

**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): August 19, 2024

PHATHOM PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

001-39094
(Commission
File Number)

82-4151574
(I.R.S. Employer
Identification No.)

**100 Campus Drive, Suite 102
Florham Park, New Jersey 07932**
(Address of principal executive offices) (Zip Code)

(877) 742-8466
(Registrant's telephone number, include area code)

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

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

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	PHAT	The Nasdaq Global Select Market

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

Emerging growth company

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

Item 8.01 Other Events.

On August 19, 2024, Phathom Pharmaceuticals, Inc. (“Phathom” or the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Evercore Group L.L.C., Stifel, Nicolaus & Company, Incorporated and Guggenheim Securities, LLC, as representatives of the several underwriters named therein (collectively, the “Underwriters”), relating to the issuance and sale of (i) 8,695,652 shares (the “Shares”) of the Company’s common stock, par value \$0.0001 per share (the “Common Stock”), at an offering price of \$11.50 per share, and (ii) with respect to certain investors, pre-funded warrants to purchase an aggregate of 2,608,922 shares of Common Stock at a price of \$11.499 per pre-funded warrant (the “Pre-Funded Warrants”), which represents the per share price for the Shares less a nominal \$0.001 per share exercise price for each Pre-Funded Warrant. The net proceeds to the Company from the Offering are expected to be approximately \$121.7 million, before deducting underwriting discounts and commissions and estimated offering expenses. The offering is expected to close on August 20, 2024, subject to the satisfaction of customary closing conditions.

Each Pre-Funded Warrant will have an exercise price of \$0.001 per share of Common Stock, will be immediately exercisable on the date of issuance and will not expire. Under the terms of the Pre-Funded Warrants, the Company may not effect the exercise of any Pre-Funded Warrant, and a holder will not be entitled to exercise any portion of any Pre-Funded Warrant, which, upon giving effect to such exercise, would cause a holder (together with its affiliates) to own more than a specified beneficial ownership limitation of 19.99% (or such other percentage that was elected by such holder prior to the issuance of the Pre-Funded Warrants) of the number of shares of the Common Stock outstanding immediately after giving effect to such exercise, as such percentage ownership is determined in accordance with the terms of the Pre-Funded Warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 19.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice is delivered to the Company.

The exercise price and the number of shares of Common Stock issuable upon exercise of each Pre-Funded Warrant will be subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting the Common Stock, as well as upon any distribution of assets, including cash, stock or other property, to Company’s stockholders.

In the event of certain fundamental transactions (as described in the Pre-Funded Warrants), a holder of Pre-Funded Warrants will be entitled to receive, upon exercise of the Pre-Funded Warrants, the kind and amount of securities, cash or property that such holder would have received had they exercised in full the Pre-Funded Warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the Pre-Funded Warrants.

The offering is being made pursuant to the Company’s shelf registration statement on Form S-3 (Registration Statement No. 333-275431), including the prospectus included therein, previously filed with and declared effective by the Securities and Exchange Commission (the “SEC”), and a prospectus supplement and the accompanying prospectus filed with the SEC pursuant to Rule 424(b) under the Securities Act of 1933, as amended (the “Securities Act”).

The Underwriting Agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company and the Underwriters, including for liabilities under the Securities Act, other obligations of the parties and termination provisions. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement, and may be subject to limitations agreed upon by the contracting parties.

The foregoing description of the Underwriting Agreement and the Pre-Funded Warrants are not complete and are qualified in their entirety by reference to the full text of the Underwriting Agreement and form of Pre-Funded Warrant, copies of which are filed as Exhibit 1.1 and Exhibit 4.1, respectively to this report and which are incorporated by reference herein. A copy of the opinion of Latham & Watkins LLP, relating to the legality of the issuance and sale of the Shares and Pre-Funded Warrants in the Offering is attached as Exhibit 5.1 to this report.

The Company issued a press release on August 19, 2024 announcing the pricing of the offering, which is attached as Exhibit 99.1 to this report.

Phathom cautions you that statements included in this report that are not a description of historical facts are forward-looking statements. These forward-looking statements include statements regarding the completion of the offering and the expected net proceeds therefrom. The inclusion of forward-looking statements should not be regarded as a representation by Phathom that any of these results will be achieved. Actual results may differ from those set forth in this report due to the risks and uncertainties associated with market conditions and the satisfaction of customary closing conditions related to the offering, as well as risks and uncertainties inherent in Phathom's business, including those described in the Company's other filings with the SEC. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and Phathom undertakes no obligation to revise or update this report to reflect events or circumstances after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement. This caution is made under the safe harbor provisions of Section 21E of the Private Securities Litigation Reform Act of 1995.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
1.1	<u>Underwriting Agreement, dated August 19, 2024, by and among Phathom Pharmaceuticals, Inc. and Evercore Group L.L.C., Stifel, Nicolaus & Company, Incorporated and Guggenheim Securities, LLC, as representatives of the several underwriters named therein</u>
4.1	<u>Form of Pre-Funded Warrant</u>
5.1	<u>Opinion of Latham & Watkins LLP</u>
23.1	<u>Consent of Latham & Watkins LLP (included in Exhibit 5.1)</u>
99.1	<u>Press Release dated August 19, 2024</u>
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.

PHATHOM PHARMACEUTICALS, INC.

Date: August 19, 2024

By: /s/ Molly Henderson
Molly Henderson
Chief Financial and Business Officer

Phathom Pharmaceuticals, Inc.
Common Stock, par value \$0.0001 per share
Pre-Funded Warrants to Purchase Shares of Common Stock

Underwriting Agreement

August 19, 2024

Evercore Group L.L.C.
Stifel, Nicolaus & Company, Incorporated
Guggenheim Securities, LLC

As representatives of the several Underwriters named in Schedule I hereto,

c/o Evercore Group L.L.C.
55 East 52nd Street
New York, New York 10055

c/o Stifel, Nicolaus & Company, Incorporated
787 Seventh Avenue, 11th Floor
New York, New York 10019

c/o Guggenheim Securities, LLC
330 Madison Avenue
New York, New York 10017

Ladies and Gentlemen:

Phathom Pharmaceuticals, Inc., a Delaware corporation (the “Company”), proposes, subject to the terms and conditions stated in this agreement (this “Agreement”), to issue and sell to the several underwriters named in Schedule I hereto (the “Underwriters”) for whom you are acting as representatives (the “Representatives”) (i) an aggregate of 8,695,652 shares of common stock, par value \$0.0001 per share (“Stock”), of the Company (the “Shares”), and (ii) pre-funded warrants to purchase an aggregate of 2,608,922 shares of Stock in the form attached hereto as Annex II (the “Pre-Funded Warrants”). The Shares and the Pre-Funded Warrants to be sold by the Company are collectively referred to as the “Securities.” As used herein, “Warrant Shares” means the shares of Stock issuable upon exercise of the Pre-Funded Warrants.

1. The Company represents and warrants to, and agrees with, each of the Underwriters that:

(a) A registration statement on Form S-3 (File No. 333-275431) (the “Initial Registration Statement”) in respect of the Securities has been filed with the Securities and Exchange Commission (the “Commission”); the Initial Registration Statement and any post-effective amendment thereto, each in the form heretofore delivered to you, have been declared effective by the Commission in such form; other than a registration statement, if any, increasing the size of the offering (a “Rule 462(b) Registration Statement”), filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the “Act”), which became effective upon filing, no other document with respect to the Initial Registration Statement or other document incorporated by reference therein has been filed, or transmitted for filing, with the Commission (other than prospectuses filed pursuant to Rule 424(b) of the rules and regulations of the Commission under the Act, each in the form heretofore delivered to the Representatives); and no stop order suspending the effectiveness of the Initial Registration Statement, any post-effective amendment thereto or any part thereof or the Rule 462(b) Registration Statement, if any, has been issued and no proceeding for that purpose has been initiated or threatened by the Commission (the base prospectus filed as part of the Initial Registration Statement, in the form in which it has most recently been filed with the Commission on or prior to the date of this Agreement relating to the Securities, is hereinafter called the “Basic Prospectus”; any preliminary prospectus (including any preliminary prospectus supplement) relating to the Securities filed with the Commission pursuant to Rule 424(b) or the rules or regulations of the Commission under the Act is hereinafter called a “Preliminary Prospectus”; the various parts of the Initial Registration Statement and the Rule 462(b) Registration Statement, if any, including all exhibits thereto and including any prospectus supplement relating to the Securities that is filed with the Commission and deemed by virtue of Rule 430B under the Act to be part of the Initial Registration Statement, each as amended at the time such part of the Initial Registration Statement became effective or such part of the Rule 462(b) Registration Statement, if any, became or hereafter becomes effective, are hereinafter collectively called the “Registration Statement”; the Basic Prospectus, as amended and supplemented immediately prior to the Applicable Time (as defined in Section 1(c) hereof), is hereinafter called the “Pricing Prospectus”; the form of the final prospectus relating to the Securities filed with Commission pursuant to Rule 424(b) under the Act in accordance with Section 5(a) hereof is hereinafter called the “Prospectus”; any reference herein to the Basic Prospectus, the Pricing Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3, as of the date of such prospectus; any reference to any amendment or supplement to the Basic Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any post-effective amendment to the Registration Statement, any prospectus supplement relating to the Securities filed with the Commission pursuant to Rule 424(b) under the Act and any documents filed under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and incorporated therein, in each case after the date of the Basic Prospectus, such Preliminary Prospectus or the Prospectus, as the case may be; any reference to any amendment to the Registration Statement shall be deemed to refer to and include any annual report of the Company filed pursuant to Section 13(a) or 15(d) of the Exchange Act after the effective date of the Registration Statement that is incorporated by reference in the Registration Statement; any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Act or Rule 163B under the Act is hereinafter called a “Section 5(d) Communication”; and any Section 5(d) Communication that is a written communication within the meaning of Rule 405 under the Act is hereinafter called a “Section 5(d) Writing”; and any “issuer free writing prospectus” as defined in Rule 433 under the Act relating to the Securities is hereinafter called an “Issuer Free Writing Prospectus”);

(b) (A) No order preventing or suspending the use of any Preliminary Prospectus or any Issuer Free Writing Prospectus has been issued by the Commission, and (B) each Preliminary Prospectus, if any, at the time of filing thereof, conformed in all material respects to the requirements of the Act and the rules and regulations of the Commission thereunder, and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with the Underwriter Information (as defined in Section 9(b) of this Agreement);

(c) For the purposes of this Agreement, the “Applicable Time” is 6:30 a.m. (Eastern time) on the date of this Agreement. The Pricing Prospectus, as supplemented by the information listed on Schedule II(c) hereto, taken together (collectively, the “Pricing Disclosure Package”), as of the Applicable Time, did not, and as of the Time of Delivery (as defined in Section 4(a) of this Agreement) will not, include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each Issuer Free Writing Prospectus and each Section 5(d) Writing does not conflict with the information contained in the Registration Statement, the Pricing Prospectus or the Prospectus and each Issuer Free Writing Prospectus and each Section 5(d) Writing, as supplemented by and taken together with the Pricing Disclosure Package, as of the Applicable Time, did not, and as of the Time of Delivery will not, include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that this representation and warranty shall not apply to statements or omissions made in reliance upon and in conformity with the Underwriter Information;

(d) The documents incorporated by reference in the Pricing Disclosure Package and the Prospectus, when they became effective or were filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder, and none of such documents contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading; and any further documents so filed and incorporated by reference in the Pricing Disclosure Package and the Prospectus or any further amendment or supplement thereto, when such documents become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; and no such or any other documents were filed with the Commission since the Commission’s close of business on the business day immediately prior to the date of this Agreement and prior to the execution of this Agreement, except as set forth on Schedule II(b) hereto;

(e) The Registration Statement conforms, and the Prospectus and any further amendments or supplements to the Registration Statement and the Prospectus will conform, in all material respects to the requirements of the Act and the rules and regulations of the Commission thereunder and do not and will not, as of the applicable effective date as to each part of the Registration Statement, as of the applicable filing date as to the Prospectus and any amendment or supplement thereto, and as of the Time of Delivery, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; *provided, however*, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with the Underwriter Information;

(f) The Company has not, since the date of the latest audited financial statements included or incorporated by reference in the Pricing Disclosure Package and the Prospectus, (i) sustained any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree or (ii) entered into any transaction or agreement (whether or not in the ordinary course of business) that is material to the Company or incurred any liability or obligation, direct or contingent, that is material to the Company, in each case otherwise than as set forth or contemplated in the Pricing Disclosure Package and the Prospectus; and, since the respective dates as of which information is given in the Registration Statement and the Pricing Disclosure Package and the Prospectus, there has not been (x) any change in the capital stock (other than as a result of (i) the exercise, if any, of warrants or stock options or the award, if any, of stock options or restricted stock in the ordinary course of business pursuant to the Company's equity plans that are described in the Pricing Disclosure Package and the Prospectus or (ii) the issuance, if any, of stock upon conversion of Company securities as described in the Pricing Disclosure Package and the Prospectus) or long-term debt of the Company or (y) any Material Adverse Effect (as defined below); as used in this Agreement, "Material Adverse Effect" shall mean any material adverse change or effect, or any development involving a prospective material adverse change or effect, in or affecting (i) the business, properties, general affairs, management, financial position, stockholders' equity, prospects or results of operations of the Company, except as set forth or contemplated in the Pricing Disclosure Package or the Prospectus, or (ii) the ability of the Company to perform its obligations under this Agreement, including the issuance and sale of the Securities, or to consummate the transactions contemplated in the Pricing Disclosure Package and the Prospectus;

(g) The Company does not own any real property and has good and marketable title to all personal property owned by it, in each case free and clear of all liens, encumbrances and defects except such as are described in the Pricing Disclosure Package and the Prospectus or such as do not materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company; and any real property and buildings held under lease by the Company are, to the Company's knowledge, held by the Company under valid, subsisting and enforceable leases with such exceptions as are not material and do not materially interfere with the use made and proposed to be made of such property and buildings by the Company;

(h) The Company has been (i) duly incorporated and is validly existing and in good standing under the laws of the State of Delaware, with power and authority (corporate and other) to own and/or lease its properties and conduct its business as described in the Pricing Disclosure Package and the Prospectus, and (ii) duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, except, in the case of this clause (ii), where the failure to be so qualified or in good standing would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect;

(i) The Company has no subsidiaries;

(j) The Company has an authorized capitalization as set forth in the Pricing Disclosure Package and the Prospectus and all of the issued shares of capital stock of the Company, have been duly and validly authorized and issued and are fully paid and non-assessable and conform to the description of the Stock contained in the Pricing Disclosure Package and the Prospectus;

(k) The Shares to be issued and sold by the Company to the Underwriters hereunder have been duly and validly authorized and, when issued and delivered against payment therefor as provided herein, will be duly and validly issued and fully paid and non-assessable and will conform to the description of the Stock contained in the Registration Statement, Pricing Disclosure Package and the Prospectus; and the issuance and sale of the Securities is not subject to any preemptive or similar rights that have not been complied with or otherwise effectively waived. The Pre-Funded Warrants to be issued and sold by the Company to the Underwriters hereunder have been duly authorized by the Company and, when executed and delivered by the Company, will be valid and binding agreements of the Company, enforceable against the Company in accordance with their terms. The Warrant Shares have been duly authorized and validly reserved for issuance upon exercise of the Pre-Funded Warrants in a number sufficient to meet the current exercise requirements. The Warrant Shares, when issued and delivered upon exercise of the Pre-Funded Warrants in accordance therewith, will be duly and validly issued, fully paid and nonassessable, will conform in all material respects to the descriptions thereof in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and the issuance of the Warrant Shares, is not subject to any preemptive or other similar rights that have not been complied with or otherwise effectively waived;

(l) The issue and sale of the Securities and the Warrant Shares and the compliance by the Company with this Agreement and the consummation by the Company of the transactions contemplated in this Agreement and the Pricing Disclosure Package and the Prospectus will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, (A) any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of the property or assets of the Company is subject, (B) the certificate of incorporation or by-laws (or other applicable organizational document) of the Company, or (C) any statute or any judgment, order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its properties except, in the case of clauses (A) and (C), for such defaults, breaches, or violations that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and no consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Securities and the Warrant Shares or the consummation by the Company of the transactions contemplated by this Agreement, except such as have been obtained under the Act, the approval by the Financial Industry Regulatory Authority, Inc. ("FINRA") of the underwriting terms and arrangements and such consents, approvals, authorizations, registrations or qualifications as may be required under state securities or Blue Sky laws in connection with the purchase and distribution of the Securities by the Underwriters;

(m) The Company is not (i) in violation of its certificate of incorporation or by-laws (or other applicable organizational document), (ii) in violation of any statute or any judgment, order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its properties, or (iii) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it or any of its properties may be bound, except, in the case of the foregoing clauses (ii) and (iii), for such defaults as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect;

(n) The statements set forth in the Pricing Disclosure Package and the Prospectus under the captions “Description of Capital Stock” and “Description of Pre-Funded Warrants”, insofar as they purport to constitute a summary of the terms of the Stock and Pre-Funded Warrants, and under the captions “Material U.S. Federal Income Tax Consequences of Our Common Stock and Pre-Funded Warrants” and “Underwriting”, insofar as they purport to describe the provisions of the laws and documents referred to therein, are accurate, complete and fair in all material respects;

(o) There are no legal or governmental proceedings pending to which the Company or, to the Company’s knowledge, any officer or director of the Company, is a party or of which any property of the Company or, to the Company’s knowledge, any officer or director of the Company, is the subject which, if determined adversely to the Company, would individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and, to the Company’s knowledge, no such proceedings are threatened or contemplated by governmental authorities or others;

(p) The Company is not and, after giving effect to the offering and sale of the Securities and the application of the proceeds thereof as described in the Pricing Disclosure Package and the Prospectus, will not be an “investment company”, as such term is defined in the Investment Company Act of 1940, as amended (the “Investment Company Act”);

(q) At the time of filing the Initial Registration Statement and any post-effective amendment thereto, at the earliest time thereafter that the Company or any offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) under the Act) of the Securities, and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined under Rule 405 under the Act;

(r) Ernst & Young LLP, who have certified certain financial statements of the Company, are independent public accountants as required by the Act and the rules and regulations of the Commission thereunder;

(s) The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) that (i) complies with the requirements of the Exchange Act, (ii) has been designed by the Company’s principal executive officer and principal financial officer, or under their supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles (“GAAP”) and (iii) is 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 generally accepted accounting principles 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, if any, included or incorporated by reference in the Registration Statement, Pricing Prospectus and Prospectus is accurate to the extent required. The Company’s internal control over financial reporting is effective and the Company is not aware of any material weaknesses in its internal control over financial reporting (it being understood that this subsection shall not require the Company to comply with Section 404 of the Sarbanes-Oxley Act of 2002, as amended, and the rules and regulations promulgated in connection therewith (“Sarbanes-Oxley Act”) as of an earlier date than it would otherwise be required to so comply under applicable law);

(t) Since the date of the latest audited financial statements included or incorporated by reference in the Pricing Disclosure Package and the Prospectus, there has been no change in the Company's internal control over financial reporting that has materially and adversely affected, or is reasonably likely to materially and adversely affect, the Company's internal control over financial reporting;

(u) The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) that comply with the requirements of the Exchange Act; such disclosure controls and procedures have been designed to ensure that material information relating to the Company is made known to the Company's principal executive officer and principal financial officer by others within those entities; and such disclosure controls and procedures are effective;

(v) This Agreement has been duly authorized, executed and delivered by the Company;

(w) Neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person associated with or acting on behalf of the Company has (i) made, offered, promised or authorized any unlawful contribution, gift, entertainment or other unlawful expense or taken any act in furtherance thereof; (ii) made, offered, promised or authorized any direct or indirect unlawful payment; or (iii) violated or is in violation of any provision of the U.S. 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 law (collectively, the "Anti-Corruption Laws"). The Company has instituted, and maintains, policies and procedures designed to promote and achieve continued compliance with the Anti-Corruption Laws;

(x) The operations of the Company are and have been conducted at all times in compliance with the requirements of applicable anti-money laundering laws, including, but not limited to, the Bank Secrecy Act of 1970, as amended by the USA PATRIOT ACT of 2001, and the rules and regulations promulgated thereunder, and the anti-money laundering laws of the various jurisdictions in which the Company conducts business (collectively, the "Money Laundering Laws") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened;

(y) Neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company is currently the subject or the target of any sanctions administered or enforced by the U.S. Government, including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury, or the U.S. Department of State and including, without limitation, the designation as a "specially designated national" or "blocked person," the European Union, His Majesty's Treasury, the United Nations Security Council, or other relevant sanctions authority (collectively, "Sanctions"), nor is the Company located, organized or resident in a country or territory that is the subject or target of Sanctions, and the Company will not directly or indirectly use the proceeds of the offering of the Securities hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity (i) to fund or facilitate any activities of or business with any person, or in any country or territory, that, at the time of such funding, is the subject or the target of Sanctions (a "Sanctioned Jurisdiction") or (ii) in any other manner that will result in a violation by any person (including any person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions; for the past ten years or, if shorter, since the Company's inception, the Company has not knowingly engaged in and is not now knowingly engaged in any dealings or transactions with or involving any individual or entity that was or is, as applicable, at the time of such dealing or transaction, the subject or target of Sanctions or with any Sanctioned Jurisdiction;

(z) The financial statements, including the notes thereto, included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, together with the related schedules and notes, present fairly in all material respects the financial position of the Company at the dates indicated and the statement of operations, stockholders' equity and cash flows of the Company for the periods specified; said financial statements have been prepared in conformity with GAAP applied on a consistent basis throughout the periods involved. The supporting schedules, if any, included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus present fairly in all material respects and in accordance with GAAP the information required to be stated therein. The selected financial data and the summary financial information included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus present fairly in all material respects the information shown therein and have been compiled on a basis consistent with that of the audited financial statements included therein. Except as included therein, no historical or pro forma financial statements or supporting schedules are required to be included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package or the Prospectus under the Act or the rules and regulations promulgated thereunder;

(aa) From the time of initial confidential submission of the registration statement relating to the Company's initial public offering with the Commission (or, if earlier, the first date on which a Section 5(d) Communication was made) through the date hereof, the Company has been and is an "emerging growth company" as defined in Section 2(a)(19) of the Act (an "Emerging Growth Company");

(bb) There are no persons with registration rights or other similar rights to have any securities registered under the Registration Statement or otherwise registered by the Company under the Act, except as have been validly waived or complied with in connection with the offering of the Securities;

(cc) No material labor disturbance by or dispute with current or former employees or officers of the Company exists or, to the Company's knowledge, is contemplated or threatened, and the Company is not aware of any existing or imminent labor disturbance by, or dispute with, the employees of any of the Company's principal suppliers, manufacturers or contractors. The Company is not a party to any collective bargaining agreement.

(dd) Except as set forth in the Pricing Disclosure Package and the Prospectus, the Company has insurance covering its properties, operations, personnel and business, including business interruption insurance, which insurance is in amounts and insures against such losses and risks as are reasonable and is ordinary and customary for comparable companies in the same or similar business; and the Company has (i) not received notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance nor (ii) no 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 at reasonable cost from similar insurers as may be reasonably necessary to continue its business;

(ee) Any studies, tests and preclinical studies and clinical trials conducted by the Company and, to the knowledge of the Company, any studies, tests and preclinical studies and clinical trials conducted on behalf of the Company or in which the Company has participated, were, and if still pending are, being conducted in accordance with all applicable laws, including the U.S. Federal Food, Drug and Cosmetic Act and rules and regulations thereunder, except where the failure to be so conducted would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; the Company is not aware of any studies, tests or trials, the results of which the Company believes reasonably and materially call into question the study, test, or trial results described or referred to in the Pricing Disclosure Package and the Prospectus when viewed in the context in which such results are described and the clinical state of development; and, except to the extent disclosed in the Pricing Disclosure Package or the Prospectus, the Company has not received any written notices or correspondence from the FDA or any other comparable federal, state, local or foreign governmental or regulatory authority requiring the termination or suspension of any studies, tests or preclinical studies or clinical trials conducted by or on behalf of the Company;

(ff) Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, the Company is, and at all times since January 1, 2021 has been, in compliance with all Health Care Laws (defined herein), including, but not limited to, the rules and regulations of the U.S. Department of Health and Human Services Office of Inspector General, the Centers for Medicare & Medicaid Services, the HHS Office for Civil Rights, the U.S. Department of Justice and any other governmental agency or body having jurisdiction over the Company or any of its properties, and has not, since January 1, 2021, engaged in any activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other local, state or federal healthcare program. For purposes of this Agreement, “Health Care Laws” shall mean the U.S. Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.); the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Act (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. §§ 286, 287, and the health care fraud criminal provisions under the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. §§ 1320d et seq.) (“HIPAA”), the exclusions law (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. §§ 17921 et seq.), Medicare (Title XVIII of the Social Security Act), and Medicaid (Title XIX of the Social Security Act), each as amended, and the regulations promulgated thereunder. The Company and each of its directors, officers, and employees, and to the Company’s knowledge, its agents, affiliates and representatives, are not a party to or has any ongoing reporting obligations pursuant to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, plan of correction or similar agreement imposed by any governmental authority. Since January 1, 2021, the Company and its directors, officers, and employees, and to the Company’s knowledge, its agents, affiliates and representatives, have not received any written notification, correspondence or any other written communication, and the Company has not received any oral communication, from any governmental authority of potential or actual non-compliance by, or liability of, the Company under any Health Care Laws;

(gg) The Company possesses, and is in compliance with the terms of, all applications, certificates, approvals, clearances, registrations, exemptions, franchises, licenses, permits, consents and other authorizations necessary to conduct its business (collectively, "Licenses"), issued by the appropriate federal, state, local or foreign governmental or regulatory authorities including, without limitation, from the FDA, state boards of pharmacy and departments of health, and equivalent foreign regulatory authorities (collectively, the "Regulatory Agencies"), except where the failure to possess or comply with the same would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. All such Licenses are in full force and effect and the Company is not in material violation of any term or conditions of any such License. The Company has fulfilled and performed all of its material obligations with respect to such Licenses and, to the Company's knowledge, no event has occurred which allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other impairment of the rights of the holder of any such License. The Company has not received any written, and to the Company's knowledge, oral, notice of proceedings relating to the revocation or material adverse modification of any such Licenses and, to the Company's knowledge, no Regulatory Agency has taken any action to materially limit, suspend or revoke any such License possessed by the Company;

(hh) Since January 1, 2021, neither the Company, nor, to the Company's knowledge, any of its officers, employees, directors, or agents, have been excluded, suspended or debarred from participation in any U.S. federal health care program or, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion, or convicted of any crime or engaged in any conduct that would reasonably be expected to result in any suspension, exclusion, or debarment;

(ii) Except as described in the Pricing Disclosure Package, the Company owns or has valid and enforceable licenses or other rights to use all patents and patent applications, copyrights, trademarks, trademark registrations, service marks, service mark registrations, trade names, service names and know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, inventions, systems or procedures) including the right to sue for past, present and future infringement, misappropriation or dilution of any of the foregoing, to the extent the foregoing are necessary for the conduct of the business of the Company in the manner described in the Pricing Disclosure Package and the Prospectus (collectively, the "Company Intellectual Property"). Other than as disclosed in the Pricing Disclosure Package, there are no rights of third parties to any of the material patents, trademarks and copyrights within the Company Intellectual Property disclosed in the Pricing Disclosure Package as being owned by the Company, and such intellectual property is owned by the Company free and clear of all material liens, security interests, or encumbrances. To the knowledge of the Company, the material patents, trademarks and copyrights held or licensed by the Company included within the Company's Intellectual Property are valid, enforceable and subsisting. Other than as disclosed in the Pricing Disclosure Package and the Prospectus, (i) the Company is not obligated to pay a material royalty, grant a material license, or provide other material consideration to any third party in connection with the Company Intellectual Property, (ii) no action, suit, claim or other proceeding is pending or, to the knowledge of the Company, is threatened, alleging that the conduct of the business of the Company in the manner described in the Pricing Disclosure Package is infringing, misappropriating, diluting or otherwise violating any intellectual property rights of others, or alleging that such conduct of the Company would, upon the commercialization of any product or service proposed in the Pricing Disclosure Package and the Prospectus to be conducted, infringe, misappropriate, dilute, or otherwise violate, any rights of others with respect to any of the Company's product candidates, processes or intellectual property, and the Company is unaware of any facts which could form a reasonable basis for any such action, suit, proceeding or claim, (iii) no action, suit, claim or other proceeding is pending or, to the knowledge of the Company, is threatened, challenging the validity, enforceability, scope, registration, ownership or use of any of the Company's Intellectual Property, and the Company is

not aware of any facts which could form a reasonable basis for any such action, suit, proceeding or claim, (iv) no action, suit, claim or other proceeding is pending or, to the knowledge of the Company, is threatened, challenging the Company's rights in or to any Company Intellectual Property and the Company is unaware of any facts which could form a reasonable basis for any such action, suit, proceeding or claim, (v) to the knowledge of the Company, the development, manufacture, sale, and any currently proposed use of any of the products, proposed products or processes of the Company referred to in the Pricing Disclosure Package and the Prospectus, in the current or proposed conduct of the business of the Company do not currently, and will not upon commercialization, to the knowledge of the Company, infringe any right or valid patent claim of any third party, (vi) to the knowledge of the Company, no employee, consultant or independent contractor of the Company is in violation in any material respect of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement nondisclosure agreement or any restrictive covenant to or with a former employer or independent contractor where the basis of such violation relates to the ownership by the Company of any Company Intellectual Property, (vii) the Company has taken reasonable measures to protect its material confidential information and material trade secrets and to maintain and safeguard the Company's material Intellectual Property, including the execution of appropriate nondisclosure, confidentiality and invention assignment agreements, and (viii) to the knowledge of the Company, the Company has complied with the material terms of each agreement pursuant to which Company Intellectual Property has been licensed to the Company, and all such agreements are in full force and effect, except in each of (i)-(viii) such as would not, if determined adversely to the Company, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect;

(jj) (i) The Company's information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "IT Systems") are adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company as currently conducted, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants; (ii) the Company has implemented and maintained commercially reasonable controls, policies, procedures, and safeguards to maintain and protect its material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data (including all personal, personally identifiable, sensitive, confidential or regulated data ("Personal Data")) used in connection with its business, and to the Company's knowledge, there have been no material breaches, violations, outages or unauthorized uses of or accesses to same, except for those that have been remedied without material cost or liability or the duty to notify any other person, nor any incidents under internal review or investigations relating to the same; and (iii) the Company is presently in material compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Personal Data and to the protection of such IT Systems and Personal Data from unauthorized use, access, misappropriation or modification;

(kk) Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, all patents and patent applications within the Company Intellectual Property disclosed in the Pricing Disclosure Package and the Prospectus as owned by or licensed to the Company have, to the knowledge of the Company, been duly and properly filed and maintained; to the knowledge of the Company, there are no material defects in such patents; to the knowledge of the Company, the parties prosecuting such applications have materially complied with their duty of candor and disclosure to the U.S. Patent and Trademark Office

("USPTO") in connection with such applications; and the Company is not aware of any facts required to be disclosed to the USPTO that were not disclosed to the USPTO and which would preclude the grant of a patent in connection with any such application or could form the basis of a finding of invalidity with respect to any patents that have issued with respect to such applications;

(ll) Any statistical, industry-related and market-related data included in the Pricing Disclosure Package and the Prospectus are based on or derived from sources that the Company believes, after reasonable inquiry, to be reliable and accurate in all material respects and, to the extent required by such sources, the Company has obtained the written consent to the use of such data from such sources;

(mm) There are no off-balance sheet arrangements (as defined in Item 303(a)(4)(ii) of Regulation S-K of the Act) that may have a material current or future effect on the Company's financial condition, changes in financial condition, results of operations, liquidity, capital expenditures or capital resources;

(nn) The Company has not sold or issued any securities during the six-month period preceding the date of the Prospectus, including any sales pursuant to Rule 144A or Regulation D of the Act, other than (i) shares issued pursuant to employee benefit plans disclosed in the Pricing Disclosure Package and the Prospectus, stock option plans or other employee compensation plans or pursuant to outstanding options, rights or warrants, or (ii) as disclosed in the Pricing Disclosure Package and the Prospectus;

(oo) All United States federal income tax returns of the Company required by law to be filed have been filed and all taxes shown as due on such returns or that otherwise have been assessed, which are due and payable, have been paid, except assessments against which appeals have been or will be promptly taken and as to which adequate reserves have been provided. The Company has filed all other tax returns that are required to have been filed by them pursuant to applicable foreign, state, local or other law except insofar as the failure to file such returns would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, and has paid all material taxes due pursuant to such returns or pursuant to any assessment received by the Company, except for such taxes, if any, as are being contested in good faith and as to which adequate reserves have been provided. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined, except to the extent of any inadequacy that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. No tax deficiency has been determined adversely to the Company which has had (nor does the Company have any written notice or knowledge of any tax deficiency which could reasonably be expected to be determined adversely to the Company and which would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect);

(pp) The Company has not taken and will not take, directly or indirectly, without giving effect to activities by the Underwriters, any action that is designed to or that has constituted or might reasonably be expected to cause or result in stabilization or manipulation of the price of the Securities;

(qq) The Company is not a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against the Company or any Underwriter for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Securities;

(rr) No relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company, on the other, that is required by the Act to be described in the Pricing Disclosure Package and the Prospectus and that is not so described in such documents and in the Pricing Disclosure Package and the Prospectus;

(ss) Solely to the extent that the Sarbanes-Oxley Act has been applicable to the Company, the Company has taken all necessary actions to ensure that it is in compliance with all provisions of the Sarbanes-Oxley Act with which the Company is required to comply as of the Applicable Time, including Section 402 related to loans and Sections 302 and 906 related to certifications, and the Company currently plans to take reasonable steps to ensure that it will be in compliance with other provisions of the Sarbanes-Oxley Act not currently in effect, upon the effectiveness of such provisions, or which will become applicable to the Company at all times after the effectiveness of the Registration Statement;

(tt) The Company does not have any debt securities or preferred stock that are rated by any "nationally recognized statistical rating agency" (as defined in Section 3(a)(62) of the Exchange Act);

(uu) The Shares and Warrant Shares are registered pursuant to Section 12(b) or 12(g) of the Exchange Act and are listed on The Nasdaq Global Select Market ("Nasdaq"), and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Stock under the Exchange Act or delisting the Stock from Nasdaq, nor has the Company received any notification that the Commission or Nasdaq is contemplating terminating such registration or listing. To the Company's knowledge, it is in compliance with all applicable listing requirements of Nasdaq.

2. Upon the terms herein set forth, the Company agrees to issue and sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at a purchase price per Share of \$10.81000 and a purchase price per Pre-Funded Warrant of \$10.80906, the number of Shares and Pre-Funded Warrants set forth opposite the name of such Underwriter in Schedule I hereto.

3. Upon the authorization by you of the release of the Securities, the several Underwriters propose to offer the Securities for sale upon the terms and conditions set forth in the Pricing Disclosure Package and the Prospectus.

4.

(a) The Shares to be purchased by each Underwriter hereunder, in book-entry form, and in such authorized denominations and registered in such names as the Representatives may request upon at least forty-eight hours' prior notice to the Company shall be delivered by or on behalf of the Company to the Representatives, through the facilities of the Depository Trust Company ("DTC"), for the account of such Underwriter, against payment by or on behalf of such Underwriter of the purchase price therefor by wire transfer of Federal (same-day) funds to the account specified by the Company to the Representatives at least forty-eight hours in advance. The time and date of such delivery and payment shall be, with respect to the Shares, 9:30 a.m.,

New York City time, on August 20, 2024 or such other time and date as the Representatives and the Company may agree upon in writing. Such time and date for delivery of the Shares is herein called the “Time of Delivery”. The Company shall deliver, or cause to be delivered, the Pre-Funded Warrants at the Time of Delivery, against the irrevocable release of a wire transfer of immediately available funds for the amount of the purchase price therefor.

(b) Notwithstanding the foregoing, the Company and the Representatives shall instruct purchasers of the Pre-Funded Warrants in the offering to make payment for the Pre-Funded Warrants on the Time of Delivery to the Company by wire transfer in immediately available funds to the account specified by the Company at a purchase price of \$11.499 per Pre-Funded Warrant, in lieu of payment by the Underwriters for such Pre-Funded Warrants, and the Company shall deliver, or cause to be delivered, the Pre-Funded Warrants to such purchasers at the Time of Delivery, in definitive form and registered in such names and in such denominations as the Representatives shall request in writing before the Time of Delivery, against such payment, in lieu of the Company’s obligation to deliver such Pre-Funded Warrants to the Underwriters; provided, that, the Representatives shall withhold \$0.68994 per Pre-Funded Warrant with respect to such Pre-Funded Warrants as an offset against the payment owed by the Representatives to the Company with respect to the Securities hereunder. In the event that the purchasers of the Pre-Funded Warrants fail to make payment to the Company for all or part of the Pre-Funded Warrants at the Time of Delivery, the Representatives may elect, by written notice to the Company, to purchase additional Shares in lieu of all or a portion of such Pre-Funded Warrants, to be delivered to the Underwriters under this Agreement at the price per Share listed in Section 2 hereof at the applicable Time of Delivery in the manner contemplated herein in connection with the issuance and purchase of Shares. The Pre-Funded Warrants will be made available for inspection by the Representatives on the business day prior to the Time of Delivery.

(c) The documents to be delivered at the Time of Delivery by or on behalf of the parties hereto pursuant to Section 8 hereof, including the cross receipt for the Shares and any additional documents requested by the Underwriters pursuant to Section 8(j) hereof, will be delivered at the offices of Cooley LLP, 3 Embarcadero Center, 20th Floor, San Francisco, California 94111 (the “Closing Location”), and the Securities will be delivered, all at the Time of Delivery. A meeting will be held at the Closing Location at 3:00 p.m., New York City time, on the New York Business Day next preceding such Time of Delivery, at which meeting the final drafts of the documents to be delivered pursuant to the preceding sentence will be available for review by the parties hereto. For the purposes of this Section 4, “New York Business Day” shall mean each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York City are generally authorized or obligated by law or executive order to close.

5. (A) The Company agrees with each of the Underwriters:

(a) To prepare the Prospectus in a form approved by you and to file such Prospectus pursuant to Rule 424(b) under the Act not later than the Commission’s close of business on the second business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by Rule 430A(a)(3) under the Act; to make no further amendment or any supplement to the Registration Statement, the Basic Prospectus or the Prospectus prior to the Time of Delivery which shall be disapproved by you promptly after reasonable notice thereof; to advise you, promptly after it receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any amendment or supplement to the Prospectus has been filed and to furnish you with copies thereof; to file promptly all material required to be filed by the Company with the Commission pursuant to

Rule 433(d) under the Act; within the time required by such Rule; to file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the Prospectus and for so long as the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Act) is required in connection with the offering or sale of the Securities; to advise you, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or other prospectus in respect of the Securities, of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement or the Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or other prospectus or suspending any such qualification, to promptly use its best efforts to obtain the withdrawal of such order;

(b) Promptly from time to time to take such action as you may reasonably request to qualify the Securities for offering and sale under the securities laws of such jurisdictions as you may request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Securities, provided that in connection therewith the Company shall not be required to qualify as a foreign corporation (where not otherwise required) or to file a general consent to service of process in any jurisdiction (where not otherwise required);

(c) Prior to 10:00 a.m., New York City time, on the New York Business Day next succeeding the date of this Agreement (or such other time as may be agreed to by the Representatives and the Company) and from time to time, to furnish the Underwriters with written and electronic copies of the Prospectus in New York City in such quantities as you may reasonably request, and, if the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Act) is required at any time prior to the expiration of nine months after the time of issue of the Prospectus in connection with the offering or sale of the Securities and if at such time any event shall have occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Act) is delivered, not misleading, or, if for any other reason it shall be necessary during such same period to amend or supplement the Prospectus or to file under the Exchange Act any document incorporated by reference in the Prospectus in order to comply with the Act or the Exchange Act, to notify you and upon your request to file such document and to prepare and furnish without charge to each Underwriter and to any dealer in securities as many written and electronic copies as you may from time to time reasonably request of an amended Prospectus or a supplement to the Prospectus which will correct such statement or omission or effect such compliance; and in case any Underwriter is required to deliver a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Act) in connection with sales of any of the Securities at any time nine months or more after the time of issue of the Prospectus, upon your request but at the expense of such Underwriter, to prepare and deliver to such Underwriter as many written and electronic copies as you may request of an amended or supplemented Prospectus complying with Section 10(a)(3) of the Act;

(d) To make generally available to its securityholders as soon as practicable (which may be satisfied by filing with the Commission's Electronic Data Gathering Analysis and Retrieval System ("EDGAR")), but in any event not later than sixteen months after the effective date of the Registration Statement (as defined in Rule 158(c) under the Act), an earnings statement of the Company (which need not be audited) complying with Section 11(a) of the Act and the rules and regulations of the Commission thereunder (including, at the option of the Company, Rule 158);

(e) During the period beginning from the date hereof and continuing to and including the date 60 days after the date of the Prospectus (the "Lock-Up Period"), not to (1) offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, or file with or confidentially submit to the Commission a registration statement under the Act relating to, any securities of the Company that are substantially similar to the Shares and the Pre-Funded Warrants, including but not limited to any options or warrants to purchase shares of Stock or any securities that are convertible into or exchangeable for, or that represent the right to receive, Stock or any such substantially similar securities, (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Stock or any such other securities, whether any such transaction described in clauses (1) or (2) above is to be settled by delivery of Stock or such other securities, in cash or otherwise or (3) publicly disclose the intention to do any of the foregoing, in each case, without the prior written consent of Evercore Group L.L.C. and Stifel, Nicolaus & Company, Incorporated; provided, however, that the foregoing restrictions shall not apply to: (A) the Shares and the Pre-Funded Warrants to be sold hereunder, (B) any shares of Stock or any securities or other awards convertible into, exercisable for, or that represent the right to receive, shares of Stock pursuant to any stock option plan, incentive plan or stock purchase plan of the Company (collectively, "Company Stock Plans") or otherwise in equity compensation arrangements described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (C) any shares of Stock issued upon the conversion, exercise or exchange of convertible, exercisable or exchangeable securities outstanding on the date of this Agreement and described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (D) the filing by the Company of any registration statement on Form S-8 or a successor form thereto relating to any Company Stock Plan described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (E) any shares of Stock or any securities convertible into or exchangeable for, or that represent the right to receive, shares of Stock issued in connection with any bona fide licensing, commercialization, joint venture, technology transfer or development collaboration agreement with an unaffiliated third party, provided that in the case of clause (E), the aggregate number of shares that the Company may sell or issue or agree to sell or issue pursuant to clause (E) shall not exceed 5.0% of the total number of shares of Stock issued and outstanding immediately following the completion of the transactions contemplated by this Agreement, and provided, further, that the Company shall cause each recipient of such securities pursuant to clauses (B), (C) and (E) during the Lock-Up Period to execute and deliver to the Representatives, on or prior to the issuance of such securities, a lock-up letter in substantially the form attached as Annex I hereto for the remainder of the Lock-Up Period (as defined therein) and enter stop transfer instructions with the Company's transfer agent and registrar on such securities, which the Company agrees it will not waive or amend without the prior written consent of Evercore Group L.L.C. and Stifel, Nicolaus & Company, Incorporated, and (F) any shares of Stock sold in "at-the-market" offerings pursuant to that certain Open Market Sale Agreement, by and between the Company and Jefferies LLC, dated November 10, 2020, provided that no such sales shall occur until the 30th calendar day after the date of the Prospectus.

(f) To use the net proceeds received by it from the sale of the Securities pursuant to this Agreement in the manner specified in the Pricing Disclosure Package and the Prospectus under the caption "Use of Proceeds."

(g) To use its best efforts to list, subject to notice of issuance, the Shares and the Warrant Shares on Nasdaq;

(h) To file with the Commission such information on Form 10-Q or Form 10-K as may be required by Rule 463 under the Act;

(i) If the Company elects to rely upon Rule 462(b), the Company shall file a Rule 462(b) Registration Statement with the Commission in compliance with Rule 462(b) by 10:00 p.m., Washington, D.C. time, on the date of this Agreement, and the Company shall at the time of filing either pay to the Commission the filing fee for the Rule 462(b) Registration Statement or give irrevocable instructions for the payment of such fee pursuant to Rule 111(b) under the Act;

(j) Upon request of any Underwriter, to furnish, or cause to be furnished, to such Underwriter an electronic version of the Company's trademarks, servicemarks and corporate logo for use on the website, if any, operated by such Underwriter for the purpose of facilitating the on-line offering of the Securities (the "License"); provided, however, that the License shall be used solely for the purpose described above, is granted without any fee and may not be assigned or transferred;

(k) To promptly notify you if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) completion of the distribution of the Securities within the meaning of the Act and (ii) the Time of Delivery; and

(l) The Company shall, at all times while any Pre-Funded Warrants are outstanding, reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of such Pre-Funded Warrants, the number of Warrant Shares that are initially issuable and deliverable upon the exercise of the then-outstanding Pre-Funded Warrants.

6. (a) The Company represents and agrees that, without the prior consent of the Representatives, it has not made and will not make any offer relating to the Securities that would constitute a "free writing prospectus" as defined in Rule 405 under the Act; and each Underwriter represents and agrees that, without the prior consent of the Company and the Representatives; it has not made and will not make any offer relating to the Securities that would constitute a free writing prospectus required to be filed with the Commission; any such free writing prospectus the use of which has been consented to by the Company and the Representatives is listed on Schedule II(a) hereto;

(b) The Company has complied and will comply with the requirements of Rule 433 under the Act applicable to any Issuer Free Writing Prospectus, including timely filing with the Commission or retention where required and legending; and the Company represents that it has satisfied and agrees that it will satisfy the conditions under Rule 433 under the Act to avoid a requirement to file with the Commission any electronic road show;

(c) The Company agrees that if at any time following issuance of an Issuer Free Writing Prospectus or any Section 5(d) Writing prepared or authorized by it any event occurred or occurs as a result of which such Issuer Free Writing Prospectus or Section 5(d) Writing prepared by or authorized by it would conflict with the information in the Registration Statement, the Pricing Disclosure Package or the Prospectus or would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances then prevailing, not misleading, the Company will give prompt notice thereof to the Representatives and, if requested by the Representatives, will prepare and furnish without charge to each Underwriter an Issuer Free Writing Prospectus, Section 5(d) Writing or other document which will correct such conflict, statement or omission; provided, however, that this representation and warranty shall not apply to any statements or omissions in an Issuer Free Writing Prospectus or Section 5(d) Writing prepared or authorized by it made in reliance upon and in conformity with the Underwriter Information;

(d) The Company represents and agrees that (i) it has not engaged in, or authorized any other person to engage in, any Section 5(d) Communications, other than Section 5(d) Communications with the prior consent of the Representatives with entities that are qualified institutional buyers as defined in Rule 144A under the Act or institutions that are accredited investors as defined in Rule 501(a) under the Act; and (ii) it has not distributed, or authorized any other person to distribute, any Section 5(d) Writings, other than those distributed with the prior consent of the Representatives that are listed on Schedule II(d) hereto; and the Company reconfirms that the Underwriters have been authorized to act on its behalf in engaging in Section 5(d) Communications; and

(e) Each Underwriter represents and agrees that any Section 5(d) Communications undertaken by it were with entities that are qualified institutional buyers as defined in Rule 144A under the Act or institutions that are accredited investors as defined in Rule 501(a) under the Act;

7. The Company covenants and agrees with the several Underwriters that the Company will pay or cause to be paid the following: (i) the fees, disbursements and expenses of the Company's counsel and accountants in connection with the registration of the Securities under the Act and all other expenses in connection with the preparation, printing, reproduction and filing of the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, any Section 5(d) Writing, any Issuer Free Writing Prospectus and the Prospectus and amendments and supplements thereto and the mailing and delivering of copies thereof to the Underwriters and dealers; (ii) the cost of printing or producing any Agreement among Underwriters, this Agreement, the Blue Sky Memorandum, closing documents (including any compilations thereof) and any other documents in connection with the offering, purchase, sale and delivery of the Securities; (iii) all expenses in connection with the qualification of the Securities for offering and sale under state securities laws as provided in Section 5(b) hereof, including the fees and disbursements of counsel for the Underwriters in connection with such qualification and in connection with the Blue Sky survey; (iv) all fees and expenses in connection with listing the Shares and the Warrant Shares on Nasdaq; (v) the filing fees incident to, and the fees and disbursements of counsel for the Underwriters in connection with, any required review by FINRA of the terms of the sale of the Securities; (vi) the cost of preparing stock certificates and the cost of reproduction and distributing each of the Pre-Funded Warrants; (vii) the cost and charges of any transfer agent or registrar; and (viii) all other costs and expenses incident to the performance of its obligations hereunder which are not otherwise specifically provided for in this Section; provided, however, that the amounts payable by the Company pursuant to clauses (iii) and (v) for the fees and disbursements of counsel to the Underwriters described in clauses (iii) and (v) shall not exceed \$25,000 in the aggregate. It is understood, however, that, except as provided in this Section, and Sections 9, 10 and 13 hereof, the Underwriters will pay all of their own costs and expenses, including the fees of

their counsel, stock transfer taxes on resale of any of the Securities by them, and any advertising expenses connected with any offers they may make and all travel and lodging expenses of the Underwriters and their representatives and counsel; provided, however, that, the cost of any aircraft chartered in connection with any roadshow shall be paid 50% by the Company and 50% by the Underwriters.

8. The obligations of the Underwriters hereunder, as to the Securities to be delivered at the Time of Delivery, shall be subject, in their discretion, to the condition that all representations and warranties and other statements of the Company herein are, at and as of the Applicable Time and the Time of Delivery, true and correct, the condition that the Company shall have performed all of its obligations hereunder theretofore to be performed, and the following additional conditions:

(a) The Prospectus shall have been filed with the Commission pursuant to Rule 424(b) under the Act within the applicable time period prescribed for such filing by the rules and regulations under the Act and in accordance with Section 5(A)(a) hereof; all material required to be filed by the Company pursuant to Rule 433(d) under the Act shall have been filed with the Commission within the applicable time period prescribed for such filing by Rule 433; if the Company has elected to rely upon Rule 462(b) under the Act, the Rule 462(b) Registration Statement shall have become effective by 10:00 p.m., Washington, D.C. time, on the date of this Agreement; no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; no stop order suspending or preventing the use of the Pricing Disclosure Package, Prospectus or any Issuer Free Writing Prospectus shall have been initiated or threatened by the Commission; and all requests for additional information on the part of the Commission shall have been complied with to your reasonable satisfaction;

(b) Cooley LLP, counsel for the Underwriters, shall have furnished to you such written opinion or opinions, dated the Time of Delivery, in form and substance satisfactory to the Representatives, with respect to such matters as the Representatives may reasonably request, and such counsel shall have received such papers and information as they may reasonably request to enable them to pass upon such matters;

(c) Latham & Watkins LLP, counsel for the Company, shall have furnished to the Representatives their written opinion and negative assurance letter, dated the Time of Delivery, in form and substance satisfactory to the Representatives;

(d) Scully, Scott, Murphy & Presser, P.C., intellectual property counsel for the Company, shall have furnished to the Representatives their written opinion with respect to certain intellectual property matters, dated the Time of Delivery, in form and substance satisfactory to the Representatives;

(e) On the date of the Prospectus at a time prior to the execution of this Agreement, at 9:30 a.m., New York City time, on the effective date of any post-effective amendment to the Registration Statement filed subsequent to the date of this Agreement and also at the Time of Delivery, Ernst & Young LLP shall have furnished to the Representatives a letter or letters, dated the respective dates of delivery thereof, in form and substance satisfactory to the Representatives;

(f) (i) The Company shall not have sustained since the date of the latest audited financial statements included or incorporated by reference in the Pricing Disclosure Package any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Pricing Disclosure Package, and (ii) since the respective dates as of which information is given in the Pricing Disclosure Package there shall not have been any change in the capital stock (other than as a result of the exercise of stock options or the award of stock options or restricted stock in the ordinary course of business pursuant to the Company's equity plans that are described in the Pricing Disclosure Package) or long-term debt of the Company or any change or effect, or any development involving a prospective change or effect, in or affecting (x) the business, properties, general affairs, management, financial position, stockholders' equity or results of operations of the Company, except as set forth or contemplated in the Pricing Disclosure Package, or (y) the ability of the Company to perform its obligations under this Agreement, including the issuance and sale of the Securities, or to consummate the transactions contemplated in the Pricing Disclosure Package and the Prospectus, the effect of which, in any such case described in clause (i) or (ii), is in your judgment so material and adverse as to make it impracticable or inadvisable to proceed with the offering or the delivery of the Securities being delivered at such Time of Delivery on the terms and in the manner contemplated in the Pricing Disclosure Package and the Prospectus;

(g) On or after the Applicable Time there shall not have occurred any of the following: (i) a suspension or material limitation in trading in securities generally on the Nasdaq; (ii) a suspension or material limitation in trading in the Company's securities on Nasdaq; (iii) a general moratorium on commercial banking activities declared by either Federal, California State or New York State authorities or a material disruption in commercial banking or securities settlement or clearance services in the United States; (iv) the outbreak or escalation of hostilities involving the United States or the declaration by the United States of a national emergency or war; or (v) the occurrence of any other calamity or crisis or any change in financial, political or economic conditions in the United States or elsewhere, if the effect of any such event specified in clause (iv) or (v) in your judgment makes it impracticable or inadvisable to proceed with the offering or the delivery of the Securities being delivered at such Time of Delivery on the terms and in the manner contemplated in the Pricing Disclosure Package and the Prospectus;

(h) The Shares to be sold at the Time of Delivery and the Warrant Shares shall have been duly listed for quotation on Nasdaq;

(i) The Company shall have obtained and delivered to the Underwriters executed copies of an agreement from each director and officer, substantially to the effect set forth in Annex I hereof in form and substance satisfactory to the Representatives;

(j) The Company shall have complied with the provisions of Section 5(A)(c) hereof with respect to the furnishing of prospectuses on the New York Business Day next succeeding the date of this Agreement (or such other time as may be agreed to by the Representatives and the Company); and

(k) The Company shall have furnished or caused to be furnished to you at the Time of Delivery certificates of officers of the Company satisfactory to you as to the accuracy of the representations and warranties of the Company herein at and as of such Time of Delivery, as to the performance by the Company of all of its obligations hereunder to be performed at or prior to such Time of Delivery, as to the matters set forth in subsections (a) and (f) of this Section and such other matters as you may reasonably request.

9. (a) The Company will indemnify and hold harmless each Underwriter against any losses, claims, damages or liabilities, joint or several, to which such Underwriter may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or any amendment or supplement thereto, any Issuer Free Writing Prospectus, any “roadshow” as defined in Rule 433(h) under the Act (a “roadshow”), or any “issuer information” filed or required to be filed pursuant to Rule 433(d) under the Act, or any Section 5(d) Writing, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse each Underwriter for any legal or other expenses reasonably incurred by such Underwriter in connection with investigating or defending any such action or claim as such expenses are incurred; *provided, however*, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, or any Section 5(d) Writing, in reliance upon and in conformity with the Underwriter Information.

(b) Each Underwriter, severally and not jointly, will indemnify and hold harmless the Company against any losses, claims, damages or liabilities to which the Company may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, or any roadshow or any Section 5(d) Writing, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, or any roadshow or any Section 5(d) Writing, in reliance upon and in conformity with the Underwriter Information; and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending any such action or claim as such expenses are incurred. As used in this Agreement with respect to an Underwriter and an applicable document, “Underwriter Information” shall mean the written information furnished to the Company by such Underwriter through the Representatives expressly for use therein; it being understood and agreed upon that the only such information furnished by any Underwriter consists of the following information in the Prospectus furnished on behalf of each Underwriter: the concession figures appearing in the fifth paragraph under the caption “Underwriting”, and the information contained in thirteen through fifteen paragraphs under the caption “Underwriting”.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) of this Section 9 of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; provided that the failure to notify the indemnifying party shall not relieve it from any liability that it may have under the preceding paragraphs of this Section 9 except to the extent that it has been materially prejudiced (through

the forfeiture of substantive rights or defenses) by such failure; and provided further that the failure to notify the indemnifying party shall not relieve it from any liability that it may have to an indemnified party otherwise than under the preceding paragraphs of this Section 9. In case any such action shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal expenses of other counsel or any other expenses, in each case subsequently incurred by such indemnified party, in connection with the defense thereof other than reasonable costs of investigation. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 9 is unavailable to or insufficient to hold harmless an indemnified party under subsection (a) or (b) above in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Securities. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Underwriters on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriters on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this subsection (d) were determined by *pro rata* allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection (d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or

defending any such action or claim. Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Securities underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this subsection (d) to contribute are several in proportion to their respective underwriting obligations and not joint.

(e) The obligations of the Company under this Section 9 shall be in addition to any liability which the Company may otherwise have and shall extend, upon the same terms and conditions, to each employee, officer and director of each Underwriter and each person, if any, who controls any Underwriter within the meaning of the Act and each broker-dealer or other affiliate of any Underwriter; and the obligations of the Underwriters under this Section 9 shall be in addition to any liability which the respective Underwriters may otherwise have and shall extend, upon the same terms and conditions, to each officer and director of the Company and to each person, if any, who controls the Company within the meaning of the Act.

10. (a) If any Underwriter shall default in its obligation to purchase the Securities which it has agreed to purchase hereunder at a Time of Delivery, you may in your discretion arrange for you or another party or other parties to purchase such Securities on the terms contained herein. If within thirty-six hours after such default by any Underwriter you do not arrange for the purchase of such Securities, then the Company shall be entitled to a further period of thirty-six hours within which to procure another party or other parties satisfactory to you to purchase such Securities on such terms. In the event that, within the respective prescribed periods, you notify the Company that you have so arranged for the purchase of such Securities, or the Company notifies you that it has so arranged for the purchase of such Securities, you or the Company shall have the right to postpone such Time of Delivery for a period of not more than seven days, in order to effect whatever changes may thereby be made necessary in the Registration Statement or the Prospectus, or in any other documents or arrangements, and the Company agrees to file promptly any amendments or supplements to the Registration Statement or the Prospectus which in your opinion may thereby be made necessary. The term "Underwriter" as used in this Agreement shall include any person substituted under this Section 10 with like effect as if such person had originally been a party to this Agreement with respect to such Securities.

(b) If, after giving effect to any arrangements for the purchase of the Securities of a defaulting Underwriter or Underwriters by you and the Company as provided in subsection (a) above, the aggregate number of such Securities which remains unpurchased does not exceed one-eleventh of the aggregate number of all the Securities to be purchased at such Time of Delivery, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of Securities which such Underwriter agreed to purchase hereunder at such Time of Delivery and, in addition, to require each non-defaulting Underwriter to purchase its pro rata share (based on the number of Securities which such Underwriter agreed to purchase hereunder) of the Securities of such defaulting Underwriter or Underwriters for which such arrangements have not been made; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

(c) If, after giving effect to any arrangements for the purchase of the Securities of a defaulting Underwriter or Underwriters by you and the Company as provided in subsection (a) above, the aggregate number of such Securities which remains unpurchased exceeds one-eleventh of the aggregate number of all the Securities to be purchased at the Time of Delivery, or if the Company shall not exercise the right described in subsection (b) above to require non-defaulting Underwriters to purchase Securities of a defaulting Underwriter or Underwriters, then this Agreement shall thereupon terminate, without liability on the part of any non-defaulting Underwriter, the Company, except for the expenses to be borne by the Company and the Underwriters as provided in Section 7 hereof and the indemnity and contribution agreements in Sections 9 and 10 hereof; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

11. The respective indemnities, agreements, representations, warranties and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of any Underwriter or any controlling person of any Underwriter, or the Company, or any officer or director or controlling person of the Company, and shall survive delivery of and payment for the Securities.

12. If this Agreement shall be terminated pursuant to Section 10 hereof, the Company shall not then be under any liability to any Underwriter except as provided in Sections 7 and 9 hereof; but, if for any other reason, any Securities are not delivered by or on behalf of the Company as provided herein, the Company will reimburse the Underwriters through you for all out-of-pocket expenses approved in writing by you, including fees and disbursements of counsel, reasonably incurred by the Underwriters in making preparations for the purchase, sale and delivery of the Securities not so delivered, but the Company shall then be under no further liability to any Underwriter except as provided in Sections 7 and 9 hereof.

13. In all dealings hereunder, you shall act on behalf of each of the Underwriters, and the parties hereto shall be entitled to act and rely upon any statement, request, notice or agreement on behalf of any Underwriter made or given by you jointly or by the Representatives on behalf of the Underwriters.

All statements, requests, notices and agreements hereunder shall be in writing, and (A) if to the Underwriters shall be delivered or sent by mail or e-mail transmission to you as the representatives (i) (i) in care of Evercore Group L.L.C., 55 East 52nd Street, New York, NY 10055, Attention: ECM General Counsel (fax: (212) 857-3101); (ii) in care of Stifel, Nicolaus & Company, Incorporated, 787 Seventh Avenue, 11th Floor, New York, NY 10019, Attention: Equity Capital Markets; and (iii) in care of Guggenheim Securities, LLC, 330 Madison Avenue, New York, NY 10017, Fax (212) 658-9689, Attention: Head of Equity Capital Markets; (B) if to the Company shall be delivered or sent by mail to the address of the Company set forth on the cover of the Registration Statement, Attention: Chief Executive Officer; provided, however, that any notice to an Underwriter pursuant to Section 9(c) hereof shall be delivered or sent by mail to such Underwriter at its address to be supplied to the Company by the Representatives upon request; provided, however, that notices under subsection 5(e) shall be in writing, and if to the Underwriters shall be delivered or sent by mail to you as the Representatives (i) in care of Evercore Group L.L.C., 55 East 52nd Street, New York, NY 10055, Attention: ECM General Counsel (fax: (212) 857-3101); (ii) in care of Stifel, Nicolaus & Company, Incorporated, 787 Seventh Avenue, 11th Floor, New York, NY 10019, Attention: Equity Capital Markets; and (iii) in care of Guggenheim Securities, LLC, 330 Madison Avenue, New York, NY 10017, Fax (212) 658-9689, Attention: Head of Equity Capital Markets. Any such statements, requests, notices or agreements shall take effect upon receipt thereof.

In accordance with the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), the Underwriters are required to obtain, verify and record information that identifies their respective clients, including the Company, which information may include the name and address of their respective clients, as well as other information that will allow the Underwriters to properly identify their respective clients.

14. This Agreement shall be binding upon, and inure solely to the benefit of, the Underwriters, the Company, and to the extent provided in Sections 9 and 12 hereof, the officers and directors of the Company and each person who controls the Company or any Underwriter, and their respective heirs, executors, administrators, successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. No purchaser of any of the Securities from any Underwriter shall be deemed a successor or assign by reason merely of such purchase.

15. Time shall be of the essence of this Agreement. As used herein, the term "business day" shall mean any day when the Commission's office in Washington, D.C. is open for business.

16. The Company acknowledges and agrees that (i) the purchase and sale of the Securities pursuant to this Agreement is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other, (ii) in connection therewith and with the process leading to such transaction each Underwriter is acting solely as a principal and not the agent or fiduciary of the Company, (iii) no Underwriter has assumed an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) or any other obligation to the Company except the obligations expressly set forth in this Agreement and (iv) the Company has consulted its own legal and financial advisors to the extent it deemed appropriate. The Company agrees that it will not claim that the Underwriters, or any of them, has rendered advisory services of any nature or respect, or owes a fiduciary or similar duty to the Company, in connection with such transaction or the process leading thereto.

17. This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company and the Underwriters, or any of them, with respect to the subject matter hereof.

18. This Agreement, any claim, controversy or disputes arising under or related to this Agreement and any transaction contemplated by this Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to principles of conflict of laws that would result in the application of any other law than the laws of the State of New York. The Company agrees that any suit or proceeding arising in respect of this Agreement or any transaction contemplated by this Agreement will be tried exclusively in the U.S. District Court for the Southern District of New York or, if that court does not have subject matter jurisdiction, in any state court located in The City and County of New York and the Company agrees to submit to the jurisdiction of, and to venue in, such courts.

19. The Company and each of the Underwriters 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.

20. This Agreement may be executed by any one or more of the parties hereto in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docuSign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

21. Notwithstanding anything herein to the contrary, the Company is authorized to disclose to any persons the U.S. federal and state income tax treatment and tax structure of the potential transaction and all materials of any kind (including tax opinions and other tax analyses) provided to the Company relating to that treatment and structure, without the Underwriters imposing any limitation of any kind. However, any information relating to the tax treatment and tax structure shall remain confidential (and the foregoing sentence shall not apply) to the extent necessary to enable any person to comply with securities laws. For this purpose, "tax structure" is limited to any facts that may be relevant to that treatment.

22. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

(c) As used in this section:

"BHC Act Affiliate" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k).

"Covered Entity" means any of the following:

(i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b);

(ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or

(iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

“Default Right” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

“U.S. Special Resolution Regime” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

[Signature Page Follows]

If the foregoing is in accordance with your understanding, please sign and return to us a counterpart signature page, and upon the acceptance hereof by you, on behalf of each of the Underwriters, this letter and such acceptance hereof shall constitute a binding agreement between each of the Underwriters and the Company. It is understood that your acceptance of this letter on behalf of each of the Underwriters is pursuant to the authority set forth in a form of Agreement among Underwriters, the form of which shall be submitted to the Company for examination upon request, but without warranty on your part as to the authority of the signers thereof.

Very truly yours,

Phathom Pharmaceuticals, Inc.

By: /s/ Molly Henderson

Name: Molly Henderson

Title: Chief Financial Officer

Accepted as of the date hereof:

Evercore Group L.L.C.

By: /s/ Eddy Kim

Name: Eddy Kim

Title: Managing Director

On behalf of each of the Underwriters

Stifel, Nicolaus & Company, Incorporated

By: /s/ Ken Clausman

Name: Ken Clausman

Title: Managing Director

On behalf of each of the Underwriters

Guggenheim Securities, LLC

By: /s/ Jordan Bliss

Name: Jordan Bliss

Title: Senior Managing Director

On behalf of each of the Underwriters

SCHEDULE I

Underwriter	Total Number of Shares to be Purchased	Total Number of Pre-Funded Warrants to be Purchased
Evercore Group L.L.C.	3,521,739	1,056,614
Stifel, Nicolaus & Company, Incorporated	2,391,304	717,454
Guggenheim Securities, LLC	2,043,478	613,097
H.C. Wainwright & Co., LLC	246,377	73,919
Needham & Company, LLC	246,377	73,919
Craig-Hallum Capital Group LLC	246,377	73,919
Total	8,695,652	2,608,922

SCHEDULE II

(a) Issuer Free Writing Prospectuses not included in the Pricing Disclosure Package:

The free writing prospectus dated as of August 19, 2024, substantially in the form set forth in Annex III.

(b) Additional Documents Incorporated by Reference:

None.

(c) Information other than the Pricing Prospectus that comprise the Pricing Disclosure Package:

The offering price per share for the Shares is \$11.500.

The offering price per Pre-Funded Warrant is \$11.499.

The number of Shares purchased by the Underwriters is 8,695,652.

The number of Pre-Funded Warrants being sold by the Company is 2,608,922.

There is no option for the Underwriters to purchase additional shares.

(d) Section 5(d) Writings:

None.

Phathom Pharmaceuticals, Inc.

Form of Lock-Up Agreement

_____, 2024

Evercore Group L.L.C.
Stifel, Nicolaus & Company, Incorporated
Guggenheim Securities, LLC

As representatives of the several Underwriters named in Schedule I to the Underwriting Agreement,

c/o Evercore Group L.L.C.
55 East 52nd Street
New York, New York 10055

c/o Stifel, Nicolaus & Company, Incorporated
787 Seventh Avenue, 11th Floor
New York, New York 10019

c/o Guggenheim Securities, LLC
330 Madison Avenue
New York, New York 10017

Re: Phathom Pharmaceuticals, Inc. – Lock-Up Agreement

Ladies and Gentlemen:

The undersigned understands that you, as representatives (the “Representatives”), propose to enter into an underwriting agreement (the “Underwriting Agreement”) on behalf of the several Underwriters named in Schedule I to such agreement (collectively, the “Underwriters”), with Phathom Pharmaceuticals, Inc., a Delaware corporation (the “Company”), providing for an offering (the “Offering”) of equity securities of the Company, which may include common stock, par value \$0.0001 per share (the “Common Stock”) of the Company (the “Shares”) and pre-funded warrants of the Company to purchase Shares (together with the Shares, the “Securities”) pursuant to a Registration Statement on Form S-3 (the “Registration Statement”) filed with the Securities and Exchange Commission (the “SEC”).

In consideration of the agreement by the Underwriters to offer and sell the Securities, 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 of this Lock-Up Agreement (the “Lock-Up Agreement”) and continuing to and including the date 60 days after the date set forth on the final prospectus supplement (the “Prospectus Supplement”) used to sell the Securities (the “Lock-Up Period”), the undersigned shall not, and shall not cause or direct any of its affiliates to, without the consent of Evercore Group L.L.C. and Stifel, Nicolaus & Company, Incorporated, (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 (any such sale, loan, pledge or other disposition, or transfer of economic consequences, a "Transfer") 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 undersigned represents and warrants that the undersigned is not, and has not caused or directed any of its affiliates to be or become, currently a party to any agreement or arrangement that provides for, is designed to or which reasonably could be expected to lead to or result in any Transfer during the Lock-Up Period.

Notwithstanding the foregoing, the undersigned may, without the consent of Evercore Group L.L.C. and Stifel, Nicolaus & Company, Incorporated, Transfer the undersigned's shares of Common Stock of the Company and Derivative Instruments:

- (i) as a *bona fide* gift or gifts;
- (ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned;
- (iii) if the undersigned is a trust, to the trustor or beneficiary of such trust or to the estate of a beneficiary of such trust;
- (iv) by will or intestate succession to the legal representative, heir or beneficiary of the undersigned;
- (v) as a distribution to limited partners, members or stockholders of the undersigned;
- (vi) to the undersigned's affiliates or to any investment fund or other entity controlled or managed by the undersigned;
- (vii) pursuant to a court or regulatory agency order, a qualified domestic order or in connection with a divorce settlement, provided, (1) the Representatives receive a signed lock-up agreement in the same form as this Lock-Up Agreement for the balance of the Lock-Up Period from each transferee, (2) no public disclosure or filing shall be made voluntarily during the Lock-Up Period, and (3) any required filing under Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), during the Lock-Up Period shall clearly indicate in the footnotes thereto that such Transfer relates to the circumstances described in this clause (vii);

(viii) to the Company as forfeitures to satisfy tax withholding and remittance obligations of the undersigned in connection with the vesting or exercise of equity awards granted pursuant to the Company's equity incentive plans or Derivative Instruments described in the Prospectus Supplement or described in a document incorporated by reference in the Registration Statement or Transfers to the Company pursuant to a net exercise or cashless exercise by the stockholder of outstanding equity awards pursuant to the Company's equity incentive plans or Derivative Instruments described in the Prospectus Supplement or described in a document incorporated by reference in the Registration Statement, provided any Common Stock of the Company issued upon vesting or exercise shall remain subject to the restrictions on transfer set forth in this Lock-Up Agreement, and provided, further, no public disclosure or filing shall be made voluntarily during the Lock-Up Period nor shall be required within 30 days after the date of the Prospectus Supplement, and after such 30th day, any required filing under Section 16 of the Exchange Act during the Lock-Up Period shall clearly indicate in the footnotes thereto that such Transfer is pursuant to the circumstances described in this clause (viii);

(ix) to the Company pursuant to any contractual arrangement disclosed in the Prospectus Supplement, filed as an exhibit to the Registration Statement or described in, or filed as an exhibit to, any other document incorporated by reference in the Registration Statement, and in effect on the date of the Prospectus Supplement that provides for the repurchase by the Company or forfeiture of the undersigned's shares of Common Stock of the Company or Derivative Instruments in connection with the termination of the undersigned's service to the Company, provided that (1) no public disclosure or filing shall be made voluntarily during the Lock-Up Period, and (2) any required filing under Section 16 of the Exchange Act made during the Lock-Up Period shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in this clause (ix); or

(x) upon the completion of a *bona fide* third-party tender offer, merger, consolidation or other similar transaction that is approved by the Board of Directors of the Company and made to all holders of the Company's securities involving a change of control of the Company, provided that, in the event that such tender offer, merger, consolidation or other similar transaction is not completed, any Common Stock of the Company or Derivative Instruments held by the undersigned shall remain subject to the restrictions on transfer set forth in this Lock-Up Agreement (for purposes hereof, "change of control" shall mean the transfer (whether by tender offer, merger, consolidation or other similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons, of shares of capital stock if, after such transfer, such person or group of affiliated persons would hold more than 50% of the outstanding voting securities of the Company (or the surviving entity)).

In addition, with respect to clauses (i) through (vi) above, it shall be a condition to such transfer that (1) the Representatives receive a signed lock-up agreement in the same form as this Lock-Up Agreement for the balance of the Lock-Up Period from each donee, trustee, distributee or transferee, as the case may be, (2) any such transfer shall not involve a disposition for value. In addition, with respect to clause (i) above, no public disclosure or filing shall be made voluntarily during the Lock-Up Period and any required filing under Section 16 of the Exchange Act during the Lock-Up Period shall clearly indicate in the footnotes thereto that such transfer relates to the circumstances described in clause (i) and that the donee has agreed to be bound by a lock-up agreement in the form of this Lock-Up Agreement. In addition, with respect to clauses (ii) through (vi) above, no public filing or disclosure shall be required or voluntarily made during the Lock-Up Period in connection with such transfer. For purposes of this Lock-Up Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin.

In addition, notwithstanding the foregoing, if the undersigned is a corporation, partnership, limited liability company, or similar entity, the undersigned may, without the consent of Evercore Group L.L.C. and Stifel, Nicolaus & Company, Incorporated, transfer shares of Common Stock of the Company to any wholly-owned subsidiary of such corporation, partnership, limited liability company or similar entity; provided, however, that in any such case, it shall be a condition to the transfer that the transferee execute an agreement stating that the transferee is receiving and holding such shares of Common Stock of the Company subject to the provisions of this Lock-Up Agreement and there shall be no further transfer of such capital stock except in accordance with this Lock-Up Agreement, and provided, further that any such transfer shall not involve a disposition for value and no public filing or disclosure shall be required or voluntarily made during the Lock-Up Period in connection with such transfer.

In addition, notwithstanding anything herein to the contrary, the undersigned may, without the consent of Evercore Group L.L.C. and Stifel, Nicolaus & Company, Incorporated, establish a trading plan under Rule 10b5-1 under the Exchange Act (a “10b5-1 Trading Plan”) or amend an existing 10b5-1 Trading Plan so long as there are no sales of Common Stock of the Company or Derivative Instruments under such plan during the Lock-Up Period; provided that, the establishment of a 10b5-1 Trading Plan or the amendment of a 10b5-1 Trading Plan, in either case, providing for sales of shares of Common Stock of the Company or Derivative Instruments shall only be permitted if (1) the establishment or amendment of such plan is not required to be reported during the Lock-up Period in any public report or filing with the SEC, or otherwise, and (2) the undersigned does not otherwise voluntarily effect any public filing or report regarding the establishment or amendment of such plan.

Furthermore, the undersigned may, without the consent of Evercore Group L.L.C. and Stifel, Nicolaus & Company, Incorporated, sell shares of Common Stock of the Company purchased by the undersigned in the Offering or on the open market following the Offering if and only if (i) such sales are not required to be reported in any public report or filing with the SEC, or otherwise, during the Lock-Up Period and (ii) the undersigned does not otherwise voluntarily effect any public filing or report regarding such sales during the Lock-Up Period.

The undersigned now has, and, except as contemplated by any of clauses (i) through (x) above, 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, other than (i) rights of repurchase or vesting conditions in favor of the Company or (ii) any charitable pledge of the undersigned’s Common Stock of the Company that by its terms could not result in any transfer, disposition or distribution of such shares during the term of this Lock-Up Agreement.

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.

The undersigned understands that the Company and the Underwriters are relying upon this Lock-Up Agreement in proceeding toward consummation of the Offering. 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. The undersigned hereby represents and warrants that the undersigned has full power, capacity and authority to enter into this Lock-Up Agreement.

The undersigned acknowledges and agrees that the Underwriters have not provided any recommendation or investment advice nor have the Underwriters solicited any action from the undersigned with respect to the Offering, this Lock-Up Agreement or the subject matter hereof, and the undersigned has consulted their own legal, accounting, financial, regulatory and tax advisors to the extent deemed appropriate. The undersigned further acknowledges and agrees that, although the Underwriters may provide certain Regulation Best Interest and Form CRS disclosures or other related documentation to the undersigned in connection with the Offering, the Underwriters have not made and are not making a recommendation to the undersigned to enter into this Lock-Up Agreement or to transfer, sell or dispose of, or to refrain from transferring, selling or disposing of, any shares of Common Stock, and nothing set forth in such disclosures or documentation is intended to suggest that any Underwriter is making such a recommendation.

This Lock-Up Agreement shall terminate and the undersigned shall be released from all obligations under this Lock-Up Agreement, (i) if the Underwriting Agreement does not become effective by September 30, 2024, (ii) if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Securities to be sold thereunder, or (iii) if the Representatives, on behalf of the underwriters, advise the Company, or the Company advises the Representatives, in writing, prior to the execution of the Underwriting Agreement, that they have determined not to proceed with the Offering.

The undersigned hereby consents to receipt of this Lock-Up Agreement in electronic form and understands and agrees that execution and delivery of this Lock-Up Agreement by facsimile transmission, electronic mail or other electronic transmission is legal, valid and binding for all purposes.

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.

[Signature page follows]

Very truly yours,

Name of Security Holder *(Print exact name)*

By:

Signature

If not signing in an individual capacity:

Name of Authorized Signatory *(Print)*

Title of Authorized Signatory *(Print)*

*(indicate capacity of person signing if signing as custodian,
trustee, or on behalf of an entity)*

FORM OF PRE-FUNDED WARRANT TO PURCHASE COMMON STOCK

PHATHOM PHARMACEUTICALS, INC.

Number of Shares: []
 (subject to adjustment)

Warrant No. ____

Original Issue Date: [], 2024

Phathom Pharmaceuticals, Inc., a Delaware corporation (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, [] or its registered assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company up to a total of [] shares of common stock, \$0.0001 par value per share (the “**Common Stock**”), of the Company (each such share, a “**Warrant Share**” and all such shares, the “**Warrant Shares**”) at an exercise price per share equal to \$0.001 per share (as adjusted from time to time as provided in Section 9 herein, the “**Exercise Price**”), upon surrender of this Warrant to Purchase Common Stock (including any Warrants to Purchase Common Stock issued in exchange, transfer or replacement hereof, the “**Warrant**”) at any time and from time to time on or after the date hereof (the “**Original Issue Date**”), until the Warrant has been exercised in full, subject to the following terms and conditions:

1. *Definitions.* For purposes of this Warrant, the following terms shall have the following meanings:

“**Affiliate**” means, with respect to any Person, any other Person directly or indirectly controlled by, controlling or under common control with, such Person, but only for so long as such control shall continue. For purposes of this definition, “control” (including, with correlative meanings, “controlled by”, “controlling” and “under common control with”) means, with respect to a Person, possession, direct or indirect, of (i) the power to direct or cause direction of the management and policies of such Person (whether through ownership of securities or partnership or other ownership interests, by contract or otherwise), or (ii) more than 50% of the voting securities (whether directly or pursuant to any option, warrant or other similar arrangement) or other comparable equity interests.

“**Attribution Parties**” means, collectively, the following Persons and entities: (i) any direct or indirect Affiliates of the Holder, (ii) any Person acting or who could be deemed to be acting as a Group together with the Holder or any Attribution Parties and (iii) any other Persons whose beneficial ownership of the Common Stock would or could be aggregated with the Holder’s and/or any other Attribution Parties for purposes of Section 13(d) or Section 16 of the Exchange Act. For clarity, the purpose of the foregoing is to subject collectively the Holder and all other Attribution Parties to the Maximum Percentage.

“**Closing Sale Price**” means, for any security as of any date, the last trade price for such security on the Principal Trading Market for such security, as reported by Bloomberg Financial Markets, or, if such Principal Trading Market begins to operate on an extended hours basis and does not designate the last trade price, then the last trade price of such security prior to 4:00 P.M., New York City time, as reported by Bloomberg Financial Markets, or if the foregoing do not apply, the last trade price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg Financial Markets, or if no last trade price is reported for such security by Bloomberg Financial Markets, the average of the bid and ask prices of any market makers for such security as reported in the OTC Link or “pink sheets” by OTC Markets Group Inc. as of 4:00 P.M., New York City time on such date. If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then the Board of Directors of the Company shall use its good faith judgment to determine the fair market value. The Board of Directors’ determination shall be binding upon all parties absent demonstrable error. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

“**Commission**” means the United States Securities and Exchange Commission.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

“**Group**” shall have the meaning ascribed to it in Section 13(d) of the Exchange Act, and all related rules, regulations and jurisprudence.

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

“**Principal Trading Market**” means the national securities exchange or other trading market on which the Common Stock is primarily listed on and quoted for trading, which, as of the Original Issue Date, shall be the Nasdaq Global Select Market.

“**Registration Statement**” means the Company’s Registration Statement on Form S-3 (File No. 333-275431), declared effective on November 17, 2023.

“**Securities Act**” means the Securities Act of 1933, as amended.

“**Standard Settlement Period**” means the standard settlement period, expressed in a number of Trading Days, for the Principal Trading Market with respect to the Common Stock that is in effect on the date of delivery of an applicable Exercise Notice, which as of the Original Issue Date was “T+1.”

“**Trading Day**” means any weekday on which the Principal Trading Market is normally open for trading.

“**Transfer Agent**” means Computershare Trust Company, N.A., the Company’s transfer agent and registrar for the Common Stock, and any successor appointed in such capacity.

2. *Issuance of Securities; Registration of Warrants.* The Warrant, as initially issued by the Company, is offered and sold pursuant to the Registration Statement. As of the Original Issue Date, the Warrant Shares are issuable under the Registration Statement. Accordingly, the Warrant and, assuming issuance pursuant to the Registration Statement or an exchange meeting the requirements of Section 3(a)(9) of the Securities Act as in effect on the Original Issue Date, the Warrant Shares, are not “restricted securities” under Rule 144 promulgated under the Securities Act. The Company shall register ownership of this Warrant, upon records to be maintained by the Company for that purpose (the “**Warrant Register**”), in the name of the record Holder (which shall include the initial Holder or, as the case may be, any assignee to which this Warrant is permissibly assigned hereunder) from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

3. *Registration of Transfers.* Subject to compliance with all applicable securities laws, the Company shall, or will cause its Transfer Agent to, register the transfer of all or any portion of this Warrant in the Warrant Register, upon surrender of this Warrant, and payment for all applicable transfer taxes (if any). Upon any such registration or transfer, a new warrant to purchase Common Stock in substantially the form of this Warrant (any such new warrant, a “**New Warrant**”) evidencing the portion of this Warrant so transferred shall be issued to the transferee, and a New Warrant evidencing the remaining portion of this Warrant not so transferred, if any, shall be issued to the transferring Holder. The acceptance of the New Warrant by the transferee thereof shall be deemed the acceptance by such transferee of all of the rights and obligations in respect of the New Warrant that the Holder has in respect of this Warrant. The Company shall, or will cause its Transfer Agent to, prepare, issue and deliver at the Company’s own expense any New Warrant under this Section 3. Until due presentment for registration of transfer, the Company may treat the registered Holder hereof as the owner and holder for all purposes, and the Company shall not be affected by any notice to the contrary.

4. *Exercise of Warrants.*

(a) All or any part of this Warrant shall be exercisable by the registered Holder in any manner permitted by this Warrant (including Section 11) at any time and from time to time on or after the Original Issue Date, and such rights shall not expire until the Warrant has been exercised in full.

(b) The Holder may exercise this Warrant by delivering to the Company (i) an exercise notice, in the form attached as Schedule 1 hereto (the “**Exercise Notice**”), completed and duly signed, and (ii) payment of the Exercise Price for the number of Warrant Shares as to which this Warrant is being exercised (which may take the form of a “cashless exercise” if so indicated in the Exercise Notice pursuant to Section 10 below), and the date on which the last of such items is delivered to the Company (as determined in accordance with the notice provisions hereof) is an “**Exercise Date**.” The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder. Execution and delivery of the Exercise Notice shall have the same effect as cancellation of the original Warrant and issuance of a New Warrant evidencing the right to purchase the remaining number of Warrant Shares, if any.

5. Delivery of Warrant Shares.

(a) Upon exercise of this Warrant, the Company shall promptly (but in no event later than the number of Trading Days comprising the Standard Settlement Period following the Exercise Date), upon the request of the Holder, credit such aggregate number of shares of Common Stock specified by the Holder in the Exercise Notice and to which the Holder is entitled pursuant to such exercise (the “*Exercise Shares*”) to the Holder’s or its designee’s balance account with The Depository Trust Company (“*DTC*”) through its Deposit Withdrawal At Custodian system, or if the Transfer Agent is then a participant in the DTC Fast Automated Securities Transfer Program (the “*FAST Program*”). If the Transfer Agent is not a member of the FAST Program, the Transfer Agent will either (i) record the Exercise Shares in the name of the Holder or its designee on the certificates reflecting the Exercise Shares with an appropriate legend regarding restriction on transferability, which shall be issued and dispatched by overnight courier to the address as specified in the Exercise Notice, and on the Company’s share register or (ii) issue such Exercise Shares in the name of the Holder or its designee in restricted book-entry form in the Company’s share register. The Holder, or any Person so designated by the Holder to receive Warrant Shares, shall be deemed to have become the holder of record of such Warrant Shares as of the Exercise Date, irrespective of the date such Warrant Shares are credited to the Holder’s DTC account, the date of the book entry positions or the date of delivery of the certificates evidencing such Exercise Shares, as the case may be.

(b) If the Company fails to deliver to the Holder or its designee Exercise Shares in the manner required pursuant to Section 5(a) within the Standard Settlement Period following the Exercise Date (other than a failure solely caused by incorrect or incomplete information provided by the Holder to the Company) and the Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a “*Buy-In*”) but did not receive within the Standard Settlement Period, then the Company shall, within two (2) Trading Days after the Holder’s request, (1) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased in the Buy-In exceeds (y) the amount obtained by multiplying (A) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (B) the Closing Sale Price of a share of Common Stock on the Exercise Date, and (2) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder.

(c) To the extent permitted by law and subject to Section 5(b), the Company’s obligations to issue and deliver Warrant Shares in accordance with and subject to the terms hereof (including the limitations set forth in Section 11 below) are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by the Holder or any other Person of any obligation to the Company or any violation or alleged violation of law by the Holder or any other Person, and irrespective of any other circumstance that might otherwise limit such obligation of the Company to the Holder in connection with the issuance of Warrant Shares. Subject to Section 5(b), nothing herein shall limit the Holder’s right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company’s failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

6. *Charges, Taxes and Expenses.* Issuance and delivery for shares of Common Stock upon exercise of this Warrant shall be made without charge to the Holder for any issue or transfer tax, transfer agent fee or other incidental tax or expense (excluding any applicable stamp duties) in respect of the issuance of such certificates, all of which taxes and expenses shall be paid by the Company; *provided, however,* that the Company shall not be required to pay any tax that may be payable in respect of any transfer involved in the registration of any Warrant Shares or the Warrants in a name other than that of the Holder or an Affiliate thereof. The Holder shall be responsible for all other tax liability that may arise as a result of holding or transferring this Warrant or receiving Warrant Shares upon exercise hereof.

7. *Replacement of Warrant.* If this Warrant is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation hereof, or in lieu of and substitution for this Warrant, a New Warrant, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction (in such case) and, in each case, a customary and reasonable contractual indemnity, if requested by the Company. If a New Warrant is requested as a result of a mutilation of this Warrant, then the Holder shall deliver such mutilated Warrant to the Company as a condition precedent to the Company's obligation to issue the New Warrant.

8. *Reservation of Warrant Shares.* The Company covenants that it will, at all times while this Warrant is outstanding, reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved Common Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of this Warrant as herein provided, the number of Warrant Shares that are initially issuable and deliverable upon the exercise of this entire Warrant, free from preemptive rights or any other contingent purchase rights of persons other than the Holder (taking into account the adjustments and restrictions of Section 9). The Company covenants that all Warrant Shares so issuable and deliverable shall, upon issuance and the payment of the applicable Exercise Price in accordance with the terms hereof, be duly authorized, validly issued, and fully paid and non-assessable. The Company will take all such action as may be reasonably necessary to assure that such shares of Common Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system upon which the Common Stock may be listed. The Company further covenants that it will not, without the prior written consent of the Holder, take any actions to increase the par value of the Common Stock at any time while this Warrant is outstanding.

9. *Certain Adjustments.* The Exercise Price and number of Warrant Shares issuable upon exercise of this Warrant are subject to adjustment from time to time as set forth in this Section 9.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding, (i) pays a stock dividend on its Common Stock or otherwise makes a distribution on any class of capital stock issued and outstanding on the Original Issue Date and in accordance with the terms of such stock on the Original Issue Date or as amended, that is payable in shares of Common Stock, (ii) subdivides its outstanding shares of Common Stock into a larger number of shares of Common Stock, (iii) combines its outstanding shares of Common Stock into a smaller number of shares of Common Stock or (iv) issues by reclassification of shares of capital stock any additional shares of Common Stock of the Company, then in each such case the number of Warrant Shares and Exercise Price shall be multiplied by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately before such event and the denominator of which shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, *provided, however*, that if such record date shall have been fixed and such dividend is not fully paid on the date fixed therefor, the number of Warrant Shares and Exercise Price shall be recomputed accordingly as of the close of business on such record date and thereafter the number of Warrant Shares and Exercise Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends. Any adjustment pursuant to clause (ii), (iii) or (iv) of this paragraph shall become effective immediately after the effective date of such subdivision, combination or issuance.

(b) Pro Rata Distributions. If, on or after the Original Issue Date, the Company shall declare or make any dividend or other pro rata distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction, but, for the avoidance of doubt, excluding any distribution of shares of Common Stock subject to Section 9(a), any distribution of Purchase Rights (as defined below) subject to Section 9(c) and any Fundamental Transaction (as defined below) subject to Section 9(d)), (a "**Distribution**") then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage (as defined below)) immediately before the date on which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (*provided*, that to the extent that the Holder's right to participate in any such Distribution would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Distribution to such extent (and shall not be entitled to beneficial ownership of such shares of Common Stock as a result of such Distribution (and beneficial ownership) to such extent) and such portion

of such Distribution shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such Distribution (and any Distributions declared or made on such initial Distribution or on any subsequent Distribution held similarly in abeyance) to the same extent as if there had been no such limitation).

(c) **Purchase Rights.** If at any time on or after the Original Issue Date, the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property, in each case pro rata to the record holders of any class of Common Stock (the “**Purchase Rights**”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Common Stock are to be determined for the grant, issuance or sale of such Purchase Rights (*provided*, that to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Purchase Right to such extent (and shall not be entitled to beneficial ownership of such Common Stock as a result of such Purchase Right (and beneficial ownership) to such extent) and at the Holder’s election, in its sole discretion, either (1) such Purchase Right to such extent shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such right (and any Purchase Right granted, issued or sold on such initial Purchase Right or on any subsequent Purchase Right to be held similarly in abeyance) to the same extent as if there had been no such limitation or (2) the Company shall offer the Holder the right upon exercise of such Purchase Right to acquire a security (e.g. a pre-funded warrant) that would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage but will otherwise to the extent possible have economic and other rights, preferences and privileges substantially consistent and on par with the securities or other property issuable upon exercise of the originally offered Purchase Rights). As used in this Section 9(c), (i) “Options” means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities and (ii) “Convertible Securities” mean any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for shares of Common Stock.

(d) **Fundamental Transactions.** If, at any time while this Warrant is outstanding (i) the Company effects any merger or consolidation of the Company with or into another Person, in which the Company is not the surviving entity or in which the stockholders of the Company immediately prior to such merger or consolidation do not own, directly or indirectly, more than 50% of the voting power of the surviving entity immediately after such merger or consolidation, (ii) the Company effects any sale to another Person of all or substantially all of its assets in one or a series of related transactions, (iii) pursuant to any tender offer or exchange offer (whether by the Company or another Person), holders of capital stock tender shares representing more than 50% of the voting power of the capital stock of the Company and the Company or such other Person, as applicable, accepts such tender for payment, (iv) the Company consummates a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the voting power of the capital stock of the Company (except for any such transaction in which the stockholders of the Company immediately prior to such transaction maintain, in substantially the same proportions, the voting power of such Person immediately after the transaction) or (v) the Company effects any reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as a result of a subdivision or combination of shares of Common Stock covered by Section 9(a) above) (in any such case, a “**Fundamental Transaction**”), then following such Fundamental Transaction the Holder shall have the right to receive, upon exercise of this Warrant, the same amount and kind of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of the number of Warrant Shares then issuable upon exercise in full of this Warrant (including any Distributions or Purchase Rights then held in abeyance pursuant to Sections 9(b) or 9(c) above) without regard to any limitations on exercise contained herein (the “**Alternate Consideration**”). The Company shall not effect any Fundamental Transaction in which the Company is not the surviving entity or the Alternate Consideration includes securities of another Person unless (i) the Alternate Consideration is solely cash and the Company provides for the simultaneous “cashless exercise” of this Warrant pursuant to Section 10 below or

(ii) prior to or simultaneously with the consummation thereof, any successor to the Company, surviving entity or other Person (including any purchaser of assets of the Company) shall assume the obligation to deliver to the Holder such Alternate Consideration as, in accordance with the foregoing provisions, the Holder may be entitled to receive, and the other obligations under this Warrant. The provisions of this paragraph (d) shall similarly apply to subsequent transactions analogous of a Fundamental Transaction type.

(e) Number of Warrant Shares. Simultaneously with any adjustment to the Exercise Price pursuant to Section 9, the number of Warrant Shares that may be purchased upon exercise of this Warrant shall be increased or decreased proportionately, so that after such adjustment the aggregate Exercise Price payable hereunder for the increased or decreased number of Warrant Shares shall be the same as the aggregate Exercise Price in effect immediately prior to such adjustment.

(f) Calculations. All calculations under this Section 9 shall be made to the nearest one-tenth of one cent or the nearest share, as applicable.

(g) Notice of Adjustments. Upon the occurrence of each adjustment pursuant to this Section 9, the Company at its expense will, at the written request of the Holder, promptly compute such adjustment, in good faith, in accordance with the terms of this Warrant and prepare a certificate setting forth such adjustment, including a statement of the adjusted Exercise Price and adjusted number or type of Warrant Shares or other securities issuable upon exercise of this Warrant (as applicable), describing the transactions giving rise to such adjustments and showing in detail the facts upon which such adjustment is based. Upon written request, the Company will promptly deliver a copy of each such certificate to the Holder and to the Transfer Agent.

(h) Notice of Corporate Events. If, while this Warrant is outstanding, the Company (i) declares a dividend or any other distribution of cash, securities or other property in respect of its Common Stock, including, without limitation, any granting of rights or warrants to subscribe for or purchase any capital stock of the Company or any subsidiary, (ii) authorizes or approves, enters into any agreement contemplating or solicits stockholder approval for any Fundamental Transaction or (iii) authorizes the voluntary dissolution, liquidation or winding up of the affairs of the Company, then the Company shall deliver to the Holder a notice of such transaction at least ten (10) days prior to the applicable record or effective date on which a Person would need to hold Common Stock in order to participate in or vote with respect to such transaction; *provided, however*, that the failure to deliver such notice or any defect therein shall not affect the validity of the corporate action required to be described in such notice. In addition, if while this Warrant is outstanding, the Company authorizes or approves, enters into any agreement contemplating or solicits stockholder approval for any Fundamental Transaction contemplated by Section 9(d), other than a Fundamental Transaction under clause (iii) of Section 9(d), the Company shall deliver to the Holder a notice of such Fundamental Transaction at least fifteen (15) days prior to the date such Fundamental Transaction is consummated. Holder agrees to maintain any information disclosed pursuant to this Section 9(h) in confidence until such information is publicly available, and shall comply with applicable law with respect to trading in the Company's securities following receipt of any such information.

10. Payment of Exercise Price. Notwithstanding anything contained herein to the contrary, the Holder may, in its sole discretion, satisfy its obligation to pay the Exercise Price through a "cashless exercise", in which event the Company shall issue to the Holder the number of Warrant Shares in an exchange of securities effected pursuant to Section 3(a)(9) of the Securities Act, as determined as follows:

$$X = Y [(A-B)/A]$$

where:

"X" equals the number of Warrant Shares to be issued to the Holder;

"Y" equals the total number of Warrant Shares with respect to which this Warrant is then being exercised;

"A" equals the Closing Sale Price of the shares of Common Stock (as reported by Bloomberg Financial Markets) as of the Trading Day on the date immediately preceding the Exercise Date; and

"B" equals the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

For purposes of Rule 144 promulgated under the Securities Act, it is intended, understood and acknowledged that the Warrant Shares issued in a "cashless exercise" transaction shall be deemed to have been acquired by the Holder, and the holding period for the Warrant Shares shall be deemed to have commenced, on the date this Warrant was originally issued (*provided* that the Commission continues to take the position that such treatment is proper at the

time of such exercise). In the event that the Registration Statement or another registration statement registering the issuance of Warrant Shares is, for any reason, not effective at the time of exercise of this Warrant, then the Warrant may only be exercised through a cashless exercise, as set forth in this [Section 10](#). Except as set forth in Section 5(b) (Buy-In remedy) and Section 12 (payment of cash in lieu of fractional shares), in no event will the exercise of this Warrant be settled in cash.

11. *Limitations on Exercise.*

(a) Notwithstanding anything to the contrary contained herein, the Company shall not effect the exercise of any portion of this Warrant, and the Holder of the Warrant shall not have the right to exercise any portion of the Warrant, and any such exercise shall be null and void ab initio and treated as if the exercise had not been made, to the extent that immediately prior to or following such exercise, the Holder, together with the Attribution Parties, beneficially owns or would beneficially own as determined in accordance with Section 13(d) of the Exchange Act and the rules promulgated thereunder, in excess of [4.99%][9.99%][19.99%] (the “**Maximum Percentage**”) of the Common Stock that would be issued and outstanding following such exercise. For purposes of calculating beneficial ownership for determining whether the Maximum Percentage is or will be exceeded, the aggregate number of shares of Common Stock held and/or beneficially owned by the Holder together with the Attribution Parties, shall include the number of shares of Common Stock held and/or beneficially owned by the Holder together with the Attribution Parties plus the number of shares of Common Stock issuable upon exercise of the relevant Warrant with respect to which the determination is being made but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, unexercised Warrant held and/or beneficially owned by the Holder or the Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company held and/or beneficially owned by such Holder or any Attribution Party (including, without limitation, any convertible notes, convertible stock or warrants) that are subject to a limitation on conversion or exercise analogous to the limitation contained herein. For purposes of this [Section 11\(a\)](#), beneficial ownership of the Holder or the Attribution Parties shall, except as set forth in the immediately preceding sentence, be calculated and determined in accordance with Section 13(d) of the Exchange Act and the rules promulgated thereunder. For purposes of the Warrant, in determining the number of outstanding shares of Common Stock, a Holder of the Warrant may rely on the number of outstanding shares of Common Stock as reflected in (1) the Company’s most recent Form 10-K, Form 10-Q, Current Report on Form 8-K or other public filing with the Commission, as the case may be, (2) a more recent public announcement by the Company or (3) any other notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding (such issued and outstanding shares, the “**Reported Outstanding Share Number**”). For any reason at any time, upon the written or oral request of the Holder, the Company shall within one (1) Business Day confirm orally and in writing or by electronic mail to the Holder the number of shares of Common Stock then outstanding. The Holder shall disclose to the Company the number of shares of Common Stock that it, together with the Attribution Parties holds and/or beneficially owns and has the right to acquire through the exercise of derivative securities and any limitations on exercise or conversion analogous to the limitation contained herein contemporaneously or immediately prior to submitting an Exercise Notice for the relevant Warrant. If the Company receives an Exercise Notice from the Holder at a time when the actual number of outstanding shares of Common Stock is less than the Reported Outstanding Share Number, the Company shall (i) notify the Holder in writing of the number of shares of Common Stock then outstanding and, to the extent that such Exercise Notice would otherwise cause the Holder’s, together with the Attribution Parties’, beneficial ownership, as determined pursuant to this Section 11(a), to exceed the Maximum Percentage, the Holder must notify the Company of a reduced number of Warrant Shares to be purchased pursuant to such Exercise Notice (the number of shares by which such purchase is reduced, the “**Reduction Shares**”) and (ii) as soon as reasonably practicable, the Company shall return to the Holder any exercise price paid by the Holder for the Reduction Shares. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder and the Attribution Parties since the date as of which the Reported Outstanding Share Number was reported. In the event that the issuance of Common Stock to the Holder upon exercise of this Warrant results in the Holder, together with the Attribution Parties, being deemed to beneficially own, in the aggregate, more than the Maximum Percentage of the number of outstanding shares of Common Stock (as determined under Section 13(d) of the Exchange Act), the number of shares so issued by which the Holder’s, together with the Attribution Parties’, aggregate beneficial ownership exceeds the Maximum Percentage (the “**Excess Shares**”) shall be deemed null and void and shall be cancelled ab initio, and the Holder and/or the Attribution Parties shall not have the power to vote or to transfer the Excess Shares. As soon as reasonably practicable after the issuance of the Excess Shares has been deemed null and void, the Company shall return to the Holder the exercise price paid by the Holder for the Excess Shares. By written

notice to the Company, a Holder of the Warrant may from time to time increase or decrease the Maximum Percentage to any other percentage not in excess of 19.99% specified in such notice; *provided* that any increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and shall not negatively affect any partial exercise effected prior to such change.

(b) This Section 11 shall not restrict the number of shares of Common Stock which a Holder or the Attribution Parties may receive or beneficially own in order to determine the amount of securities or other consideration that such Holder or the Attribution Parties may receive in the event of a Fundamental Transaction as contemplated in Section 9(d) of this Warrant. For purposes of clarity, the shares of Common Stock issuable pursuant to the terms of this Warrant in excess of the Maximum Percentage shall not be deemed to be beneficially owned by the Holder or the Attribution Parties for any purpose including for purposes of Section 13(d) of the Exchange Act and the rules promulgated thereunder or Section 16 of the Exchange Act and the rules promulgated thereunder, including Rule 16a-1(a)(1). No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of Section 11(a) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in Section 11(a) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitation contained in this paragraph may not be waived and shall apply to a successor holder of this Warrant.

12. *No Fractional Shares.* No fractional Warrant Shares will be issued in connection with any exercise of this Warrant. In lieu of any fractional shares that would otherwise be issuable, the number of Warrant Shares to be issued shall be rounded down to the next whole number and the Company shall pay the Holder in cash the fair market value (based on the Closing Sale Price) for any such fractional shares.

13. *Notices.* Any and all notices or other communications or deliveries hereunder (including, without limitation, any Exercise Notice) shall be in writing and shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered confirmed e-mail at the e-mail address specified in the books and records of the Transfer Agent prior to 5:30 P.M., New York City time, on a Trading Day, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via confirmed e-mail at the e-mail address specified in the books and records of the Transfer Agent on a day that is not a Trading Day or later than 5:30 P.M., New York City time, on any Trading Day, (iii) the Trading Day following the date of mailing, if sent by nationally recognized overnight courier service specifying next business day delivery, or (iv) upon actual receipt by the Person to whom such notice is required to be given, if by hand delivery.

14. *Warrant Agent.* The Company shall initially serve as warrant agent under this Warrant. Upon ten (10) days' notice to the Holder, the Company may appoint a new warrant agent. Any corporation into which the Company or any new warrant agent may be merged or any corporation resulting from any consolidation to which the Company or any new warrant agent shall be a party or any corporation to which the Company or any new warrant agent transfers substantially all of its corporate trust or shareholders services business shall be a successor warrant agent under this Warrant without any further act. Any such successor warrant agent shall promptly cause notice of its succession as warrant agent to be mailed (by first class mail, postage prepaid) to the Holder at the Holder's last address as shown on the Warrant Register.

15. *Miscellaneous.*

(a) No Rights as a Stockholder. Except as otherwise set forth in this Warrant, the Holder, solely in such Person's capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, amalgamation, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company.

(b) Authorized Shares. (i) Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate or articles of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and non-assessable Warrant Shares upon the exercise of this Warrant, and (c) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof as may be necessary to enable the Company to perform its obligations under this Warrant.

(ii) Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

(c) Successors and Assigns. Subject to compliance with applicable securities laws, this Warrant may be assigned by the Holder. This Warrant may not be assigned by the Company without the written consent of the Holder, except to a successor in the event of a Fundamental Transaction. This Warrant shall be binding on and inure to the benefit of the Company and the Holder and their respective successors and assigns. Subject to the preceding sentence, nothing in this Warrant shall be construed to give to any Person other than the Company and the Holder any legal or equitable right, remedy or cause of action under this Warrant. This Warrant may be amended only in writing signed by the Company and the Holder, or their successors and assigns.

(d) Amendment and Waiver. Except as otherwise provided herein, the provisions of the Warrants may be amended and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder.

(e) Acceptance. Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to all of the terms and conditions contained herein.

(f) Governing Law; Jurisdiction. This Warrant shall be governed by and interpreted in accordance with the substantive laws of the State of New York, without regard to its or any other jurisdiction's choice of law rules. Any and all disputes arising out of, concerning, or related to this Warrant, or to the construction, validity, enforcement and interpretation thereof, shall be referred to and resolved by the federal courts located in New York, New York or, to the extent no such court has subject matter jurisdiction, the state courts of the State of New York located in New York, New York (the "**Specified Courts**"). Each of the Company and the Holder irrevocably and unconditionally submits to the exclusive jurisdiction of the Specified Courts, waives any objection to the laying of venue of any suit, action or proceeding brought in such courts and waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. EACH OF THE COMPANY AND THE HOLDER HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS WARRANT. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE THIS WARRANT. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE COMPANY AND THE HOLDER AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH OF THE COMPANY AND THE HOLDER HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

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

(h) Severability. In case any one or more of the provisions of this Warrant shall be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Warrant shall not in any way be affected or impaired thereby, and the Company and the Holder will attempt in good faith to agree upon a valid and enforceable provision which shall be a commercially reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Warrant.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the Company has caused this Warrant to be duly executed by its authorized officer as of the date first indicated above.

PHATHOM PHARMACEUTICALS, INC.

By: _____
Name:
Title:

SCHEDULE 1
FORM OF EXERCISE NOTICE

[To be executed by the Holder to purchase shares of Common Stock under the Warrant]

Ladies and Gentlemen:

(1) The undersigned is the Holder of Warrant No. ___ (the "Warrant") issued by **PHATHOM PHARMACEUTICALS, INC.**, a Delaware corporation (the "**Company**"). Capitalized terms used herein and not otherwise defined herein have the respective meanings set forth in the Warrant.

(2) The undersigned hereby exercises its right to purchase Warrant Shares pursuant to the Warrant.

(3) The Holder intends that payment of the Exercise Price shall be made as (check one):

Cash Exercise

"Cashless Exercise" under Section 10 of the Warrant

(4) If the Holder has elected a Cash Exercise, the Holder shall pay the sum of \$ _____ in immediately available funds to the Company in accordance with the terms of the Warrant.

(5) Pursuant to this Exercise Notice, the Company shall deliver to the Holder Warrant Shares determined in accordance with the terms of the Warrant.

(6) By its delivery of this Exercise Notice, the undersigned represents and warrants to the Company that in giving effect to the exercise evidenced hereby the Holder will not beneficially own in excess of the number of shares of Common Stock (as determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended) permitted to be owned under Section 11(a) of the Warrant to which this notice relates.

Dated: _____

Name of Holder: _____

By: _____

Name: _____

Title: _____

(Signature must conform in all respects to name of Holder as specified on the face of the Warrant)

12670 High Bluff Drive
 San Diego, California 92130
 Tel: +1.858.523.5400 Fax: +1.858.523.5450
 www.lw.com

LATHAM & WATKINS LLP

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Madrid	

August 19, 2024

Phathom Pharmaceuticals, Inc.
 100 Campus Drive, Suite 102
 Florham Park, New Jersey 07932

Re: Registration Statement on Form S-3 (No. 333-275431); 8,695,652 shares of Common Stock, par value \$0.0001 per share, and pre-funded warrants to purchase 2,608,922 shares of Common Stock

To the addressee set forth above:

We have acted as special counsel to Phathom Pharmaceuticals, Inc., a Delaware corporation (the “*Company*”), in connection with the offering of 8,695,652 shares of common stock of the Company, par value \$0.0001 per share (the “*Shares*”) and pre-funded warrants to purchase 2,608,922 shares of Common Stock (the “*Pre-Funded Warrants*”). The offering of the Shares and Pre-Funded Warrants were made under a registration statement on Form S-3 under the Securities Act of 1933, as amended (the “*Act*”), filed with the Securities and Exchange Commission (the “*Commission*”) on November 9, 2023 (Registration No. 333-275431) (the “*Registration Statement*”), and are being offered pursuant to a base prospectus dated November 17, 2023 included in the Registration Statement at the time it originally became effective (the “*Base Prospectus*”), and a prospectus supplement dated August 19, 2024 filed with the Commission pursuant to Rule 424(b) under the Act (together with the Base Prospectus, the “*Prospectus*”), and pursuant to an underwriting agreement dated August 19, 2024 by and among the Company and Evercore Group L.L.C., Stifel, Nicolaus & Company, Incorporated and Guggenheim Securities, LLC as representatives of the several underwriters listed on Schedule I thereto, and the Company (the “*Underwriting Agreement*”).

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

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

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof:

1. When the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the Underwriting Agreement, the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable.
2. When the Pre-Funded Warrants have been duly issued by the Company against payment therefor in the circumstances contemplated by Underwriting Agreement, the issue and sale of the Pre-Funded Warrants will have been duly authorized by all necessary corporate action of the Company, and the Pre-Funded Warrants will be legally valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.
3. When the shares of Common Stock initially issuable upon exercise of the Pre-Funded Warrants (the “*Warrant Shares*”) shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the Pre-Funded Warrant holders, and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the Pre-Funded Warrants, the issue of the Warrant Shares will have been duly authorized by all necessary corporate action of the Company and the Warrant Shares will be validly issued, fully paid and non-assessable.

In rendering the foregoing opinions, we have assumed that (i) the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL and (ii) upon the issue of any of the Warrant Shares, the total number of shares of Common Stock issued and outstanding will not exceed the total number of shares of Common Stock that the Company is then authorized to issue under its Amended and Restated Certificate of Incorporation and by the board of directors of the Company in connection with the offering contemplated by the Registration Statement and the Prospectus.

With your consent, we have assumed that the status of the Pre-Funded Warrants as legally valid and binding obligations of the Company is not affected by any (i) breaches of, or defaults under, agreements or instruments, (ii) violations of statutes, rules, regulations or court or governmental orders, or (iii) failures to obtain required consents, approvals or authorizations from, or make required registrations, declarations or filings with, governmental authorities.

Our opinions are subject to: (i) the effect of bankruptcy, insolvency, reorganization, preference, fraudulent transfer, moratorium or other similar laws relating to or affecting the rights and remedies of creditors; (ii) (a) the effect of general principles of equity, whether considered in a proceeding in equity or at law (including the possible unavailability of specific performance or injunctive relief), (b) concepts of materiality, reasonableness, good faith and fair dealing, and (c) the discretion of the court before which a proceeding is brought; and (iii) the invalidity under certain circumstances under law or court decisions of provisions providing for the indemnification of or contribution to a party with respect to a liability where such indemnification or contribution is contrary to public policy. We express no opinion as to (a) any provision for liquidated damages, default interest, late charges, monetary penalties, make-whole premiums or other economic remedies to the extent such provisions are deemed to constitute a penalty; (b) consents to, or restrictions upon, governing law, jurisdiction, venue, arbitration, remedies, or judicial relief; (c) any provision requiring the payment of attorneys' fees, where such payment is contrary to law or public policy; (d) other applicable exceptions; and (e) the severability, if invalid, of provisions to the foregoing effect.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Company's Current Report on Form 8-K dated August 19, 2024 and to the reference to our firm in the Prospectus under the heading "Legal Matters." In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Sincerely,

/s/ Latham & Watkins LLP



Phathom Pharmaceuticals Announces Pricing of \$130 Million Offering of Common Stock and Pre-Funded Warrants

Florham Park, N.J., August 19, 2024 – Phathom Pharmaceuticals, Inc. (Nasdaq: PHAT), a biopharmaceutical company focused on developing and commercializing novel treatments for gastrointestinal diseases, announced today the pricing of its underwritten offering of 8,695,652 shares of its common stock and pre-funded warrants to purchase 2,608,922 shares of common stock. The shares of common stock are being sold at a price of \$11.50 per share and the pre-funded warrants are being sold at a price of \$11.499 per pre-funded warrant, which represents the per share price for the common stock less the \$0.001 per share exercise price for each such pre-funded warrant. The gross proceeds to Phathom from the offering, before deducting the underwriting discounts and commissions and other offering expenses, are expected to be approximately \$130 million. The offering is expected to close on or about August 20, 2024, subject to satisfaction of customary closing conditions.

Phathom intends to use the net proceeds from the offering to fund commercialization expenses and further clinical development of vonoprazan and for working capital and general corporate purposes.

Evercore ISI, Stifel and Guggenheim Securities are acting as joint bookrunning managers for the offering. H.C. Wainwright & Co., Needham & Company and Craig-Hallum are acting as co-lead managers for the offering.

The securities described above are being offered by Phathom pursuant to a shelf registration statement previously filed and declared effective by the Securities and Exchange Commission (SEC). An electronic copy of the accompanying prospectus was filed with the SEC and is available on the website of the SEC at <http://www.sec.gov>. When available, copies of the final prospectus supplement and the accompanying prospectus relating to the offering may be obtained from: Evercore Group L.L.C., Attention: Equity Capital Markets, 55 East 52nd Street, 35th Floor, New York, NY 10055, by telephone at (888) 474-0200 or by email at ecm.prospectus@evercore.com; Stifel, Nicolaus & Company, Incorporated, One Montgomery Street, Suite 3700, San Francisco, CA 94104, Attention: Syndicate, or by phone at (415) 364-2720, or by email at syndprospectus@stifel.com; or Guggenheim Securities, LLC, Attention: Equity Syndicate Department, 330 Madison Avenue, 8th floor, New York, NY 10017, by telephone at (212) 518-9544, or by email at GSEquityProspectusDelivery@guggenheimpartners.com.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy these securities, nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such jurisdiction.

About Phathom

Phathom Pharmaceuticals is a biopharmaceutical company focused on the development and commercialization of novel treatments for gastrointestinal diseases. Phathom has in-licensed the exclusive rights to vonoprazan, a first-in-class potassium-competitive acid blocker (PCAB) that is currently marketed in the United States as VOQUEZNA® (vonoprazan) tablets for the treatment of heartburn associated with Non-Erosive GERD in adults, the healing and maintenance of healing of Erosive GERD in adults and associated heartburn, in addition to VOQUEZNA® TRIPLE PAK® (vonoprazan tablets, amoxicillin capsules, clarithromycin tablets) and VOQUEZNA® DUAL PAK® (vonoprazan tablets, amoxicillin capsules) for the treatment of H. pylori infection in adults.

Forward-Looking Statements

Phathom cautions you that statements contained in this press release regarding matters that are not historical facts are forward-looking statements. These statements are based on the company's current beliefs and expectations. Such forward-looking statements include, but are not limited to, statements relating to the satisfaction of customary closing conditions related to the offering, the expected closing of the offering and the anticipated gross proceeds from the offering and Phathom's intended use of proceeds therefrom. The inclusion of forward-looking statements should not be regarded as a representation by Phathom that any of its plans will be achieved. Actual results may differ from those set forth in this press release due to the risks and uncertainties associated with market conditions and the satisfaction of customary closing conditions related to the offering, as well as risks and uncertainties inherent in Phathom's business described in the Company's prior press releases and the Company's filings with the Securities and Exchange Commission (SEC), including under the heading "Risk Factors" in the Company's most recent Annual Report on Form 10-K and any subsequent filings with the SEC. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and Phathom undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

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