to promptly authorize the removal of the legend set forth in Section 4.1(b) and any other legend not required by applicable law from such Purchased Shares. Any fees (with respect to the Transfer Agent, counsel or otherwise) associated with the removal of such legend(s) shall be borne by the Company. The Purchaser hereby covenants and agrees that (i) to the extent resales of the Purchased Shares are made pursuant to such effective Registration Statement, that such resales will be made only during the time that such Registration Statement is effective and not withdrawn or suspended and only as permitted by such Registration Statement, and otherwise in compliance with the Securities Act (including applicable prospectus delivery obligations), and (ii) to the extent resales of the Purchased Shares are made pursuant to an available exemption from the registration requirements of the Securities Act, such resales will be made only as permitted by such exemption and otherwise in compliance with the Securities Act.

(ii) The Purchaser may request that the Company remove, and the Company agrees to authorize the removal of any legend from the Purchased Shares (i) following any sale of the Purchased Shares pursuant to Rule 144, or (ii) if such Purchased Shares are eligible for sale under Rule 144 following the expiration of the applicable holding requirement thereof. Following the time a legend is no longer required for the Purchased Shares under this Section 4.1(c)(ii), the Company will, no later than three Business Days following the delivery by the Purchaser to the Company or the Transfer Agent of a certificate representing Purchased Shares issued with a restrictive legend, deliver or cause to be delivered to the Purchaser a certificate representing such shares that is free from all restrictive and other legends. Certificates for Purchased Shares subject to legend removal hereunder shall be transmitted by the Transfer Agent to the Purchaser by crediting the account of the Purchaser's prime broker with the Depository Trust Company System as directed by the Purchaser.

4.2 Furnishing of Information. In order to enable the Purchaser to sell the Purchased Shares under Rule 144 of the Securities Act, the Company shall maintain the registration of the Common Stock under Section 12(b) or 12(g) of the Exchange Act and at all times it is subject to the requirements of the Exchange Act it shall timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed with the Commission by the Company after the date hereof pursuant to the Exchange Act and submit electronically any interactive data files specified in Rule 144(c)(1)(ii) of the Securities Act. If the Company is not required to file reports with the Commission pursuant to such laws, it will, for so long as the Purchaser holds the Purchased Shares, prepare and furnish to the Purchaser and make publicly available the information described in Rule 144(c)(2), if the provision of such information will allow resales of the Purchased Shares pursuant to Rule 144.

4.3 Form D and Blue Sky Laws. The Company agrees to timely file a Form D with respect to the Purchased Shares as required under Regulation D. The Company, on or before the Closing Date, shall take such action as the Company shall reasonably determine is necessary in order to obtain an exemption for or to qualify the Purchased Shares for sale to the Purchaser at the Closing pursuant to this Agreement under applicable securities or "blue sky" laws of the states of the United States (or to obtain an exemption from such qualification). The Company shall make all filings and reports relating to the offer and sale of the Purchased Shares required under applicable securities or "blue sky" laws of the states of the United States following the Closing Date.

4.4 No Integration. The Company shall not, and shall use its reasonable best efforts to ensure that no Affiliate of the Company shall, sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any

security (as defined in Section 2 of the Securities Act) that will be integrated with the offer or sale of the Purchased Shares in a manner that would require the registration under the Securities Act of the sale of the Purchased Shares to Purchaser.

4.5 Securities Laws Disclosure; Publicity. The Company shall: (a) by 9:30 a.m. (New York City time) on the Trading Day immediately following the date hereof, issue a press release disclosing the material terms of the transactions contemplated hereby (the “*Press Release*”), and (b) by 9:30 a.m. (New York City time) on the fourth (4th) Trading Day following the date hereof, file a Current Report on Form 8-K disclosing the material terms of the transactions contemplated hereby in the form required by the Exchange Act and attaching as exhibits to such Current Report on Form 8-K this Agreement and the Registration Rights Agreement (including all attachments, the “*8-K Filing*”). Subject to the foregoing, neither the Company nor the Purchaser shall issue any press releases or any other public statements with respect to the transactions contemplated hereby except as may be reviewed and approved by the Purchaser or the Company, respectively; *provided, however*, that the Company shall be entitled, without the prior approval of the Purchaser, to make any press release or other public disclosure with respect to the transactions contemplated hereby, *provided, further, however*, that the Company shall not publicly disclose the name of the Purchaser or any Affiliate of the Purchaser except as otherwise required by applicable law and regulations or as agreed to by the Purchaser. Notwithstanding the foregoing, the Purchaser may identify the Company and the value of the Purchaser’s security holdings in the Company in accordance with applicable investment reporting and disclosure regulations or internal policies without prior notice to or consent from the Company (including, for the avoidance of doubt, filings pursuant to Sections 13 and 16 of the Exchange Act).

4.6 Indemnification.

(a) Indemnification of Purchaser. In addition to the indemnity provided to the Purchaser and the Other Purchasers in the Registration Rights Agreement, the Company will indemnify and hold the Purchaser and its directors, officers, stockholders, members, partners, employees and agents (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title), each Person who controls Purchaser (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, stockholders, agents, members, partners or employees (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title) of such controlling person (each, a “*Purchaser Party*”) harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, charges, costs and expenses (including, without limitation, all judgments, amounts paid in settlements, fines, penalties, interest, court costs and reasonable attorneys’ fees and costs of investigation) (each a “*Loss*”) that any Purchaser Party may suffer or incur as a result of, arising out of, or relating to (i) any inaccuracy or breach of any of the representations, warranties, covenants or agreements made by the Company in this Agreement or in the other Transaction Documents (including any certificates delivered pursuant thereto) or (ii) any Action instituted against a Purchaser Party in any capacity, or any of them or their respective affiliates, by any Person who is not an affiliate of such Purchaser Party (other than the Company or its controlled affiliates), with respect to any of the transactions contemplated by this Agreement (unless such action is based upon a breach of the Purchaser’s representations, warranties or covenants under the Transaction Documents or any agreements or understandings the Purchaser may have with any such stockholder or any violations by the Purchaser of state or federal securities laws or any conduct by the Purchaser which constitutes fraud, gross negligence, willful misconduct or malfeasance). To the extent that the foregoing undertaking by the Company may be unenforceable for any reason, the Company shall make the maximum contribution to the payment and satisfaction of each Loss that is permissible under applicable law.

(b) Conduct of Third-Party Indemnification Proceedings. Promptly after receipt by any Purchaser Party (the “*Indemnified Person*”) of notice of any demand, claim or circumstances from any third-party which would or might give rise to a claim or the commencement of any Action in respect of which indemnity may be sought pursuant to Section 4.6(a), such Indemnified Person shall promptly notify the Company in writing and the Company shall assume the defense thereof, including the employment of counsel reasonably satisfactory to such Indemnified Person, and shall assume the payment of all fees and expenses; *provided, however*, that the failure of any Indemnified Person so to notify the Company shall not relieve the Company of its obligations hereunder except to the extent that the Company is actually and materially and adversely prejudiced by such failure to notify. In any such proceeding, any Indemnified Person shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such Indemnified Person unless: (i) the Company and the Indemnified Person shall have mutually agreed to the retention of such counsel; (ii) the Company shall have failed promptly to assume the

defense of such proceeding and to employ counsel reasonably satisfactory to such Indemnified Person in such proceeding; or (iii) in the reasonable judgment of counsel to such Indemnified Person, representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. The Company shall not be liable for any settlement of any proceeding effected without its written consent, which consent shall not be unreasonably withheld, delayed or conditioned. Without the prior written consent of the Indemnified Person, which consent shall not be unreasonably withheld, delayed or conditioned, the Company shall not effect any settlement of any pending or threatened proceeding in respect of which any Indemnified Person is or could have been a party and indemnity could have been sought hereunder by such Indemnified Persons, unless such settlement (A) includes an unconditional release of such Indemnified Person from all liability arising out of such proceeding, (B) does not require any admission of wrongdoing by such Indemnified Person, and (C) does not obligate or require an Indemnified Person to take, or refrain from taking, any action.

4.7 Listing of Common Stock. In the time and manner required by the Principal Trading Market, the Company shall prepare and file with such Principal Trading Market an additional shares listing notification covering all of the Purchased Shares. The Company will use commercially reasonable efforts to continue the listing and trading of its Common Stock on the Principal Trading Market and, in accordance therewith, will use commercially reasonable efforts to comply in all material respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Principal Trading Market, as applicable.

4.8 No Conflicting Agreements. The Company will not take any action, enter into any agreement or make any commitment that would conflict or interfere in any material respect with the Company's obligations to the Purchaser under the Transaction Documents.

4.9 Tax Matters.

(a) The Purchaser will not, nor will it permit any of its Affiliates to, become a member of a "coordinating group" (within the meaning of Treasury Regulations Section 1.355-7(h)) that includes the Purchaser or such Affiliate.

(b) [Neither the Purchaser nor any of its Affiliates will acquire, or obtain the right to acquire, any shares of Common Stock after the date hereof from any transferor (the "Subject Acquisition"), unless the Purchaser or such Affiliate represents to the Company on or about the time of such acquisition that there was no agreement, understanding, arrangement, or substantial negotiations regarding the Subject Acquisition or a similar acquisition at any time during the two-year period ending on November 4, 2021 between (i) the transferor or another person or persons with the implicit or explicit permission of the transferor, and (ii) the Purchaser, any of its Affiliates, one or more officers or directors acting on behalf of the Purchaser or any of its Affiliates, any controlling shareholder of the Purchaser or any of its Affiliates, or any other person or persons with the implicit or explicit permission of one or more of such officers, directors, or controlling shareholders (in each case, within the meaning of Treasury Regulations Section 1.355-7).]

4.10 Placement Agent. The Purchaser acknowledges that it is not relying upon, and has not relied upon, any statement, representation or warranty made by Goldman Sachs & Co. LLC, any of its affiliates or any of its or their control persons, officers, directors and employees (each a "Placement Agent" and collectively, the "Placement Agents") in making its investment or decision to invest in the Company. The Purchaser agrees that no Placement Agent shall be liable to the Purchaser for any action heretofore or hereafter taken or omitted to be taken by any of them or have any liability or obligation (including without limitation, for or with respect to any losses, claims, damages, obligations, penalties, judgments, awards, liabilities, costs, expenses or disbursements incurred by you, the Company or any other person or entity), whether in contract, tort or otherwise, to the Purchaser, or to any person claiming through the Purchaser, in respect of the transactions contemplated by this Agreement. The Purchaser hereby acknowledges and agrees that (a) each Placement Agent is acting solely as the Company's placement agent in connection with the transactions contemplated by this Agreement and is not acting as an underwriter or in any other capacity and is not and shall not be construed as a fiduciary for the Purchaser, the Company or any other person or entity in connection with the transactions contemplated by this Agreement, (b) no Placement Agent has made or will make any representation or warranty, whether express or implied, of any kind or character and has not provided any advice or recommendation in connection with the transactions contemplated by this Agreement, and (c) no Placement Agent will have any responsibility with respect to (i) any representations, warranties or agreements made by any

person or entity under or in connection with the transactions contemplated by this Agreement or any of the documents furnished pursuant thereto or in connection therewith, or the execution, legality, validity or enforceability (with respect to any person) or any thereof, or (ii) the business, affairs, financial condition, operations, properties or prospects of, or any other matter concerning the Company or the transactions contemplated by this Agreement.

4.11 Lock-Up Agreements. During the period beginning from the date hereof and continuing to and including the earlier of (a) the date that is ninety (90) days following the date hereof and (b) the date on which the all Purchased Shares issued and sold by the Company at the Closing to the Purchasers (other than Purchased Shares held by any Purchaser that has not furnished a Selling Stockholder Questionnaire (as defined in the Registration Rights Agreement) in accordance with Section 3(a) of the Registration Rights Agreement and Purchased Shares held by any Purchaser that withdraws from a registration statement pursuant to Section 2(a) and/or Section 2(e) of the Registration Rights Agreement) have been registered for resale pursuant to an Initial Registration Statement (as defined in the Registration Rights Agreement, and as amended, if applicable) and, if applicable pursuant to Section 2(b) or 2(c) of the Registration Rights Agreement, additional registration statement(s), and such Initial Registration Statement and, if applicable, additional registration statement(s) have been declared effective by the Commission (the "Lock-Up Period"), neither the Company nor any Subsidiary shall enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents. Notwithstanding the foregoing, this Section 4.11 shall not apply in respect of, or limit in any respect, an Exempt Issuance or the filing by the Company of any registration statement on Form S-8 or a successor form thereto relating to a Stock Plan.

ARTICLE V. MISCELLANEOUS

5.1 Fees and Expenses. Each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement. The Company shall pay all Transfer Agent fees, stamp taxes and other taxes and duties levied in connection with the sale and issuance of the Purchased Shares to the Purchaser, and the Company shall file all necessary tax returns and other documentation with respect to such fees, taxes and duties.

5.2 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, contain the entire understanding of the parties with respect to the subject matter hereof and supersede all prior agreements, understandings, discussions and representations, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules. At or after the Closing, and without further consideration, the Company and the Purchaser will execute and deliver to the other such further documents as may be reasonably requested in order to give practical effect to the intention of the parties under the Transaction Documents.

5.3 Notices. All notices required or permitted under this Agreement must be in writing and sent to the address identified below. Notices must be given: (a) by personal delivery, with receipt acknowledged; (b) by email followed by hard copy delivered by the methods under clause (c) or (d); (c) by prepaid certified or registered mail, return receipt requested; or (d) by prepaid reputable overnight delivery service. Notices shall be effective upon receipt. Either party may change its notice address by providing the other party written notice of such change. Notices shall be delivered as follows:

If to the Company: 2seventy bio, Inc.
60 Binney Street
Cambridge, MA 02141
Attn: Chip Baird; Teresa Jurgensen
Email: chip.baird@2seventy.com; teresa.jurgensen@2seventy.com

With a copy to: Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02110
Attn: Michael H. Bison; Gregg Katz
Email: mbison@goodwinlaw.com; gkatz@goodwinlaw.com

If to the Purchaser: At the address set forth on the signature page hereto or such other address as may be designated in writing hereafter, in the same manner, by the Purchaser.

5.4 Amendments; Waivers; No Additional Consideration. No amendment or waiver of any provision of this Agreement will be effective with respect to any party unless made in writing and signed by a duly authorized representative of such party. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right. The Company shall not make any amendment, waiver or modification to any Other Subscription Agreement that materially economically benefits the Other Purchaser thereunder unless the Purchaser has been offered substantially the same benefits. No consideration shall be offered or paid to an Other Purchaser to amend or consent to a waiver or modification of any provision of any Transaction Document unless the same consideration is also offered to the Purchaser.

5.5 Construction. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party. This Agreement shall be construed as if drafted jointly by the parties, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provisions of this Agreement or any of the Transaction Documents.

5.6 Successors and Assigns. Except as otherwise provided in this Agreement, the provisions of this Agreement shall inure to the benefit of and be binding upon the parties and their successors and permitted assigns. This Agreement, or any rights or obligations hereunder, may not be assigned by the Company without the prior written consent of the Purchaser. Except as otherwise provided herein, the Purchaser may assign its rights hereunder in whole or in part to any Person to whom the Purchaser assigns or transfers any Purchased Shares in compliance with the Transaction Documents and applicable law, provided such transferee shall agree in writing to be bound, with respect to the transferred Purchased Shares, by the terms and conditions of this Agreement that apply to the "Purchaser."

5.7 No Third-Party Beneficiaries. 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, other than Indemnified Persons; provided, that the parties hereto acknowledge and agree that the Placement Agent is a third-party beneficiary of the acknowledgements, representations, warranties and covenants of the parties contained in this Agreement.

5.8 Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all Proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement and any other Transaction Documents (whether brought against a party hereto or its respective Affiliates, employees or agents) may be commenced on a non-exclusive basis in the United States District Court for the Southern District of New York sitting in the borough of Manhattan, New York. Each party hereto hereby irrevocably submits to the non-exclusive jurisdiction of the United States District Court for the Southern District of New York for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any Proceeding, any claim that it is not personally subject to the jurisdiction of the United States District Court for the Southern District of New York, or that such Proceeding has been commenced in an improper or inconvenient forum. Each party hereto hereby irrevocably waives personal service of process and consents to process being served in any such Proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. **EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.**

5.9 Survival. Subject to applicable statute of limitations, the representations, warranties, agreements and covenants contained herein shall survive the Closing and the delivery of the Purchased Shares.

5.10 Execution. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission, or by e-mail delivery of a “.pdf” format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile signature page were an original thereof.

5.11 Severability. If any provision of this Agreement is held to be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Agreement shall not in any way be affected or impaired thereby and the parties will attempt to agree upon a valid and enforceable provision that is a reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Agreement.

5.12 Replacement of Securities. If any certificate or instrument evidencing any Purchased Shares are mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof, or in lieu of and substitution thereof, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company and the Transfer Agent of such loss, theft or destruction and the execution by the holder thereof of a customary lost certificate affidavit of that fact and an agreement to indemnify and hold harmless the Company and the Transfer Agent for any losses in connection therewith or, if required by the Transfer Agent, a bond in such form and amount as is required by the Transfer Agent. The applicants for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs associated with the issuance of such replacement Purchased Shares. If a replacement certificate or instrument evidencing any Purchased Shares is requested due to a mutilation thereof, the Company may require delivery of such mutilated certificate or instrument as a condition precedent to any issuance of a replacement.

5.13 Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, the Purchaser and the Company will be entitled to seek specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any Loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any action for specific performance of any such obligation the defense that a remedy at law would be adequate. The Company therefore agrees that the Purchaser shall be entitled to seek temporary and permanent injunctive relief in any such case without the necessity of proving actual damages and without posting a bond or other security.

5.14 Payment Set Aside. To the extent that the Company makes a payment or payments to the Purchaser pursuant to any Transaction Document or the Purchaser enforces or exercises its rights thereunder, and such payment or payments or the proceeds of such enforcement or exercise or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside, recovered from, disgorged by or are required to be refunded, repaid or otherwise restored to the Company, a trustee, receiver or any other person under any law (including, without limitation, any bankruptcy law, state or federal law, common law or equitable cause of action), then to the extent of any such restoration the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such enforcement or setoff had not occurred.

5.15 Independent Nature of Purchaser's Obligations and Rights. The obligations of the Purchaser under any Transaction Document are several and not joint with the obligations of any Other Purchaser, and the Purchaser shall not be responsible in any way for the performance of the obligations of any Other Purchaser under any Transaction Document. The decision of the Purchaser to purchase shares of Common Stock pursuant to the Transaction Documents has been made by the Purchaser independently of any Other Purchaser and independently of any information, materials, statements or opinions as to the business, affairs, operations, assets, properties, liabilities, results of operations, condition (financial or otherwise) or prospects of the Company or any Subsidiary which may have been made or given by any Other Purchaser or by any agent or employee of any Other Purchaser, and the Purchaser and its agents or employees shall not have any liability to any Other Purchaser (or any other Person) relating to or arising from any such information, materials, statement or opinions. Nothing contained herein or in any Transaction Document, and no action taken by the Purchaser pursuant thereto, shall be deemed to constitute the

Purchaser and the Other Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchaser and the Other Purchasers are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. The Purchaser acknowledges that no Other Purchaser has acted as agent for the Purchaser in connection with making its investment hereunder and that no Other Purchaser will be acting as agent of the Purchaser in connection with monitoring its investment in the Purchased Shares or enforcing its rights under the Transaction Documents. The Purchaser 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 Purchaser to be joined as an additional party in any proceeding for such purpose.

5.16 Termination.

(a) This Agreement may be terminated by the Company or by the Purchaser, as to the Purchaser's obligations hereunder only and without any effect whatsoever on the obligations between the Company and the Other Purchasers, by written notice to the other parties, if the Closing has not been consummated within ten (10) calendar days from the date hereof through no fault of the Company, in the case of a termination by the Company, or by the Purchaser, in the case of a termination by the Purchaser; provided, however, that no such termination will affect the right of any party to sue for any breach by the other party (or parties).

(b) Nothing in this Section 5.16 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.

(c) In the event of any termination of this Agreement as provided in this Section 5.16, this Agreement (other than Article V, which shall remain in full force and effect) shall forthwith become wholly void and of no further force and effect; provided that nothing herein shall relieve any party from liability for intentional breach of this Agreement. Upon a termination in accordance with this Section 5.16, the Purchaser will not have any liability to any Other Purchaser as a result therefrom.

5.17 Rescission and Withdrawal Right. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) the Transaction Documents, whenever the Purchaser exercises a right, election, demand or option under a Transaction Document and the Company does not timely perform its related obligations within the periods therein provided, then the Purchaser may rescind or withdraw, in its sole discretion from time to time upon written notice to the Company, any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights.

5.18 Adjustments in Stock 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 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 account for such event. .

5.19 No Recourse. Each party hereto covenants, agrees and acknowledges that no person other than the Purchaser has obligations hereunder and that no person shall have any remedy, recourse or right of recovery against, or contribution from, any of Purchaser Related Party, whether through Purchaser or otherwise, by the enforcement of any assessment or by any legal or equitable proceeding, by virtue of any statute, regulation or applicable law, by or through a claim by or on behalf of Purchaser against any Purchaser Related Party, or otherwise. The term "*Purchaser Related Party*" means (1) any Affiliate of Purchaser, (2) any former, current or future general or limited partners, members, managers, stockholders, holders of any equity, partnership or limited liability company interest, officers, directors, employees, agents, controlling persons, investment advisors, or assignees of Purchaser or any of its Affiliates, or (3) any former, current or future general or limited partners, members, managers, stockholders, holders of any equity, partnership or limited liability company interest, officers, directors, employees, agents, controlling persons, assignees, investment advisors or Affiliates of any of the foregoing.

[Remainder of page intentionally blank]

IN WITNESS WHEREOF, the parties hereto have caused this Share Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

2seventy bio, Inc.

By: _____
Name: Chip Baird
Title: Chief Financial Officer

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

[SIGNATURE PAGES FOR PURCHASER FOLLOW]

SIGNATURE PAGE TO SECURITIES PURCHASE AGREEMENT

[]

Name of Purchaser (Person or entity in whose name the shares will be registered)

Address for notice:

Name and title of authorized officer (if subscriber is a business entity)

Street

By: []

/s/ []

Signature

City

State

Zip

SSN/Tax ID No.:

Attn:

Phone No.:

Fax No.:

E-mail address:

Number of shares of Common Stock subscribed for:

Total Purchase Price: \$

Delivery Instructions, if different from above:

c/o

Street:

City/State/Zip:

Attention:

Telephone

No.:

EXHIBIT A
FORM OF REGISTRATION RIGHTS AGREEMENT

EXHIBIT B
FORM OF LOCK-UP AGREEMENT

2seventy bio, Inc. Lock-Up Agreement March [], 2022

Re: 2seventy bio, Inc. - Lock-Up Agreement

Ladies and Gentlemen:

This agreement (this "Lock-Up Agreement") is being delivered to each of the Purchasers (as defined below) in connection with the Share Purchase Agreements, each dated March [], 2022, by and between 2seventy bio, Inc., a Delaware corporation (the "Company") and the purchasers party thereto (the "Purchasers"), providing for the purchase and sale by the Company to the Purchasers of shares of common stock, par value \$0.0001 per share, of the Company ("Common Stock" and the shares of Common Stock issued and sold by the Company pursuant to the Share Purchase Agreements, the "Purchased Shares"). Reference is also made to the Registration Rights Agreement, dated as of the date hereof, by and among the Company and the Purchasers (the "RRA"). Capitalized terms used but not defined herein shall have the meaning ascribed to such terms in the Purchase Agreements.

In consideration of the agreement by the Purchasers to purchase the Purchased Shares, and of other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned agrees that, during the period beginning from the date hereof and continuing to and including the earlier of (a) the date that is ninety (90) days following the date hereof and (b) the date on which all Purchased Shares issued and sold by the Company at the Closing to the Purchasers (other than Purchased Shares held by any Purchaser that has not furnished a Selling Stockholder Questionnaire (as defined in the RRA) in accordance with Section 3(a) of the RRA and Purchased Shares held by any Purchaser that withdraws from a registration statement pursuant to Section 2(a) and/or Section 2(e) of the RRA) have been registered for resale pursuant to an Initial Registration Statement (as defined in the RRA and as amended, if applicable) and, if applicable pursuant to Section 2(b) or 2(c) of the RRA, additional registration statement(s), and such Initial Registration Statement and, if applicable, additional registration statement(s) have been declared effective by the Commission (as applicable, the "Lock-Up Period"), the undersigned shall not (i) offer, sell, contract to sell, pledge, grant any option to purchase, lend or otherwise dispose of any shares of Common Stock of the Company, or any options or warrants to purchase any shares of Common Stock of the Company, or any securities convertible into, exchangeable for or that represent the right to receive shares of Common Stock of the Company (such options, warrants or other securities, collectively, "Derivative Instruments"), including without limitation any such shares or Derivative Instruments now owned or hereafter acquired by the undersigned, (ii) engage in any hedging or other transaction or arrangement (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) which is designed to or which reasonably could be expected to lead to or result in a sale, loan, pledge or other disposition (whether by the undersigned or someone other than the undersigned), or transfer of any of the economic consequences of ownership, in whole or in part, directly or indirectly, of any shares of Common Stock of the Company or Derivative Instruments, whether any such transaction or arrangement (or instrument provided for thereunder) would be settled by delivery of Common Stock or other securities, in cash or otherwise or (iii) otherwise publicly announce any intention to engage in or cause any action or activity described in clause (i) above or transaction or arrangement described in clause (ii) above.

The foregoing restrictions shall not apply to (i) transactions relating to shares of Common Stock acquired in open market transactions after the date of the Prospectus, (ii) transfers of shares of Common Stock or other securities of the Company as a *bona fide* gift or charitable contribution, provided that the donee or donees thereof agree to be bound in writing by the restrictions set forth herein, (iii) transfers of shares of Common Stock or other securities of the Company to any immediate family member (*i.e.*, relationship by blood, marriage or adoption, not more remote than first cousin) of the undersigned or any trust or other entity formed for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, provided that the trustee of such trust or entity agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, (iv) transfers of shares of Common Stock or other securities of the Company by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the undersigned in a transaction not involving a disposition for value, (v) transfers of shares of Common Stock or other securities of the Company pursuant to a qualified domestic order, court order or in connection with a divorce settlement; (vi) transfers of shares of Common Stock pursuant to a trading plan established pursuant to Rule 10b5-1 under the Exchange Act (a “10b5-1 Plan”) prior to the date hereof (provided that any related filing under Section 16(a) of the Exchange Act must note that such transfer was made pursuant to such 10b5-1 Plan), which trading plan shall not be amended during the Lock-Up Period but may be terminated during the Lock-Up Period, and (vii) the establishment of a 10b5-1 Plan providing for the transfer of shares of Common Stock, to the extent that such plan does not provide for the transfer of shares of Common Stock during the Lock-Up Period. The undersigned now has, and, except as contemplated by the foregoing sentence, for the duration of this Lock-Up Agreement will have, good and marketable title to the undersigned’s shares of Common Stock of the Company, free and clear of all liens, encumbrances, and claims whatsoever. The undersigned also agrees and consents to the entry of stop transfer instructions with the Company’s transfer agent and registrar against the transfer of the undersigned’s shares of Common Stock of the Company except in compliance with the foregoing restrictions. Notwithstanding the foregoing, (a) nothing in this Lock-Up Agreement shall prohibit the exercise of any option, warrant or other rights to acquire the Company’s Shares or other securities, the settlement of any share-settled share appreciation rights, restricted shares or restricted share units or the conversion of any convertible security into Shares, in each case described in the Registration Statement, *provided* that the Shares or other securities remain subject to this Lock-Up Agreement and (b) the undersigned may transfer or sell such number of shares of Common Stock as is necessary solely to satisfy any tax withholding obligations incurred upon the vesting of any restricted stock units that vest during the Lock-Up Period, through the surrender to the Company of shares of Common Stock or through sales of shares of Common Stock in the market, provided that any shares of Common Stock received by the undersigned upon such vesting shall be subject to the restrictions provided for in this Lock-Up Agreement, and provided further that any related filing under Section 16(a) of the Exchange Act must note that such transfer or sale was made solely to satisfy tax withholding obligations.

This Lock-Up Agreement shall automatically terminate and be of no further effect if the Purchase Agreements terminate before the sale of any Purchased Shares to the Purchasers. The undersigned further understands that this Lock-Up Agreement is irrevocable and shall be binding upon the undersigned’s heirs, legal representatives, successors, and assigns provided that this Lock-Up Agreement shall automatically terminate and be of no further effect upon the termination of the Purchase Agreements before the sale of any Purchased Shares to the

Purchasers, and upon such termination the undersigned shall be released from all obligations under this Lock-Up Agreement. This Lock-Up Agreement and any claim, controversy or dispute arising under or related to this Lock-Up Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof.

Very truly yours,

Exact Name of Shareholder

Authorized Signature

Title

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this “Agreement”) is made and entered into as of March [], 2022, between 2seventy bio, Inc., a Delaware corporation (the “Company”), and each of the several purchasers signatory hereto (each such purchaser, a “Purchaser” and, collectively, the “Purchasers”).

This Agreement is made pursuant to the Share Purchase Agreements, dated as of the date hereof, between the Company and each Purchaser (the “Purchase Agreements”).

The Company and each Purchaser hereby agrees as follows:

1. Definitions.

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

“Advice” shall have the meaning set forth in Section 6(c).

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

“Commission” means the Securities and Exchange Commission.

“Common Stock” means the Company’s common stock, par value \$0.0001 per share.

“Effectiveness Date” means, with respect to the Initial Registration Statement required to be filed hereunder, the 75th calendar day following the date hereof (or, in the event of a “full review” by the Commission, the 90th calendar day following the date hereof) and with respect to any additional Registration Statements which may be required pursuant to Section 2(c) or Section 3(c), the 30th calendar day following the date on which an additional Registration Statement is required to be filed hereunder (or, in the event of a “full review” by the Commission, the 60th calendar day following the date thereof); provided, however, that in the event the Company is notified by the Commission that one or more of the above Registration Statements will not be reviewed or is no longer subject to further review and comments, the Effectiveness Date as to such Registration Statement shall be the fifth Trading Day following the date on which the Company is so notified if such date precedes the dates otherwise required above, provided, further, if such Effectiveness Date falls on a day that is not a Trading Day, then the Effectiveness Date shall be the next succeeding Trading Day.

“Effectiveness Period” shall have the meaning set forth in Section 2(a).

“Event” shall have the meaning set forth in Section 2(d).

“Event Date” shall have the meaning set forth in Section 2(d).

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

“Filing Date” means, with respect to the Initial Registration Statement required hereunder, the 45th calendar day following the date hereof and, with respect to any additional Registration Statements which may be required pursuant to Section 2(c) or Section 3(c), the earliest practical

date on which the Company is permitted by SEC Guidance to file such additional Registration Statement related to the Registrable Securities.

“Holder” or “Holders” means the holder or holders, as the case may be, from time to time of Registrable Securities.

“Indemnified Party” shall have the meaning set forth in Section 5(c).

“Indemnifying Party” shall have the meaning set forth in Section 5(c).

“Initial Registration Statement” means the initial Registration Statement filed pursuant to this Agreement.

“Losses” shall have the meaning set forth in Section 5(a).

“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.

“Plan of Distribution” shall have the meaning set forth in Section 2(a).

“Principal Trading Market” means the Trading Market on which the Common Stock is primarily listed on and quoted for trading, which, as of the date of this Agreement and the Closing Date, shall be the Nasdaq Global Select Market.

“Proceeding” means an action, claim, suit, investigation or legal proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened.

“Prospectus” means the prospectus included in a Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A promulgated by the Commission pursuant to the Securities Act), 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 a Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

“Registrable Securities” means, as of any date of determination, all Shares and any securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization or similar event with respect to or in exchange for the foregoing; 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) if (i) a Registration Statement with respect to the sale of such Registrable Securities is declared effective by the Commission under the Securities Act and such Registrable Securities have been disposed of by the Holder in accordance with such effective Registration Statement, (ii) such Registrable Securities have been previously sold in accordance with Rule 144, or (iii) such securities become eligible for resale without volume or manner-of-sale restrictions and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144 as set forth in a written opinion letter to such effect, addressed, delivered and acceptable to the Transfer Agent and the affected Holders.

“Registration Statement” means any registration statement required to be filed hereunder pursuant to Section 2(a) and any additional registration statements contemplated by Section 2(c) or Section 3(c), including (in each case) the Prospectus, amendments and supplements to any such registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in any such registration statement.

“Required Holders” means Holders of 50.1% or more of the then outstanding Registrable Securities (for purposes of clarification, this includes any Registrable Securities issuable upon exercise or conversion of any Security).

“Rule 144” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

“Rule 415” means Rule 415 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

“Rule 424” means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

“Selling Stockholder Questionnaire” shall have the meaning set forth in Section 3(a).

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

“Shares” means the shares of Common Stock sold pursuant to the Purchase Agreements.

“Subsidiary” means any entity in which the Company, directly or indirectly, owns sufficient capital stock or holds a sufficient equity or similar interest such that it is consolidated with the Company in the financial statements of the Company.

“Trading Day” means (i) a day on which the Common Stock is listed or quoted and traded on its Principal Trading Market (other than the OTC Bulletin Board), or (ii) if the Common Stock is not listed on a Trading Market (other than the OTC Bulletin Board), a day on which the Common Stock is traded in the over-the-counter market, as reported by the OTC Bulletin Board, or (iii) if the Common Stock is not quoted on any Trading Market, a day on which the Common Stock is quoted in the over-the-counter market as reported in the “pink sheets” by Pink Sheets LLC (or any similar organization or agency succeeding to its functions of reporting prices); provided, that in the event that the Common Stock is not listed or quoted as set forth in (i), (ii) or (iii) hereof, then Trading Day shall mean a Business Day.

“Trading Market” means whichever of the New York Stock Exchange, the NYSE Amex, the Nasdaq Global Select Market, the Nasdaq Global Market, the Nasdaq Capital Market or the

OTC Bulletin Board on which the Common Stock is listed or quoted for trading on the date in question.

“Transfer Agent” means American Stock Transfer & Trust Company, or any successor transfer agent for the Company.

2. Shelf Registration.

(a) On or prior to each Filing Date, the Company shall prepare and file with the Commission a Registration Statement covering the resale of all of the Registrable Securities that are not then registered on an effective Registration Statement for an offering to be made on a continuous basis pursuant to Rule 415. Each Registration Statement filed hereunder shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form in accordance herewith, subject to the provisions of Section 2(d)) and shall contain a “Plan of Distribution” substantially in the form attached hereto as Annex A and a “Selling Stockholder” section in substantially the form attached hereto as Annex B; provided, however, that no Holder shall be required to be named as an “underwriter” without such Holder’s express prior written consent and further provided that if the Commission requests that a Holder be identified as a statutory underwriter in the Registration Statement, such Holder will have an opportunity to withdraw from the Registration Statement. Subject to the terms of this Agreement, the Company shall use its reasonable best efforts to cause a Registration Statement filed under this Agreement (including, without limitation, under Section 3(c)) to be declared effective under the Securities Act as promptly as possible after the filing thereof, but in any event no later than the applicable Effectiveness Date, and shall use its reasonable best efforts to keep such Registration Statement continuously effective under the Securities Act until the earliest of (i) the date that all Registrable Securities covered by such Registration Statement have been sold, thereunder or pursuant to Rule 144, (ii) the date that all Registrable Securities covered by such Registration Statement may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144, as determined by the counsel to the Company pursuant to a written opinion letter to such effect, addressed and acceptable to the Transfer Agent and the affected Holders and (iii) the date that is one year from the Effectiveness Date (the “Effectiveness Period”); provided that the Company will not be obligated to update the Registration Statement and no sales may be made under the applicable Registration Statement during any Allowed Delays of which the Holders have received notice. The Company shall telephonically request effectiveness of a Registration Statement as of 5:00 p.m. (New York City time) on a Trading Day. The Company shall promptly notify the Holders via facsimile or by e-mail of the effectiveness of a Registration Statement on the same Trading Day that the Company telephonically confirms effectiveness with the Commission, which shall be the date requested for effectiveness of such Registration Statement. The Company shall, by 9:30 a.m. (New York City time) on the Trading Day after the effective date of such Registration Statement, file a final Prospectus with the Commission as required by Rule 424.

(b) Notwithstanding the registration obligations set forth in Section 2(a), if the Commission informs the Company that all of the Registrable Securities cannot, as a result of the application of Rule 415, be registered for resale as a secondary offering on a single registration statement, the Company agrees to promptly inform each of the Holders thereof and use its commercially reasonable efforts to file amendments to the Initial Registration Statement as required by the Commission, covering the maximum number of Registrable Securities permitted to be registered by the Commission, on Form S-3 or such other form available to register for resale the Registrable Securities as a secondary offering, subject to the provisions of Section 2(e); with respect to filing

on Form S-3 or other appropriate form; provided, however, that prior to filing such amendment, the Company shall be obligated to use reasonable efforts to advocate with the Commission for the registration of all of the Registrable Securities in accordance with the SEC Guidance, including without limitation, Compliance and Disclosure Interpretation 612.09.

(c) Notwithstanding any other provision of this Agreement, if any SEC Guidance sets forth a limitation on the number of Registrable Securities permitted to be registered on a particular Registration Statement as a secondary offering (and notwithstanding that the Company used commercially reasonable efforts to advocate with the Commission for the registration of all or a greater portion of Registrable Securities), unless otherwise directed in writing by a Holder as to its Registrable Securities, the number of Registrable Securities to be registered on such Registration Statement will first be reduced by Registrable Securities not acquired pursuant to the Purchase Agreements (whether pursuant to registration rights or otherwise), and second by Registrable Securities represented by Shares (applied, in the case that some Shares may be registered, to the Holders on a pro rata basis based on the total number of unregistered Shares held by such Holders, subject to a determination by the Commission that certain Holders must be reduced first based on the number of Shares held by such Holders). In the event the Company amends the Initial Registration Statement or files a new registration statement, as the case may be, the Company will use its reasonable best efforts to file with the Commission, as promptly as allowed by the Commission or SEC Guidance provided to the Company or to registrants of securities in general, one or more Registration Statements on Form S-3 or such other form available to register for resale those Registrable Securities that were not registered for resale on the Initial Registration Statement, as amended.

(d) If Form S-3 is not available for the registration of the resale of Registrable Securities hereunder, the Company shall (i) register the resale of the Registrable Securities on another appropriate form and (ii) undertake to register the Registrable Securities on Form S-3 as soon as such form is available, provided that 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 Commission.

(e) Notwithstanding anything to the contrary contained herein, in no event shall the Company be permitted to name any Holder or affiliate of a Holder as any underwriter without the prior written consent of such Holder. In no event shall any Holder be identified as a statutory underwriter in the Registration Statement unless in response to a comment or request from the staff of the Commission or another regulatory agency; provided, however, that if the Commission requests that a Holder be identified as a statutory underwriter in the Registration Statement, such Holder will have an opportunity to withdraw from the Registration Statement.

3. Registration Procedures.

In connection with the Company's registration obligations hereunder, the Company shall:

(a) Not less than five (5) Trading Days prior to the filing of each Registration Statement and not less than one (1) Trading Day prior to the filing of any related Prospectus or any amendment or supplement thereto (including any document that would be incorporated or deemed to be incorporated therein by reference), the Company shall (i) furnish to each Holder copies of all such documents proposed to be filed, which documents (other than those incorporated or deemed to be incorporated by reference) will be subject to the review of such Holders, and (ii) use diligent efforts to cause its officers and directors, counsel and independent registered public accountants to respond to such inquiries as shall be necessary, in the reasonable opinion of respective counsel to each

Holder, to conduct a reasonable investigation within the meaning of the Securities Act. The Company shall not file a Registration Statement or any such Prospectus or any amendments or supplements thereto to which the Holders of a majority of the Registrable Securities shall reasonably object in good faith, provided that, the Company is notified of such objection in writing no later than five (5) Trading Days after the Holders have been so furnished copies of a Registration Statement or one (1) Trading Day after the Holders have been so furnished copies of any related Prospectus or amendments or supplements thereto. Each Holder agrees to furnish to the Company a completed questionnaire in the form attached to this Agreement as Annex C (a “Selling Stockholder Questionnaire”) on a date that is not less than two (2) Trading Days prior to the Filing Date or by the end of the fourth (4th) Trading Day following the date on which such Holder receives draft materials in accordance with this Section. The Company shall not be required to include any Registrable Securities in the Registration Statement for any Holder that has not provided such Selling Stockholder Questionnaire.

(b) (i) Prepare and file with the Commission such amendments, including post-effective amendments, to a Registration Statement and the Prospectus used in connection therewith as may be necessary to keep a Registration Statement continuously effective as to the applicable Registrable Securities for the Effectiveness Period and prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all of the Registrable Securities, (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement (subject to the terms of this Agreement), and, as so supplemented or amended, to be filed pursuant to Rule 424, (iii) respond as promptly as reasonably possible to any comments received from the Commission with respect to a Registration Statement or any amendment thereto and provide as promptly as reasonably possible to the Holders true and complete copies of all correspondence from and to the Commission relating to a Registration Statement (provided that, the Company shall excise any information contained therein which would constitute material non-public information regarding the Company or any of its Subsidiaries), and (iv) comply in all material respects with the applicable provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by a Registration Statement during the applicable period in accordance (subject to the terms of this Agreement) with the intended methods of disposition by the Holders thereof set forth in such Registration Statement as so amended or in such Prospectus as so supplemented.

(c) If during the Effectiveness Period, the number of Registrable Securities at any time exceeds 100% of the number of shares of Common Stock then registered in a Registration Statement, then the Company shall file as soon as reasonably practicable, but in any case prior to the applicable Filing Date, an additional Registration Statement covering the resale by the Holders of not less than the number of such Registrable Securities.

(d) Notify the Holders of Registrable Securities to be sold (which notice shall, pursuant to clauses (iii) through (vi) hereof, be accompanied by an instruction to suspend the use of the Prospectus until the requisite changes have been made) as promptly as reasonably possible (and, in the case of (i)(A) below, not less than one (1) Trading Day prior to such filing) and (if requested by any such Person) confirm such notice in writing no later than one (1) Trading Day following the day (i)(A) when a Prospectus or any Prospectus supplement or post-effective amendment to a Registration Statement is proposed to be filed, (B) when the Commission notifies the Company whether there will be a “review” of such Registration Statement and whenever the Commission comments in writing on such Registration Statement, and (C) with respect to a Registration Statement or any post-effective amendment, when the same has become effective, (ii) of any request by the Commission or any other federal or state governmental authority for amendments or supplements to a Registration Statement or Prospectus or for additional information, (iii) of the

issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of a Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceedings for that purpose, (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any Proceeding for such purpose, (v) of the occurrence of any event or passage of time that makes the financial statements included in a Registration Statement ineligible for inclusion therein or any statement made in a Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to a Registration Statement, Prospectus or other documents so that, in the case of a Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and (vi) of the occurrence or existence of any pending corporate development with respect to the Company that the Company believes may be material and that, in the determination of the Company, makes it not in the best interest of the Company to allow continued availability of a Registration Statement or Prospectus; provided, however, that in no event shall any such notice contain any information which would constitute material, non-public information regarding the Company or any of its Subsidiaries.

(e) Use its reasonable best efforts to avoid the issuance of, or, if issued, obtain the withdrawal of (i) any order stopping or suspending the effectiveness of a Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, at the earliest practicable moment.

(f) If requested by a Holder, furnish to each Holder, without charge, at least one conformed copy of each such Registration Statement and each amendment thereto, including financial statements and schedules, all documents incorporated or deemed to be incorporated therein by reference to the extent requested by such Person, and all exhibits to the extent requested by such Person (including those previously furnished or incorporated by reference) promptly after the filing of such documents with the Commission, provided that any such item which is available on the EDGAR system (or successor thereto) need not be furnished in physical form.

(g) Subject to the terms of this Agreement, the Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto, except after the giving of any notice pursuant to Section 3(d).

(h) Prior to any resale of Registrable Securities by a Holder, use its commercially reasonable efforts to register or qualify or cooperate with the selling Holders in connection with the registration or qualification (or exemption from the Registration or qualification) of such Registrable Securities for the resale by the Holder under the securities or Blue Sky laws of such jurisdictions within the United States as any Holder reasonably requests in writing, to keep each registration or qualification (or exemption therefrom) effective during the Effectiveness Period and to do any and all other acts or things reasonably necessary to enable the disposition in such jurisdictions of the Registrable Securities covered by each Registration Statement, provided that the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified, subject the Company to any material tax in any such jurisdiction where it is not then so subject or file a general consent to service of process in any such jurisdiction.

(i) If requested by a Holder, cooperate with such Holder to facilitate the timely preparation and delivery of certificates or book entry statements, as applicable, representing Registrable Securities to be delivered to a transferee pursuant to a Registration Statement, which certificates shall be free, to the extent permitted by the Purchase Agreements, of all restrictive legends, and to enable such Registrable Securities to be in such denominations and registered in such names as any such Holder may reasonably request; provided that Holder furnishes to Company a completed Holder Representation Letter in substantially the form attached hereto as Annex D and such other customary representations as may be required in connection therewith, subject to reasonable consent by such Holder.

(j) Upon the occurrence of any event contemplated by Section 3(d), as promptly as reasonably possible under the circumstances taking into account the Company's good faith assessment of any adverse consequences to the Company and its stockholders of the premature disclosure of such event, prepare a supplement or amendment, including a post-effective amendment, to a Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither a Registration Statement nor such Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Company notifies the Holders in accordance with clauses (iii) through (v) of Section 3(d) above to suspend the use of any Prospectus until the requisite changes to such Prospectus have been made, then the Holders shall suspend use of such Prospectus. The Company will use its reasonable best efforts to ensure that the use of the Prospectus may be resumed as promptly as is practicable. The Company shall be entitled to exercise its right under this Section 3(j) to suspend the availability of a Registration Statement and Prospectus for a period not to exceed 60 calendar days (which need not be consecutive days) in any 12-month period.

(k) Otherwise use commercially reasonable efforts to comply with all applicable rules and regulations of the Commission under the Securities Act and the Exchange Act, including, without limitation, Rule 172 under the Securities Act, file any final Prospectus, including any supplement or amendment thereof, with the Commission pursuant to Rule 424 under the Securities Act, promptly inform the Holders 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 Holders 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.

(l) The Company shall use commercially reasonable efforts to maintain eligibility for use of Form S-3 (or any successor form thereto) for the registration of the resale of the Registrable Securities once it becomes eligible to use such form.

(m) For not more than thirty (30) consecutive days or for a total of not more than sixty (60) days, in each case in any twelve (12) month period, the Company may suspend the use of any Prospectus included in any Registration Statement contemplated by this Section 3 if the negotiation or consummation of a transaction by the Company is pending or an event has occurred, which negotiation, consummation or event, the Board of Directors of the Company (the "Board") reasonably believes, upon the advice of legal counsel, would require additional disclosure by the Company in the Registration Statement of material information that the Company has a bona fide business purpose for keeping confidential and the non-disclosure of which in the Registration Statement would be expected, in the reasonable determination of the Board, upon the advice of legal counsel, to cause the Registration Statement to fail to comply with applicable disclosure

requirements (an “Allowed Delay”); provided, that the Company shall promptly (1) notify each Holder in writing of the commencement of an Allowed Delay, but shall not (without the prior written consent of a Holder) disclose to such Holder any material non-public information giving rise to an Allowed Delay, (2) advise the Holders in writing to cease all sales under such Registration Statement until the end of the Allowed Delay and (3) use commercially reasonable efforts to terminate an Allowed Delay as promptly as practicable.

(n) The Company may require each selling Holder to furnish to the Company a certified statement as to the number of shares of Common Stock beneficially owned by such Holder and, if required by the Commission, the natural persons thereof that have voting and dispositive control over the shares.

4. Registration Expenses. All fees and expenses incident to the performance of or compliance with, this Agreement by the Company shall be borne by the Company whether or not any Registrable Securities are sold pursuant to a Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses of the Company’s counsel and independent registered public accountants) (A) with respect to filings made with the Commission, (B) with respect to filings required to be made with any Trading Market on which the Common Stock is then listed for trading, and (C) in compliance with applicable state securities or Blue Sky laws reasonably agreed to by the Company in writing (including, without limitation, fees and disbursements of counsel for the Company in connection with Blue Sky qualifications or exemptions of the Registrable Securities), (ii) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities), (iii) messenger, telephone and delivery expenses, (iv) fees and disbursements of counsel for the Company, (v) Securities Act liability insurance, if the Company so desires such insurance, and (vi) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement. In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit and the fees and expenses incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder. In no event shall the Company be responsible for any underwriting, broker or similar fees or commissions of any Holder or, except to the extent provided for in the Transaction Documents, any legal fees or other costs of the Holders.

5. Indemnification.

(a) Indemnification by the Company. The Company shall, notwithstanding any termination of this Agreement, indemnify and hold harmless each Holder, the officers, directors, members, partners, agents, brokers (including brokers who offer and sell Registrable Securities as principal as a result of a pledge or any failure to perform under a margin call of Common Stock), investment advisors and employees (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title) of each of them, each Person who controls any such Holder (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, members, stockholders, partners, agents and employees (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title) of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages, liabilities, costs (including, without limitation, reasonable and documented attorneys’ fees) and expenses (collectively, “Losses”), as incurred, arising out of and solely to the extent relating to (1) any untrue or alleged untrue statement of a material fact contained in a Registration Statement, any Prospectus or any form of prospectus or in any amendment or supplement thereto or in any

preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading or (2) any violation or alleged violation by the Company of the Securities Act, the Exchange Act or any state securities law, or any rule or regulation thereunder, in connection with the performance of its obligations under this Agreement, except to the extent, but only to the extent, that (i) such untrue statements or omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein, or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was reviewed and expressly approved in writing by such Holder expressly for use in a Registration Statement, such Prospectus or in any amendment or supplement thereto (it being understood that the Holder has approved Annex A hereto for this purpose) or (ii) in the case of an occurrence of an event of the type specified in Section 3(d)(iii)-(vi), the use by such Holder of an outdated, defective or otherwise unavailable Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated, defective or otherwise unavailable for use by such Holder and prior to the receipt by such Holder of the Advice contemplated in Section 6(c). The Company shall notify the Holders promptly of the institution, threat or assertion of any Proceeding arising from or in connection with the transactions contemplated by this Agreement of which the Company is aware. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such indemnified person and shall survive the transfer of any Registrable Securities by any of the Holders in accordance with Section 6(f).

(b) Indemnification by Holders. Each Holder shall, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents and employees, each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents or employees of such controlling Persons, to the fullest extent permitted by applicable law, from and against all Losses, as incurred, to the extent arising out and solely to the extent relating to: any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus, or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading (i) to the extent, but only to the extent, that such untrue statement or omission is contained in any information so furnished in writing by such Holder to the Company expressly for inclusion in such Registration Statement or such Prospectus or (ii) to the extent, but only to the extent, that such information relates to such Holder's information provided in the Selling Stockholder Questionnaire or the proposed method of distribution of Registrable Securities and was reviewed and expressly approved in writing by such Holder expressly for use in a Registration Statement (it being understood that the Holder has approved Annex A hereto for this purpose), such Prospectus or in any amendment or supplement thereto. In no event shall the liability of a selling Holder be greater in amount than the dollar amount of the proceeds (net of all expenses paid by such Holder in connection with any claim relating to this Section 5 and the amount of any damages such Holder has otherwise been required to pay by reason of such untrue statement or omission) received by such Holder upon the sale of the Registrable Securities included in the Registration Statement giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "Indemnified Party"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the "Indemnifying Party") in writing, and the Indemnifying Party shall have the right to assume the defense thereof, including

the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all reasonable fees and expenses incurred in connection with defense thereof, provided that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have materially and adversely prejudiced the Indemnifying Party.

An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (1) the Indemnifying Party has agreed in writing to pay such fees and expenses, (2) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding, or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party and the Indemnifying Party, and counsel to the Indemnified Party shall reasonably believe that a material conflict of interest is likely to exist if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and the reasonable fees and expenses of no more than one separate counsel shall be at the expense of the Indemnifying Party). The Indemnifying Party shall not be liable for any settlement of any such Proceeding effected without its written consent, which consent shall not be unreasonably withheld or delayed. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding.

Subject to the terms of this Agreement, all reasonable and documented fees and expenses of the Indemnified Party (including reasonable and documented fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within ten Trading Days of written notice thereof to the Indemnifying Party, provided that the Indemnified Party shall promptly reimburse the Indemnifying Party for that portion of such fees and expenses applicable to such actions for which such Indemnified Party is finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) not to be entitled to indemnification hereunder.

(d) Contribution. If the indemnification under Section 5(a) or 5(b) is unavailable to an Indemnified Party or insufficient to hold an Indemnified Party harmless for any Losses, then each Indemnifying Party shall contribute to the amount paid or payable by such Indemnified Party, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in this Agreement, any reasonable attorneys'

or other fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5(d) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. In no event shall the contribution obligation of a Holder of Registrable Securities be greater in amount than the dollar amount of the proceeds (net of all expenses paid by such Holder in connection with any claim relating to this Section 5 and the amount of any damages such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission) received by it upon the sale of the Registrable Securities giving rise to such contribution obligation.

The indemnity and contribution agreements contained in this Section are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties.

6. Miscellaneous.

(a) Remedies. In the event of a breach by the Company or by a Holder of any of their respective obligations under this Agreement, each Holder or the Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, shall be entitled to specific performance of its rights under this Agreement. Each of the Company and each Holder agrees that monetary damages would not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement and hereby further agrees that, in the event of any action for specific performance in respect of such breach, it shall not assert or shall waive the defense that a remedy at law would be adequate.

(b) No Piggyback on Registrations; Prohibition on Filing Other Registration Statements. Neither the Company nor any of its security holders (other than the Holders in such capacity pursuant hereto) may include securities of the Company in any Registration Statements other than the Registrable Securities. The Company shall not file any other registration statements until all Registrable Securities are registered pursuant to a Registration Statement that is declared effective by the Commission, provided that this Section 6(b) shall not prohibit the Company from filing amendments to registration statements filed prior to the date of this Agreement so long as no new securities are registered on any such existing registration statements, nor preparing and filing with the Commission a registration statements on Form S-8 relating to its equity incentive plans.

(c) Discontinued Disposition. By its acquisition of Registrable Securities, each Holder agrees that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 3(d)(iii) through (v), such Holder will forthwith discontinue disposition of such Registrable Securities under a Registration Statement until it is advised in writing (the "Advice") by the Company that the use of the applicable Prospectus (as it may have been supplemented or amended) may be resumed. The Company will use its reasonable best efforts to ensure that the use of the Prospectus may be resumed as promptly as is practicable.

(d) Amendments and Waivers. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the same shall be in writing and signed by the Company and the Holders of 50.1% or more of the then outstanding Registrable Securities (for purposes of clarification, this includes any Registrable Securities issuable upon exercise or conversion of any Security), provided that, if

any amendment, modification or waiver disproportionately and adversely impacts a Holder (or group of Holders), the consent of such disproportionately impacted Holder (or group of Holders) shall be required. If a Registration Statement does not register all of the Registrable Securities pursuant to a waiver or amendment done in compliance with the previous sentence, then the number of Registrable Securities to be registered for each Holder shall be reduced pro rata among all Holders and each Holder shall have the right to designate which of its Registrable Securities shall be omitted from such Registration Statement. Notwithstanding the foregoing, a waiver or consent to depart from the provisions hereof with respect to a matter that relates exclusively to the rights of a Holder or some Holders and that does not directly or indirectly affect the rights of other Holders may be given only by such Holder or Holders of all of the Registrable Securities to which such waiver or consent relates; provided, however, that the provisions of this sentence may not be amended, modified, or supplemented except in accordance with the provisions of the first sentence of this Section 6(d). No consideration shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of this Agreement unless the same consideration also is offered to all of the parties to this Agreement.

(e) Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be delivered as set forth in the Purchase Agreements.

(f) Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties and shall inure to the benefit of each Holder. The Company may not assign (except by merger) its rights or obligations hereunder without the prior written consent of all of the Holders of the then outstanding Registrable Securities. Each Holder may assign their respective rights hereunder in the manner and to the Persons as permitted under Section 5.7 of the Purchase Agreement to which such Holder is a party.

(g) No Inconsistent Agreements. Neither the Company nor any of its Subsidiaries has entered, as of the date hereof, nor shall the Company or any of its Subsidiaries, on or after the date of this Agreement, enter into any agreement with respect to its securities, that would have the effect of impairing the rights granted to the Holders in this Agreement or otherwise conflicts with the provisions hereof. Except as set forth in any reports, forms or other documents as required to be filed by the Company under the Securities Act and the Exchange Act, neither the Company nor any of its Subsidiaries has previously entered into any agreement granting any registration rights with respect to any of its securities to any Person that have not been satisfied in full.

(h) Execution and Counterparts. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a “.pdf” format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or “.pdf” signature page were an original thereof.

(i) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be determined in accordance with the provisions of the Purchase Agreement to which the Purchaser with respect to which such question has arisen is party.

(j) Cumulative Remedies. The remedies provided herein are cumulative and not exclusive of any other remedies provided by law.

(k) Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms,

provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their reasonable best efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

(l) Headings. The headings in this Agreement are for convenience only, do not constitute a part of the Agreement and shall not be deemed to limit or affect any of the provisions hereof.

(m) Independent Nature of Holders' Obligations and Rights. The obligations of each Holder hereunder are several and not joint with the obligations of any other Holder hereunder, and no Holder 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 Holder pursuant hereto or thereto, shall be deemed to constitute the Holders 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 Holders 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 Holder 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 Holder 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 Holder, 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 a Holder, solely, and not between the Company and the Holders collectively and not between and among Holders.

(Signature Pages Follow)

IN WITNESS WHEREOF, the parties have executed this Registration Rights Agreement as of the date first written above.

2SEVENTY BIO. INC.

By: _____

Name:

Title:

[SIGNATURE PAGE OF HOLDERS FOLLOWS]

[SIGNATURE PAGE OF HOLDERS TO RRA]

Name of Holder: _____

Signature of Authorized Signatory of Holder: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

[SIGNATURE PAGES CONTINUE]



2seventy bio Secures \$170 Million in Private Placement Equity Financing

Proceeds to support 2seventy bio's pipeline of novel cell therapy programs

Financing, combined with reduced net cash spend and ABECMA commercial progress, supports extension of cash runway into 2025

CAMBRIDGE, Mass. – March 16, 2022 – [2seventy bio, Inc.](#) (Nasdaq: TSVT), a leading immuno-oncology cell therapy company, announced today that it has agreed to sell approximately 13,934,427 shares of its common stock to a select group of institutional and accredited investors in a private placement. Upon the closing of the financing, 2seventy bio will receive gross proceeds of approximately \$170 million, before payment of offering commissions and expenses, based on a price of \$12.20 per share, the closing price of 2seventy bio's common stock on Nasdaq on March 15, 2022. The financing is expected to close on March 17, 2022, subject to customary closing conditions. Proceeds from the financing will support 2seventy bio's ongoing research and development activities as well as general corporate purposes and working capital.

The private placement included top healthcare investors: 683 Capital, Armistice Capital, Bain Capital Life Sciences, Boxer Capital, CaaS Capital, Casdin Capital, Cowen Healthcare Investments, EcoR1 Capital, Heights Capital Management, Janus Henderson Investors, Madison Avenue Partners, Newtyn Management, Nick Leschly & family, RTW Investments, and existing investors.

“Roughly 100 days into the launch of 2seventy bio, we have taken important steps to secure the company's financial foundation. We have increasing conviction in the ABECMA U.S. commercial launch, we are executing on a plan to rebalance our burn, and we have secured important funding from leading healthcare investors. Taken together, we expect these steps will get us through critical milestones and into 2025,” said Nick Leschly, chief kairos officer. “After conducting diligence to understand our platform, pipeline and the commercial outlook for ABECMA, we are pleased to welcome many new investors to our shareholder base. We believe you end up with the investors you deserve, and we have a shareholder base that has a common belief in our mission, an un-incremental, long-term orientation, and the ability to go deep on the science.”

2seventy bio ended 2021 with cash, cash equivalents and marketable securities of \$362.2 million. Combined with the company's expectations for U.S. ABECMA commercial sales in 2022, a reduction in expected net cash spend for 2022 to a range of \$190 to \$220 million, and the net proceeds from the private placement, the company anticipates that it will have sufficient cash and cash equivalents to fund current planned operations into 2025. 2seventy bio anticipates that this runway will bring the company through meaningful clinical data updates, new INDs and continued progress in the commercialization of ABECMA.

Goldman Sachs & Co. LLC acted as exclusive placement agent. The shares of common stock described above are being sold in a private placement and have not been registered under the Securities Act of 1933, as amended, and may not be offered or sold in the United States absent registration or an applicable exemption from registration requirements. The company has agreed to file a resale registration statement with the Securities and Exchange Commission, for purposes of registering the resale of the shares of common stock issued in the offering.

This press release does not constitute an offer to sell or the solicitation of an offer to buy the shares of common stock described above, nor shall there be any sale of the securities in any state in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities



laws of such state. Any offering of the shares or common stock described above under the resale registration statement will only be by means of a prospectus.

About 2seventy bio

Our name, 2seventy bio, reflects why we do what we do - TIME. Cancer rips time away, and our goal is to work at the maximum speed of translating human thought into action – 270 miles per hour – to give the people we serve more time. We are building the leading immuno-oncology cell therapy company, focused on discovering and developing new therapies that truly disrupt the cancer treatment landscape.

With a deep understanding of the human body's immune response to tumor cells and how to translate cell therapies into practice, we're applying this knowledge to deliver next generation cellular therapies that focus on a broad range of hematologic malignancies, including the first FDA-approved CAR T cell therapy for multiple myeloma, as well as solid tumors. Our research and development is focused on delivering therapies that are designed with the goal to “think” smarter and faster than the disease. Importantly, we remain focused on accomplishing these goals by staying genuine and authentic to our “why” and keeping our people and culture top of mind every day.

For more information, visit www.2seventybio.com.

Follow 2seventy bio on social media: [Twitter](#) and [LinkedIn](#).

2seventy bio is a trademark of 2seventy bio, Inc.

Cautionary Note Regarding Forward-Looking Statements

This release contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include, but are not limited to: statements regarding the expected timing for the closing of the private placement; the anticipated use of proceeds from the private placement; expectations regarding ABECMA commercial sales; planned net cash spend in 2022; and expected cash runway and the impact thereof. Any forward-looking statements in this press release are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including, without limitation, the risk that we may not achieve the expected benefits of the separation; the risk that the separation could harm our business, results of operations and financial condition; our lack of independent operating history and the risk that its accounting and other management systems may not be prepared to meet the financial reporting and other requirements of operating as an independent public company; the risk that we may be unable to make, on a timely or cost-effective basis, the changes necessary to operate as an independent company; the risk that dedicated financial and/or strategic funding sources may not be available on favorable terms or at all; the risk that the separation may adversely impact our ability to attract or retain key personnel; the risk that the separation may adversely impact the effectiveness of development and commercialization efforts by us and our partners; the risk of possible disruption to our business as a result of the separation; the risk that our BLAs and INDs will not be accepted for filing by the FDA on the timeline that we expect, or at all; the risk that our plans with respect to the preclinical and clinical development and regulatory approval of our product candidates may not be successfully achieved on the planned timeline, or at all; the risk that ABECMA will not be as commercially successful as we may anticipate; and the risk that we are unable to manage our operating expenses or cash use for operations. For a discussion of other risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the section entitled “Risk Factors” in the information statement contained in our Registration Statement on Form 10, as supplemented and/or modified by our most



recent Quarterly Report on Form 10-Q and any other filings that we have made or will make with the Securities and Exchange Commission in the future. All information in this press release is as of the date of the release, and 2seventy bio undertakes no duty to update this information unless required by law.

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