

**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): December 7, 2022

**ADMA BIOLOGICS, INC.**

(Exact name of registrant as specified in its charter)

|  |  |  |
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| Delaware<br>(State or other jurisdiction<br>of incorporation)                      | 001-36728<br>(Commission<br>File Number) | 56-2590442<br>(IRS Employer<br>Identification No.) |
| 465 State Route 17, Ramsey, New Jersey<br>(Address of principal executive offices) |  | 07446<br>(Zip Code)                                |

Registrant's telephone number, including area code: (201) 478-5552

(Former name or former address, if changed since last report.)

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

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

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

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---------------------|-------------------|---|
| Common Stock        | ADMA              | Nasdaq Global Market                      |

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

Emerging growth company

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

## **Item 1.01 Entry into a Material Definitive Agreement**

On December 7, 2022, ADMA Biologics, Inc., a Delaware corporation (the “Company”) priced its previously announced underwritten public offering pursuant to which the Company has agreed to issue and sell an aggregate of 20,979,020 shares (the “Shares”) of its common stock, par value \$0.0001 per share (the “Common Stock”), at a price to the public of \$2.86 per share, for aggregate gross proceeds of approximately \$60 million, before deducting underwriting discounts and commissions and estimated fees and expenses payable by the Company in connection with the offering (the “Offering”). Pursuant to the terms of the Underwriting Agreement (the “Underwriting Agreement”) entered into by and between the Company and Raymond James & Associates, Inc., acting as representative of the several underwriters named therein (the “Underwriters”), the Company granted to the Underwriters a 30-day option to purchase up to an additional 3,146,853 shares of Common Stock.

The closing for the Shares is expected to take place on or about December 9, 2022, subject to the satisfaction of customary closing conditions. The Shares offered by the Company in this transaction were registered under the Company’s existing shelf registration statement on Form S-3 (File No. 333-256643), which was previously filed with the Securities and Exchange Commission (the “SEC”) on May 28, 2021, amended on August 3, 2021, and declared effective by the SEC on August 3, 2021. 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 of 1933, as amended, other obligations of the parties and termination provisions.

The foregoing summary of the Underwriting Agreement does not purport to be complete and is qualified in its entirety by reference to the copy of the Underwriting Agreement filed herewith as Exhibit 1.1 and incorporated herein by reference.

## **Item 8.01 Other Events**

On December 7, 2022, the Company issued a press release announcing the pricing of the Offering. A copy of the press release is filed herewith as Exhibit 99.1 and is incorporated herein by reference.

## **Item 9.01 Exhibits**

(d) Exhibits

| <b><u>Exhibit No.</u></b> | <b><u>Description</u></b>  |
|---------------------------|--|
| <a href="#">1.1</a>       | Underwriting Agreement, by and between the Company and Raymond James & Associates, Inc., as representative of the several underwriters named therein, dated as of December 7, 2022 |
| <a href="#">99.1</a>      | Press Release of the Company, dated December 7, 2022   |
| 104                       | Cover Page Interactive Data File (embedded with the Inline XBRL document)  |

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SIGNATURE

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.

December 7, 2022

**ADMA Biologics, Inc.**

By: /s/ Brian Lenz

Name: Brian Lenz

Title: Executive Vice President and Chief Financial Officer

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20,979,020 Shares

ADMA Biologics, Inc.

Common Stock

**UNDERWRITING AGREEMENT**

St. Petersburg, Florida  
December 7, 2022

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

Ladies and Gentlemen:

ADMA Biologics, Inc., a Delaware corporation (the “Company”), proposes, subject to the terms and conditions stated herein, to issue and sell to the several Underwriters named in Schedule I hereto (the “Underwriters”), an aggregate of 20,979,020 shares of its Common Stock, par value \$0.0001 per share (the “Common Stock”). The aggregate of 20,979,020 shares to be purchased from the Company are called the “Firm Shares.” In addition, the Company has agreed to sell to the Underwriters, upon the terms and conditions stated herein, up to an additional 3,146,853 shares of Common Stock (the “Additional Shares”). The Firm Shares and the Additional Shares are collectively referred to in this Agreement as the “Shares.” Raymond James & Associates, Inc. is acting as the representative of the several Underwriters and in such capacity is referred to in this Agreement as the “Representative.”

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

1. **Registration Statement and Prospectus.** The Company has prepared and filed with the Securities and Exchange Commission (the “Commission”) in accordance with the provisions of the Securities Act of 1933, as amended (the “Act”), and the rules and regulations of the Commission thereunder (the “Rules”), a registration statement on Form S-3 (File No. 333-256643), including a base prospectus filed as part of such registration statement (the “Base Prospectus”), relating to, among other things, the Shares. Such registration statement, as amended, including the financial statements, exhibits and schedules thereto, at each time of effectiveness under the Act for purposes of Section 11 of the Act, as such section applies to the Underwriters (the “Effective Time”), including any required information deemed to be part thereof at the time of effectiveness pursuant to Rule 430B under the Act or the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (collectively, the “Exchange Act”) is called the “Registration Statement.” Any preliminary prospectus supplement to the Base Prospectus that describes the Shares and the offering thereof and is used prior to the filing of the Prospectus is called, together with the Base Prospectus, a “Preliminary Prospectus.” The term “Prospectus” shall mean the prospectus supplement relating to the Shares, together with the Base Prospectus, that is first filed pursuant to Rule 424(b) under the Act after the date and time that this Agreement is executed and delivered to the parties hereto. If the Company files another registration statement with the Commission to register a portion of the Shares pursuant to Rule 462(b) under the Act (the “Rule 462 Registration Statement”), then any reference to “Registration Statement” herein shall be deemed to include the registration statement on Form S-3 (File No. 333-256643) and the Rule 462 Registration Statement, as each such registration statement may be amended pursuant to the Act. For purposes of this Agreement, “free writing prospectus” has the meaning ascribed to it in Rule 405 under the Act, and “Issuer Free Writing Prospectus” shall mean each free writing prospectus prepared by or on behalf of the Company or used or referred to by the Company in connection with the offering of the Shares. “Time of Sale Information” shall mean the Preliminary Prospectus together with the free writing prospectuses, if any, each identified in Schedule II hereto and the information included on Schedule III hereto. All references in this Agreement to the Registration Statement, a Preliminary Prospectus, the Prospectus or the Time of Sale Information, or any amendments or supplements to any of the foregoing, shall be deemed to refer to and include any documents incorporated by reference therein, and shall include any copy thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System (“EDGAR”). Any reference in this Agreement to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Act, as of the date of the Registration Statement, such Preliminary Prospectus or the Prospectus, as the case may be, and any reference to any amendment or supplement to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any documents filed after such date under the Exchange Act that, upon filing, are incorporated by reference therein, as required by paragraph (b) of Item 12 of Form S-3. As used herein, the term “Incorporated Documents” means the documents that at the time of filing are incorporated by reference in the Registration Statement, any Preliminary Prospectus, the Prospectus or any amendment or supplement thereto.



2. Agreements to Sell and Purchase. Upon the terms and conditions set forth herein, Company hereby agrees to issue and sell an aggregate of 20,979,020 Firm Shares to the Underwriters. Upon the basis of the representations, warranties and agreements of the Company herein contained and subject to all the terms and conditions set forth herein, each Underwriter agrees, severally and not jointly, to purchase from the Company at a purchase price of \$2.6884 per Share (the "Purchase Price per Share").

The Company hereby also agrees to sell to the Underwriters, and, upon the basis of the representations, warranties and agreements of the Company herein contained and subject to all the terms and conditions set forth herein, the Underwriters shall have the right for 30 days from the date of the Prospectus to purchase from the Company up to 3,146,853 Additional Shares at the Purchase Price per Share. If any Additional Shares are to be purchased, each Underwriter, severally and not jointly, agrees to purchase the number of Additional Shares (subject to such adjustments as you may determine to avoid fractional shares) that bears the same proportion to the total number of Additional Shares to be purchased by the Underwriter as the number of Firm Shares set forth opposite the name of such Underwriter in Schedule I hereto bears to the total number of Firm Shares. The option to purchase Additional Shares may be exercised at any time within 30 days after the date of the Prospectus, but no more than once.

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

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

Each Underwriter, unless it has or shall have obtained, as the case may be, the prior written consent of the Company, has not made and will not make any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a "free writing prospectus" required to be filed by the Company with the Commission or retained by the Company under Rule 433 under the Act.

4. Delivery of the Shares and Payment Therefor. Delivery to the Underwriters of the Firm Shares and payment therefor shall be made at the offices of Raymond James & Associates, Inc., 880 Carillon Parkway, St. Petersburg, Florida 33716, at 10:00 a.m., St. Petersburg, Florida time, on December 9, 2022, or such other place, time and date not later than 1:30 p.m., St. Petersburg, Florida time, on December 9, 2022 as the Representative shall designate by notice to the Company (the time and date of such closing are called the "Closing Date"). The place of closing for the Firm Shares and the Closing Date may be varied by agreement between the Representative and the Company. The Company hereby acknowledges that circumstances under which the Representative may provide notice to postpone the Closing Date as originally scheduled include any determination by the Company or the Representative to recirculate to the public copies of an amended or supplemented Prospectus or a delay as contemplated by the provisions of Section 11 hereof.

Delivery to the Underwriters of and payment for any Additional Shares to be purchased by the Underwriters shall be made at the offices of Raymond James & Associates, Inc., 880 Carillon Parkway, St. Petersburg, Florida 33716, at 10:00 a.m., St. Petersburg, Florida time, on such date or dates (the "Additional Closing Date") (which may be the same as the Closing Date, but shall in no event be earlier than the Closing Date nor earlier than one nor later than ten business days after the giving of the notice hereinafter referred to) as shall be specified in a written notice, from the Representative on behalf of the Underwriters to the Company, of the Underwriters' determination to purchase a number, specified in such notice, of Additional Shares. Such notice may be given at any time within 30 days after the date of the Prospectus and must set forth the aggregate number of Additional Shares as to which the Underwriters are exercising the option. The place of closing for the Additional Shares and the Additional Closing Date may be varied by agreement between the Representative and the Company.

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

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

5. Covenants and Agreements of the Company.

The Company covenants and agrees with the several Underwriters as follows:

(a) The Company will use its reasonable best efforts to cause the Registration Statement and any amendments thereto to become effective, if it has not already become effective, and will advise you promptly and, if requested by you, will confirm such advice in writing (i) of the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to any Preliminary Prospectus or the Prospectus and the time and date that any post-effective amendment to the Registration Statement becomes effective, (ii) if Rule 430B under the Act is employed, when the Prospectus has been timely filed pursuant to Rule 424(b) under the Act, (iii) of the receipt of any comments of the Commission, or any request by the Commission for amendments or supplements to the Registration Statement, any Preliminary Prospectus or the Prospectus or for additional information, (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of the suspension of qualification of the Shares for offering or sale in any jurisdiction or the initiation of any proceeding for such purposes and (v) within the period of time referred to in Section 5(h) hereof, of any change in the Company's condition (financial or other), business, prospects, properties, net worth or results of operations, or of any event that comes to the attention of the Company that makes any statement made in the Registration Statement or the Prospectus (as then amended or supplemented) untrue in any material respect or that requires the making of any additions thereto or changes therein in order to make the statements therein (in the case of the Prospectus, in light of the circumstances under which they were made) not misleading in any material respect, or of the necessity to amend or supplement the Prospectus (as then amended or supplemented) to comply with the Act or any other law. If at any time the Commission shall issue any stop order suspending the effectiveness of the Registration Statement, the Company will make every commercially reasonable effort to obtain the withdrawal or lifting of such order at the earliest possible time. The Company will provide the Underwriters with copies of the form of Prospectus, in such number as the Underwriters may reasonably request, and file with the Commission such Prospectus in accordance with Rule 424(b) under the Act before the close of business on the first business day immediately following the date hereof.

(b) The Company will furnish to you, without charge, two copies of the Registration Statement as originally filed with the Commission and of each amendment thereto, including financial statements and all exhibits thereto, and will also furnish to you, without charge, such number of conformed copies of the Registration Statement as originally filed and of each amendment thereto as you may reasonably request.

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

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

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

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



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

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

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

(j) The Company will make generally available to its security holders a consolidated earnings statement (in form complying with the provisions of Rule 158), which need not be audited, covering a twelve-month period commencing after the effective date of the Registration Statement and the Rule 462 Registration Statement, if any, and ending not later than 15 months thereafter, as soon as practicable after the end of such period, which consolidated earnings statement shall satisfy the provisions of Section 11(a) of the Act.

(k) If this Agreement shall terminate or shall be terminated after execution pursuant to any provision hereof (except pursuant to a termination under Section 11 or 12 hereof) or if this Agreement shall be terminated by the Underwriters because of any inability, failure or refusal on the part of the Company to perform in all material respects any agreement herein or to comply in all material respects with any of the terms or provisions hereof or to fulfill in all material respects any of the conditions of this Agreement, the Company agrees to reimburse you and the other Underwriters for (i) all reasonable and documented costs and expenses of the Company directly related to offering and the performance of the obligations of the Company in connection with the offering, if paid by the Representative, and (ii) all reasonable and documented out-of-pocket costs and expenses related to the offering and the performance of the obligations of the Representative in connection with the offering (including, without limitation, the reasonable and documented fees and expenses of the Representative's outside counsel), subject to a maximum amount of \$50,000; *provided, however*, that, other than reasonable and documented fees of the Representative's outside counsel, the Company will not reimburse you for any individual fee or expense in excess of \$10,000 without having received the Company's prior written consent.

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

(m) For a period commencing on the date hereof and ending on the 90th day after the date of the Prospectus (the "Lock-Up Period"), the Company agrees not to, directly or indirectly, (1) offer for sale, sell, pledge or otherwise dispose of (or enter into any transaction or device that is designed to, or could be reasonably expected to, result in the disposition by any person at any time in the future of) any shares of Common Stock or securities convertible into or exchangeable for Common Stock, or sell or grant options, rights or warrants with respect to any shares of Common Stock or securities convertible into or exchangeable for Common Stock, (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of such shares of Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise, (3) file or cause to be filed a registration statement, including any amendments, with respect to the registration for the offer and sale by the Company of any shares of Common Stock or securities convertible, exercisable or exchangeable into Common Stock or any other securities of the Company (other than the filing of a registration statement pursuant to Form S-8 in connection with the Company's equity incentive plans) or (4) publicly disclose the intention to do any of the foregoing, in each case without the prior written consent of the Representative on behalf of the Underwriters, and to cause each officer and director of the Company set forth on Schedule IV hereto to furnish to the Representative, prior to the Closing Date, a letter or letters, substantially in the form of Exhibit A hereto (the "Lock-Up Agreements"). The restrictions contained in the preceding sentence shall not apply to (A) the Shares to be sold hereunder, (B) the sale and issuance of Company securities pursuant to an existing contractual relationship of the Company in effect as of the date of this Agreement, (C) the issuance of shares of Common Stock, restricted stock units, stock appreciation rights, options to purchase Common Stock or performance units pursuant to employee benefit plans, qualified stock option plans, the Company's equity incentive plans or other employee compensation plans in effect on the date of this Agreement or pursuant to currently outstanding restricted stock units, stock appreciation rights, options, warrants or rights, (D) the sale and issuance of Company securities on a pro rata basis to all holders of a class or series of outstanding securities of the Company, (E) the sale or issuance of securities in connection with an acquisition, a merger, a consolidation or sale or purchase of assets or in connection with a strategic alliance, investment, loan or credit agreement, or any amendment thereof, partnership, licensing or other joint venture or strategic transaction and (F) the conversion or exchange of options, warrants or other securities of the Company convertible into or exchangeable for Common Stock of the Company outstanding as of the date of this Agreement. For the avoidance of doubt, the Company shall not sell Common Stock pursuant to the Distribution Agreement with the Representative, dated September 3, 2021 for the Lock-Up Period.

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

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

(p) The Company will timely file with the Nasdaq Global Market (“Nasdaq”) all documents and notices required by Nasdaq of companies that have or will issue securities that are traded on Nasdaq.

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

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

(a) The Company satisfies all of the requirements of the Act for use of Form S-3 for the offering of Shares contemplated hereby. The Company was not at the time of initial filing of the Registration Statement and at the earliest time thereafter that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) of the Act) of the Common Stock, is not on the date hereof and will not be on the applicable Delivery Date an “ineligible issuer” (as defined in Rule 405 under the Act).

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

(c) The Registration Statement does not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; *provided, however*, that no representation or warranty is made as to information contained in or omitted from the Registration Statement in reliance upon and in conformity with written information furnished to the Company through the Representative by or on behalf of any Underwriter specifically for inclusion therein.

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

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

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

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

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

(i) The Registration Statement initially became effective within three years of the date hereof. If, immediately prior to the third anniversary of the initial effective date of the Registration Statement, any of the Shares remain unsold by the Underwriters, the Company will, prior to that third anniversary file, if it has not already done so, a new shelf registration statement relating to the Shares, in a form satisfactory to the Representative, will use its commercially reasonable efforts to cause such registration statement to be declared effective within 180 days after that third anniversary and will take all other action necessary or appropriate to permit the public offering and sale of the Shares to continue as contemplated in the expired Registration Statement. References herein to the Registration Statement relating to the Shares shall include such new shelf registration statement.

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

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

(l) The issued and outstanding shares of capital stock of each of the Company’s subsidiaries have been duly authorized and validly issued, are fully paid and nonassessable and are owned by the Company free and clear of any security interests, liens, encumbrances, equities or claims except (i) as provided by the Company’s Credit Agreement and Guaranty, dated as of March 23, 2022, with Hayfin Services LLP (the “Credit Agreement”), (ii) such as are described in the Time of Sale Information and the Prospectus or (iii) such as do not have or will not result in a Material Adverse Effect. As used in this Agreement, “subsidiaries” shall mean any direct and indirect subsidiaries of the Company.

(m) Except as would not have, individually or in the aggregate, a Material Adverse Effect, there are no legal or governmental proceedings pending or, to the best knowledge of the Company, threatened, against the Company or its subsidiaries or to which the Company or its subsidiaries or any of their properties are subject, that are required to be described in the Registration Statement, Time of Sale Information or the Prospectus (or any amendment or supplement thereto) but are not described as required. Except as described in the Registration Statement, the Time of Sale Information and Prospectus, there is no action, suit, inquiry, proceeding or investigation by or before any court or governmental or other regulatory or administrative agency or commission pending or, to the knowledge of the Company, threatened, against or involving the Company or its subsidiaries, which might individually or in the aggregate prevent or adversely affect the transactions contemplated by this Agreement or result in a Material Adverse Effect, nor to the Company’s knowledge, is there any basis for any such action, suit, inquiry, proceeding or investigation.

(n) The Company and its subsidiaries' information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "IT Systems") are adequate within reasonable industry standards for, and operate and perform in all material respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company and its subsidiaries have implemented and maintained commercially reasonable physical, technical and administrative controls, policies, procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data, including "Personal Data," used in connection with their businesses. "Personal Data" means (i) a natural person's name, street address, telephone number, e-mail address, photograph, social security number or tax identification number, driver's license number, passport number, credit card number, bank information, or customer or account number; (ii) any information which would qualify as "personally identifying information" under the Federal Trade Commission Act, as amended; (iii) "personal data" as defined by GDPR (as defined below); (iv) any information which would qualify as "protected health information" under the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act (collectively, "HIPAA"); and (v) any other piece of information that allows the identification of such natural person, or his or her family, or permits the collection or analysis of any data related to an identified person's health or sexual orientation. There have been no 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. The Company and its subsidiaries are 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.

(o) The Company and its subsidiaries are, and at all times in the past three years have been, in material compliance with all applicable state and federal data privacy and security laws and regulations, including without limitation HIPAA, and the Company and its subsidiaries have taken commercially reasonable actions to prepare to comply with, and since May 25, 2018, have been and currently are in compliance with, the European Union General Data Protection Regulation ("GDPR") (EU 2016/679) (collectively, the "Privacy Laws"). To facilitate compliance with the Privacy Laws, the Company and its subsidiaries have in place, comply with, and take appropriate steps reasonably designed to ensure compliance in all material respects with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling, and analysis of Personal Data (the "Policies"). The Company and its subsidiaries have at all times during the last three years made all disclosures to users or customers required by applicable laws and regulatory rules or requirements, and none of such disclosures made or contained in any Policy have, to the knowledge of the Company, been inaccurate or in violation of any applicable laws and regulatory rules or requirements in any material respect. The Company further certifies that neither it nor any subsidiary: (i) has received notice of any actual or potential liability under or relating to, or actual or potential violation of, any of the Privacy Laws, and has no knowledge of any event or condition that would reasonably be expected to result in any such notice; (ii) is currently conducting or paying for, in whole or in part, any investigation, remediation, or other corrective action pursuant to any Privacy Law; or (iii) is a party to any order, decree, or agreement that imposes any obligation or liability under any Privacy Law.

(p) The clinical trials and other studies conducted by the Company, or, to the Company's knowledge, by its collaborators or contractors on behalf of the Company (collectively, "studies"), that are described in, or the results of which are referred to in, the Registration Statement, the Time of Sale Information or the Prospectus were and, if still pending, are being conducted in all material respects in accordance with applicable Health Care Laws (as defined below), including relevant and applicable good clinical practices (GCPs), and with standard medical and scientific research procedures; each description of the results of such studies is accurate and complete in all material respects and fairly presents the data derived from such studies, and the Company and its subsidiaries have no knowledge of any other studies the results of which are materially inconsistent with, or otherwise call into question, the results described or referred to in the Registration Statement, the Time of Sale Information or the Prospectus; the Company and its subsidiaries have made all such material filings and obtained all such material approvals in relation to the studies as may be required by United States Food and Drug Administration of the U.S. Department of Health and Human Services or any committee thereof or from any other U.S. or foreign government or drug or medical device regulatory agency, or health care facility Institutional Review Board (collectively, the "Regulatory Agencies"); and neither the Company nor any of its subsidiaries has received any notice of, or correspondence from, any Regulatory Agency requiring the termination, suspension or modification of any clinical trials that are described or referred to in the Registration Statement, the Time of Sale Information or the Prospectus.

(q) There are no agreements, contracts, indentures, leases or other instruments that are required to be described in the Registration Statement, the Time of Sale Information or the Prospectus (or any amendment or supplement thereto) or to be filed as an exhibit to the Registration Statement that are not described, filed or incorporated by reference in the Registration Statement, the Time of Sale Information and the Prospectus as required by the Act. Neither the Company nor the applicable subsidiary has received notice or been made aware of breach or default by the Company under any of such contracts.

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

(s) The Company's execution and delivery of this Agreement and the performance by the Company of its obligations under this Agreement have been duly and validly authorized by the Company and this Agreement has been duly executed and delivered by the Company.

(t) None of the issuance and sale of the Shares by the Company, the execution, delivery or performance of this Agreement by the Company nor the consummation by the Company of the transactions contemplated hereby (i) requires any consent, approval, authorization or other order of or registration or filing with, any court, regulatory body, administrative agency or other governmental body, agency or official (except such as may be required for the registration of the Shares under the Act, the listing of the Shares for trading on Nasdaq and compliance with the securities or Blue Sky laws of various jurisdictions, all of which will be, or have been, effected in accordance with this Agreement and except for the Financial Industry Regulatory Authority, Inc.'s ("FINRA") clearance of the underwriting terms of the offering contemplated hereby as required under FINRA's Rules of Fair Practice), (ii) conflicts with or will conflict with or constitutes or will constitute a breach of, or a default under, the Company's certificate of incorporation or the Company's bylaws, each as amended to date, or any agreement, indenture, lease or other instrument to which the Company or any of its subsidiaries is a party or by which any of its properties may be bound, (iii) violates any statute, law, regulation, ruling, filing, judgment, injunction, order or decree applicable to the Company or any of its subsidiaries or any of their properties, or (iv) results in a breach of, or default under, or results in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its subsidiaries pursuant to, or requires the consent of any other party to, any Existing Instrument, except for such conflicts, breaches, defaults, liens, charges or encumbrances that will not, individually or in the aggregate, result in a Material Adverse Effect.

(u) Except as described in the Registration Statement, Time of Sale Information and the Prospectus, neither the Company nor any of its subsidiaries has outstanding and at the Closing Date and the Additional Closing Date, as the case may be, will have outstanding any options to purchase, or any warrants to subscribe for, or any securities or obligations convertible into, or any contracts or commitments to issue or sell, any shares of Common Stock or any such warrants or convertible securities or obligations. Except as described in the Registration Statement, Time of Sale Information and Prospectus, no holder of securities of the Company has rights to the registration of any securities of the Company as a result of or in connection with the filing of the Registration Statement or the consummation of the transactions contemplated hereby that have not been satisfied or heretofore waived in writing.



(v) CohnReznick LLP, the independent registered accounting firm that certified the financial statements of the Company (including the related notes thereto and supporting schedules) filed as part of the Registration Statement, Time of Sale Information and the Prospectus (or any amendment or supplement thereto), is an independent registered accounting firm as required by the Act and the Exchange Act.

(w) The consolidated financial statements, together with related schedules and notes, included in the Registration Statement, the Time of Sale Information and the Prospectus (and any amendment or supplement thereto), present fairly in all material respects the financial condition, results of operations, cash flows and changes in financial position of the Company on the basis stated in the Registration Statement at the respective dates or for the respective periods to which they apply; such statements and related schedules and notes have been prepared in accordance with generally accepted accounting principles consistently applied throughout the periods involved, except as disclosed therein; and the other financial and statistical information and data set forth in the Registration Statement and Prospectus (and any amendment or supplement thereto) is accurately presented and prepared on a basis consistent with such financial statements and the books and records of the Company, *provided, however* that the preliminary financial information metrics for the quarter- and year-ended December 31, 2022 included in the Time of Sale Information and the Prospectus are based on the most current information available to the Company's management, including quarter-to-date performance, and actual results may differ materially from these estimates as a result of performance during the remainder of the fourth quarter of 2022 and/or completion of normal quarter-end accounting procedures and adjustments. No other financial statements or schedules are required to be included in the Registration Statement.

(x) Except as disclosed in the Registration Statement, the Time of Sale Information and the Prospectus (or any amendment or supplement thereto), since the date of the last balance sheet included in or incorporated by reference into the Prospectus (i) neither the Company nor any of its subsidiaries has incurred any material liabilities or obligations, indirect, direct or contingent, or entered into any transaction that is not in the ordinary course of business, (ii) neither the Company nor any of its subsidiaries has sustained any material loss or interference with its business or properties from fire, flood, windstorm, accident or other calamity, whether or not covered by insurance, (iii) neither the Company nor any of its subsidiaries has paid or declared any dividends or other distributions with respect to its capital stock and the Company is not in default under the terms of any class of capital stock of the Company or any outstanding debt obligations, (iv) there has not been any change in the authorized or outstanding capital stock of the Company or any material change in the indebtedness of the Company (other than in the ordinary course of business) and (v) there has not been any material adverse change, or any development involving or that may reasonably be expected to result in a Material Adverse Effect, in the condition (financial or otherwise), business, properties, net worth, result of operations or prospects of the Company.

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

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

(aa) The Company and its subsidiaries have filed on a timely basis (giving effect to extensions) all required federal, state and foreign income and franchise tax returns and has paid or accrued all taxes shown as due thereon, and none of the Company or any subsidiary has knowledge of a tax deficiency that has been or might be asserted or threatened against it that could have a Material Adverse Effect. All tax liabilities accrued through the date hereof have been adequately provided for on the books of the Company and its subsidiaries.

(bb) Except as set forth in the Registration Statement, Time of Sale Information and the Prospectus, there are no transactions with “affiliates” (as defined in Rule 405 under the Act) or any officer, director or security holder of the Company (whether or not an affiliate) that are required by the Act to be disclosed in the Registration Statement, Time of Sale Information and the Prospectus. Additionally, no relationship, direct or indirect, exists between the Company or any of its subsidiaries on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company or any subsidiary on the other hand that is required by the Act to be disclosed in the Registration Statement, the Time of Sale Information and the Prospectus that is not so disclosed. There are no business relationships or related-party transactions involving the Company or any of its subsidiaries or any other person required to be described in the Registration Statement, the Time of Sale Information or the Prospectus that have not been described as required. The Company does not have any outstanding extension of credit, in the form of a personal loan, to or for any director or executive officer (or equivalent thereof) of the Company except for such extensions of credit as are expressly permitted by Section 13(k) of the Exchange Act.

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

(dd) Except as would not have, individually or in the aggregate, a Material Adverse Effect, or as otherwise disclosed in the Time of Sale Information and the Prospectus, each of the Company and its subsidiaries has good and marketable title to all property (real and personal) described in the Time of Sale Information and the Prospectus as being owned by it, free and clear of all liens, claims, security interests or other encumbrances except (i) as provided by the Credit Agreement, (ii) such as are described in the Time of Sale Information and the Prospectus or (iii) such as do not have or will not result in a Material Adverse Effect to the use of the property or the conduct of the business of the Company. All property (real and personal) held under lease by the Company and its subsidiaries is held by it under valid, subsisting and enforceable leases with only such exceptions as in the aggregate are not materially burdensome and do not have or result in a Material Adverse Effect to the use of the property or the conduct of the business of the Company.

(ee) Except as otherwise disclosed in the Time of Sale Information and the Prospectus, each of the Company and its subsidiaries has all permits, licenses, franchises, approvals, consents and authorizations of governmental or regulatory authorities (hereinafter “permit” or “permits”) as are necessary to own its properties and to conduct its business in the manner described in the Time of Sale Information and the Prospectus, subject to such qualifications as may be set forth in the Time of Sale Information and the Prospectus, except where the failure to have obtained any such permit has not had and will not have a Material Adverse Effect; each of the Company and its subsidiaries has operated and is operating its business in material compliance with and not in material violation of all of its obligations with respect to each such permit and no event has occurred that allows, or after notice or lapse of time would allow, revocation or termination of any such permit or result in any other material impairment of the rights of any such permit, subject in each case to such qualification as may be set forth in the Time of Sale Information and the Prospectus; and, except as described in the Time of Sale Information and the Prospectus, such permits contain no restrictions that are materially burdensome to the Company or any of its subsidiaries.

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

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

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

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

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

(kk) None of the Company or any of its subsidiaries or affiliates, or any officer or employee thereof, or, to the Company's knowledge, any director, agent or representative of the Company or of any of its subsidiaries or affiliates, has taken or will take any action in furtherance of an offer, payment, promise to pay, or authorization or approval of the payment, giving or receipt of money, property, gifts or anything else of value, directly or indirectly, to any government official (including any officer or employee of a government or government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office) ("Government Official") in order to influence official action, or to any person in violation of any applicable anti-corruption laws; (ii) the Company and each of its subsidiaries and affiliates have conducted their businesses in compliance with applicable anti-corruption laws and have instituted and maintained and will continue to maintain policies and procedures reasonably designed to promote and achieve compliance with such laws and with the representations and warranties contained herein; and (iii) neither the Company nor any of its subsidiaries will use, directly or indirectly, the proceeds of the offering in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any person in violation of any applicable anti-corruption laws. Neither the Company nor any of its subsidiaries nor, to the Company's knowledge, any employee or agent of the Company or any subsidiary, has made any contribution or other payment to any official of, or candidate for, any federal, state or foreign office in violation of any law or of the character required to be disclosed in the Registration Statement, the Time of Sale Information or the Prospectus.

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

(mm) The operations of each of the Company and any subsidiary are and have been conducted at all times in material compliance with the money laundering statutes of applicable jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any applicable governmental agency (collectively, the “Money Laundering Laws”) and to the Company’s and its Subsidiary’s knowledge, no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company and/or any Subsidiary with respect to the Money Laundering Laws is pending or threatened.

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

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

(pp) Each of the Company and its subsidiaries owns and has full right, title and interest in and to, or has valid licenses to use, each material trade name, trademark, service mark, patent, copyright, approval, trade secret and other similar rights (collectively “Intellectual Property”) under which the Company and its subsidiaries conduct all or any material part of its business, and the Company has not created any lien or encumbrance on, or granted any right or license with respect to, any such Intellectual Property except where the failure to own or obtain a license or right to use any such Intellectual Property would not, individually or in the aggregate, have a Material Adverse Effect; there is no material claim pending against the Company or its subsidiaries with respect to any Intellectual Property and the Company and its subsidiaries have not received notice or otherwise become aware that any Intellectual Property that it uses or has used in the conduct of its business infringes upon or conflicts with the rights of any third party. Neither the Company nor any of its subsidiaries has become aware that any material Intellectual Property that it uses or has used in the conduct of its business infringes upon or conflicts with the rights of any third party.

(qq) The Company has procured Lock-Up Agreements, substantially in the form of Exhibit A attached hereto, from each of the Company’s senior executive officers and directors named in Schedule IV hereto.

(rr) To the Company’s knowledge, there are no affiliations with FINRA among the Company’s officers, directors or, to the best of the knowledge of the Company, any ten percent (10%) or greater stockholder of the Company, except as set forth in the Registration Statement or otherwise disclosed in writing to the Representative.

(ss) The Company and each of its subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which it is engaged; and neither the Company nor any of its subsidiaries has reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a comparable cost.

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

(uu) Except as described in the Registration Statement, the Time of Sale Information and the Prospectus, the Company and its subsidiaries are, and at all times have been, in material compliance with all Health Care Laws applicable to their business and operations. For purposes of this Agreement, “Health Care Laws” means: (i) the Federal Food, Drug, and Cosmetic Act (21 U.S.C. Section 301 et seq.), the Public Health Service Act (42 U.S.C. Section 201 et seq.), and the regulations promulgated thereunder; (ii) all applicable federal, state, local and foreign health care fraud and abuse laws, including, without limitation, the Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the Civil False Claims Act (31 U.S.C. Section 3729 et seq.), the criminal false statements law (42 U.S.C. Section 1320a-7b(a)), 18 U.S.C. Sections 286 and 287, the health care fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 (“HIPAA”) (42 U.S.C. Section 1320d et seq.), the Stark Law (42 U.S.C. Section 1395nn), the civil monetary penalties law (42 U.S.C. Section 1320a-7a), the exclusion law (42 U.S.C. Section 1320a-7), the Physician Payments Sunshine Act (42 U.S.C. Section 1320-7h), and applicable laws governing government funded or sponsored healthcare programs; (iii) HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.); (iv) the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010; (v) licensure, quality, safety and accreditation requirements under applicable federal, state, local or foreign laws or regulatory bodies; and (vi) all other local, state, federal, national, supranational and foreign laws, relating to the regulation of the Company or its subsidiaries, and (vii) the directives and regulations promulgated pursuant to such statutes and any state or non-U.S. counterpart thereof. Neither the Company nor any of its subsidiaries has received written notice of any material claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any court or arbitrator or governmental or regulatory authority or third party alleging that any product operation or activity is in violation of any Health Care Laws nor, to the Company’s knowledge, is any such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action threatened. The Company and its subsidiaries have filed, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Health Care Laws, and all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and accurate on the date filed in all material respects (or were corrected or supplemented by a subsequent submission). Neither the Company nor any of its subsidiaries is a party to any corporate integrity agreements, monitoring agreements, consent decrees, settlement orders, or similar agreements with or imposed by any governmental or regulatory authority. Additionally, neither the Company, any of its subsidiaries nor any of their respective employees, officers, directors, or agents has been excluded, suspended or debarred from participation in any U.S. federal health care program or human clinical research or, to the knowledge of the Company, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion.

(vv) The Company (a) has not alone engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications with the consent of the Representative with entities that are qualified institutional buyers within the meaning of Rule 144A under the Act or institutions that are accredited investors within the meaning of Rule 501 under the Act and (b) has not authorized anyone other than the Representative to engage in Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications (as defined herein). “Testing-the-Waters Communication” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Act. “Written Testing-the-Waters Communication” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Act.



7. **Expenses.** Whether or not the transactions contemplated hereby are consummated or this Agreement becomes effective or is terminated, the Company agrees to pay or cause to be paid the following: (i) the fees, disbursements and expenses of the Company’s counsel and accountants in connection with the registration of the sale of Shares under the Act and all other expenses in connection with the preparation, printing and filing of the Registration Statement and the Prospectus and amendments and supplements thereto and the mailing and delivering of copies thereof and of any Preliminary Prospectus to the Underwriters and dealers; (ii) the printing and delivery (including postage, air freight charges and charges for counting and packaging) of such copies of the Registration Statement, the Prospectus, each Preliminary Prospectus, the Time of Sale Information, the Blue Sky Memorandum, the Master Agreement Among Underwriters, this Agreement, the Selected Dealers Agreement and all amendments or supplements to any of them as may be reasonably requested for use in connection with the offering and sale of the Shares; (iii) consistent with the provisions of Section 5(i), all expenses in connection with the qualification of the Shares for offering and sale under state securities laws or Blue Sky laws; (iv) the filing fees incident to securing any required review by FINRA of the fairness of the terms of the sale of the Shares, which when taken together with all fees and expenses pursuant to clause (iii) above, shall not exceed \$10,000; (v) the fees and expenses associated with including the Shares on Nasdaq; (vi) the cost of preparing stock certificates representing the Shares; (vii) the costs and charges of any transfer agent, registrar or depository; (viii) the cost of the tax stamps, if any, in connection with the issuance and delivery of the Shares to the respective Underwriters; (ix) all other fees, costs and expenses referred to in Part II, Item 14 of the Registration Statement; (x) the costs and expenses relating to investor presentations on any “roadshow” undertaken in connection with the marketing of the offering contemplated hereby; and (xi) upon the closing of the sale of the Shares, (a) all reasonable and documented costs and expenses of the Company directly related to offering and the performance of the obligations of the Company in connection with the offering, if paid by the Representative, and (b) all reasonable and documented out-of-pocket costs and expenses related to the offering and the performance of the obligations of the Representative in connection with the offering (including, without limitation, the reasonable and documented fees and expenses of the Representative’s outside counsel) to the Underwriters in an amount not to exceed \$85,000; provided, however, that, other than reasonable and documented fees of Representative’s outside counsel, the Company will not reimburse you for any individual fee or expense in excess of \$10,000 without having received the Company’s prior written consent. Except as provided in this Section 7 and in Section 8 hereof, the Underwriters shall pay their own expenses, including the fees and disbursements of their counsel. In addition, in the event that the proposed offering is terminated for the reasons set forth in Section 5(k) hereof, the Company agrees to reimburse the Underwriters as provided in Section 5(k).

8. Indemnification and Contribution. Subject to the limitations in this paragraph below, the Company agrees to indemnify and hold harmless you and each other Underwriter, the directors, officers, employees and agents of each Underwriter, and each person, if any, who controls any Underwriter within the meaning of Section 15 of the Act or Section 20 of the Exchange Act from and against any and all losses, claims, damages, liabilities and expenses, including reasonable costs of investigation and attorneys' fees and expenses (collectively, "Damages") arising out of or based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, in the Registration Statement, the Time of Sale Information, any Issuer Free Writing Prospectus or the Prospectus or in any amendment or supplement thereto, or in any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Shares ("Marketing Materials"), including any roadshow or investor presentations made to investors by the Company (whether in person or electronically) or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein (in the case of the Prospectus, in light of the circumstances under which they were made) not misleading, except to the extent that any such Damages arise out of or are based upon an untrue statement or omission or alleged untrue statement or omission that has been made therein or omitted therefrom in reliance upon and in conformity with the information furnished in writing to the Company by or on behalf of any Underwriter through you, expressly for use in connection therewith or (ii) any inaccuracy in or breach of the representations and warranties of the Company contained herein or any failure of the Company to perform its obligations hereunder or under law. This indemnification shall be in addition to any liability that the Company may otherwise have.

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

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

Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, its directors, its officers who sign the Registration Statement and any person who controls the Company within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, to the same extent as the foregoing several indemnity from the Company to each Underwriter, but only with respect to information furnished in writing by or on behalf of such Underwriter through you expressly for use in the Registration Statement, the Prospectus, the Time of Sale Information, any Issuer Free Writing Prospectus or any Preliminary Prospectus, or any amendment or supplement thereto. If any action or claim shall be brought or asserted against the Company, any of its directors, any of its officers or any such controlling person based on the Registration Statement, the Prospectus, the Time of Sale Information or any Preliminary Prospectus, or any amendment or supplement thereto, and in respect of which indemnity may be sought against any Underwriter pursuant to this paragraph, such Underwriter shall have the rights and duties given to the Company by the immediately preceding paragraph (except that if the Company shall have assumed the defense thereof such Underwriter shall not be required to do so, but may employ separate counsel therein and participate in the defense thereof, but the fees and expenses of such counsel shall be at such Underwriter’s expense), and the Company, its directors, any such officers and any such controlling persons, shall have the rights and duties given to the Underwriters by the immediately preceding paragraph.

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

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

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

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

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

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

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

(b) Subsequent to the respective dates as of which information is given in the Registration Statement, the Time of Sale Information, or the Prospectus, (i) there shall not have been any change in the capital stock of the Company or any material change in the indebtedness (other than in the ordinary course of business) of the Company, (ii) except as set forth or contemplated by the Registration Statement, the Time of Sale Information or the Prospectus, no material oral or written agreement or other transaction shall have been entered into by the Company that is not in the ordinary course of business or that could reasonably be expected to result in a material reduction in the future earnings of the Company, (iii) no loss or damage (whether or not insured) to the property of the Company shall have been sustained that had or could reasonably be expected to have a Material Adverse Effect, (iv) no legal or governmental action, suit or proceeding affecting the Company or any of its properties that is material to the Company or that affects or could reasonably be expected to affect the transactions contemplated by this Agreement shall have been instituted or threatened and (v) there shall not have been any material change in the condition (financial or otherwise), business, management, or results of operations of the Company or its subsidiaries that makes it impractical or inadvisable in your judgment to proceed with the public offering or purchase of the Shares as contemplated hereby.

(c) You shall have received on the Closing Date (and the Additional Closing Date, if any) an opinion of Morgan, Lewis & Bockius LLP, counsel for the Company, in form and substance reasonably satisfactory to you.

(d) You shall have received on the Closing Date or Additional Closing Date, as the case may be, an opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo P.C., as counsel for the Underwriters, dated the Closing Date or Additional Closing Date, as the case may be, with respect to the matters as you may reasonably request, and the Company and its counsel shall have furnished to your counsel such documents as they may reasonably request for the purpose of enabling them to pass upon such matters.

(e) You shall have received on the Closing Date or Additional Closing Date, as the case may be, an opinion of Casimir Jones, S.C., as intellectual property counsel for the Company, in form and substance reasonable satisfactory to you.

(f) You shall have received a letter addressed to you and dated the date hereof and the Closing Date or the Additional Closing Date, as the case may be, from the firm of CohnReznick LLP, independent registered public accounting firm, substantially in the form heretofore approved by you.

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

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

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

(j) At or prior to the Closing Date, you shall have received the written Lock-Up Agreements from each of the persons identified on Schedule IV hereto.

(k) The Company shall have filed a Notification: Listing of Additional Shares with Nasdaq to satisfy the Company's notification obligation under Nasdaq Listing Rule 5250(e)(2), subject only to official notice of review completion.

(l) You shall have received on the Closing Date or the Additional Closing Date, as the case may be, a Secretary's Certificate of the Company.

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

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

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

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

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



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

13. Information Furnished by the Underwriters. The Company acknowledges that the fifth paragraph, the eleventh paragraph and the paragraphs under the subheading "Notice to Non-U.S. Investors" under the caption "Underwriting" in any Preliminary Prospectus, constitute the only information furnished by or on behalf of the Underwriters through you or on your behalf as such information is referred to in Sections 6.1(c), 6.1(e), 6.1(f) and 8 hereof.

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

- (i) if to the Company, its agent for service as such agent's address appears on the cover page of the Registration Statement

with a copy to:

Morgan, Lewis & Bockius LLP  
502 Carnegie Center  
Princeton, New Jersey 08540  
Attention: David C. Schwartz, Esq.

(ii) if to the Underwriters:

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

with a copy to:

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo P.C.  
919 Third Avenue  
New York, New York 10022  
Attention: Ivan K. Blumenthal, Esq.

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

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

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

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

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

16. No Fiduciary Duty. Notwithstanding any pre-existing relationship, advisory or otherwise, between the parties or any oral representations or assurances previously or subsequently made by any of the Underwriters, the Company acknowledges and agrees that (i) nothing herein shall create a fiduciary or agency relationship between the Company, on the one hand, and the Underwriters, on the other hand; (ii) the Underwriters have been retained solely to act as underwriters and are not acting as advisors, expert or otherwise, to either the Company in connection with this offering, the sale of the Shares or any other services the Underwriters may be deemed to be providing hereunder, including, without limitation, with respect to the public offering price of the Shares; (iii) the relationship between the Company, on the one hand, and the Underwriters, on the other hand, is entirely and solely commercial, and the price of the Shares was established by the Company and the Underwriters based on discussions and arms' length negotiations and the Company understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (iv) any duties and obligations that the Underwriters may have to the Company shall be limited to those duties and obligations specifically stated herein; and (v) notwithstanding anything in this Agreement to the contrary, the Company acknowledges that the Underwriters may have financial interests in the success of the Offering that are not limited to the difference between the price to the public and the purchase price paid to the Company for the shares and such interests may differ from the interests of the Company, and the Underwriters have no obligation to disclose, or account to the Company for any benefit they may derive from such additional financial interests. The Company hereby waives and releases, to the fullest extent permitted by the applicable law, any claims it may have against the Underwriters with respect to any breach or alleged breach of fiduciary duty and agrees that the Underwriters shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company or any of its stockholders, directors, employees or creditors.

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

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

Very truly yours,

ADMA BIOLOGICS, INC.

**/s/ Adam S. Grossman**

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Adam S. Grossman  
President and Chief Executive Officer

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

RAYMOND JAMES & ASSOCIATES, INC.

By: **/s/ Andrea J Lanham**

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Authorized Representative  
Andrea J Lanham  
VP, GEIB Equity Syndicate

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## SCHEDULE I

| Name                             | Number of Firm Shares to<br>the Public |
|----------------------------------|--|
| Raymond James & Associates, Inc. | 8,391,608                              |
| Cantor Fitzgerald & Co.          | 6,293,706                              |
| Mizuho Securities USA LLC        | 6,293,706                              |
| <b>Total</b>                     | <b>20,979,020</b>                      |

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**SCHEDULE II**

Issuer Free Writing Prospectus

None.

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## **SCHEDULE III**

### **Pricing Terms**

1. The Company is selling 20,979,020 shares of Common Stock.
  2. The Company has granted an option to the Underwriters, severally and not jointly, to purchase up to an additional 3,146,853 shares of Common Stock.
  3. The public offering price per share for the Shares shall be \$2.86.
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## SCHEDULE IV

### Persons Subject to Lock-up

**Directors:**

Martha J. Demski  
Steven A. Elms  
Jerrold B. Grossman  
Bryant E. Fong  
Lawrence P. Guiheen  
Young T. Kwon

**Officers:**

Adam S. Grossman  
Brian Lenz

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**EXHIBIT A**

**Form of Lock-up Agreement**

\_\_\_\_\_, 2022

ADMA Biologics, Inc.  
465 State Route 17  
Ramsey, NJ 07446

RAYMOND JAMES & ASSOCIATES, INC.  
As Representative of the Several Underwriters  
c/o Raymond James & Associates, Inc.  
880 Carillon Parkway  
St. Petersburg, FL 33716

**Re: ADMA Biologics, Inc. (the "Company") - Restriction on Security Sales**

Ladies and Gentlemen:

This letter agreement is delivered to you pursuant to the Underwriting Agreement (the "Underwriting Agreement") to be entered into by the Company, as issuer, and Raymond James & Associates, Inc., the representative (the "Representative") of certain underwriters (the "Underwriters") to be named therein. Upon the terms and subject to the conditions of the Underwriting Agreement, the Underwriters intend to effect a public offering of common stock, par value \$0.0001 per share, of the Company (the "Shares"), as described in and contemplated by the registration statement of the Company on Form S-3, File No. 333-256643 (the "Registration Statement"), as amended, and filed with the Securities and Exchange Commission on May 28, 2021 (the "Offering").

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

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

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

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

- (1) the common stock being offered in the prospectus included in the Registration Statement;
  - (2) sales of common stock or other Company Securities acquired in open market transactions after the completion of the Offering;
  - (3) transfers of common stock or any security convertible into common stock as a bona fide gift or gifts, or by will or intestacy upon the death of the undersigned;
  - (4) transfers by will or estate or intestate succession to the undersigned's family, or to a trust, the beneficiaries of which are exclusively the undersigned or members of the undersigned's family, or to a charitable organization;
  - (5) transfers pursuant to a court or regulatory agency order, a qualified domestic relations order or in connection with a divorce settlement;
  - (6) transfers or distributions, if the undersigned is not a natural person, of common stock or any security convertible into common stock to limited or general partners, members, subsidiaries, stockholders or affiliates of the undersigned to the extent the undersigned is a partnership, limited liability company, corporation or other business entity;
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- (7) the grant or exercise of any options to purchase common stock or the vesting, award, delivery or settlement of common stock and the receipt by the undersigned from the Company of common stock thereunder, in each case pursuant to the Company's stock option or equity-based compensation plans, and sales of such common stock that are issued upon exercise of such options or warrants or such vesting, award, delivery, settlement or receipt in order to pay or provide for any taxes due on such exercise, vesting, delivery, settlement or receipt or to pay the exercise price therefor; or
- (8) a written plan meeting the requirements of Rule 10b5-1 under the Exchange Act for the transfer of common stock that does not in any case provide for the transfer of common stock during the Lock-Up Period;

*provided*, that (i) in the case of any transfer, distribution or issuance pursuant to clause (3), (4), (5), or (6), each donee, heir, legatee, trustee, distributee, transferee or recipient shall sign and deliver (or has signed and delivered) a lock up letter substantially in the form of this letter agreement for the balance of the Lock-Up Period, and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required or voluntarily made by or on behalf of the undersigned or the Company regarding the establishment of a plan pursuant to clause (8), such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the Lock-Up Period.

It is understood that, if the Underwriting Agreement (other than the provisions thereof that survive termination) shall terminate or be terminated prior to payment for and delivery of the Shares, the undersigned shall be released from the obligations under this letter agreement.

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

Very truly yours,

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Signature of Securityholder

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Printed Name of Person Signing

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

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## ADMA Biologics Announces Pricing of Public Offering for \$60 Million of Common Stock

RAMSEY, N.J. and BOCA RATON, Fla., December 7, 2022 (GLOBE NEWSWIRE) -- ADMA Biologics, Inc. (Nasdaq:ADMA) ("ADMA" or the "Company"), an end-to-end commercial biopharmaceutical company dedicated to manufacturing, marketing and developing specialty plasma-derived biologics, today priced its previously announced underwritten public offering of 20,979,020 shares of its common stock at a public offering price of \$2.86 per share, resulting in gross proceeds of approximately \$60 million before deducting underwriting discounts and commissions and other estimated offering expenses.

The offering is expected to close on December 9, 2022, subject to the satisfaction of customary closing conditions. The Company has also granted the underwriters a 30-day option to purchase up to 3,146,853 million additional shares of common stock at the public offering price before deducting underwriting discounts and commissions.

ADMA intends to use the net proceeds from this offering to accelerate commercialization and production activities, complete plasma center buildout and obtain FDA approvals, to conclude post FDA marketing approval research and development projects, and for working capital, capital expenditures and for general corporate purposes.

Raymond James & Associates, Inc., Cantor Fitzgerald & Co. and Mizuho Securities USA LLC are acting as joint book-running managers of the offering.

The securities described above are being offered by the Company pursuant to a "shelf" registration statement on Form S-3 (File No. 333-256643) previously filed with the Securities and Exchange Commission ("SEC") and declared effective by the SEC on August 3, 2021. A preliminary prospectus supplement, including the accompanying prospectus, relating to the offering was filed with the SEC on December 6, 2022 and is available on the SEC's website at [www.sec.gov](http://www.sec.gov). The final prospectus supplement relating to the offering will be filed with the SEC and will also be available on the SEC's website at [www.sec.gov](http://www.sec.gov). Electronic copies of the final prospectus supplement and the accompanying prospectus relating to the offering may be obtained, when available, from Raymond James & Associates, Inc., Attention: Equity Syndicate, 880 Carillon Parkway, St. Petersburg, Florida 33716, or by telephone at (800) 248-8863, or e-mail at [prospectus@raymondjames.com](mailto:prospectus@raymondjames.com), or from Cantor Fitzgerald & Co., Attn: Capital Markets, 499 Park Avenue, 4th Floor, New York, New York 10022 or by email at [prospectus@cantor.com](mailto:prospectus@cantor.com), or from Mizuho Securities USA LLC, Attention: Equity Capital Markets, 1271 Avenue of the Americas, 3rd Floor, New York, NY 10020, by email at [US-ECM@us.mizuho-sc.com](mailto:US-ECM@us.mizuho-sc.com), or by telephone at (212) 205-7600.

Before investing in the offering, you should read in their entirety the preliminary prospectus supplement and its accompanying prospectus and the other documents that the Company has filed with the SEC that are incorporated by reference in the prospectus supplement and its accompanying prospectus, which provide more information about the Company and the offering.

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

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## **About ADMA Biologics, Inc. (ADMA)**

ADMA Biologics is an end-to-end commercial biopharmaceutical company dedicated to manufacturing, marketing and developing specialty plasma-derived biologics for the treatment of immunodeficient patients at risk for infection and others at risk for certain infectious diseases. ADMA currently manufactures and markets three United States Food and Drug Administration (FDA)-approved plasma-derived biologics for the treatment of immune deficiencies and the prevention of certain infectious diseases: BIVIGAM® (immune globulin intravenous, human) for the treatment of primary humoral immunodeficiency (PI); ASCENIV™ (immune globulin intravenous, human – sIra 10% liquid) for the treatment of PI; and NABI-HB® (hepatitis B immune globulin, human) to provide enhanced immunity against the hepatitis B virus. ADMA manufactures its immune globulin products at its FDA-licensed plasma fractionation and purification facility located in Boca Raton, Florida. Through its ADMA BioCenters subsidiary, ADMA also operates as an FDA-approved source plasma collector in the U.S., which provides a portion of its blood plasma for the manufacture of its products. ADMA's mission is to manufacture, market and develop specialty plasma-derived, human immune globulins targeted to niche patient populations for the treatment and prevention of certain infectious diseases and management of immune compromised patient populations who suffer from an underlying immune deficiency, or who may be immune compromised for other medical reasons. ADMA has received U.S. Patents: 9,107,906, 9,714,283, 9,815,886, 9,969,793 and 10,259,865 and European Patent No. 3375789, among others, related to certain aspects of its products and product candidates. For more information, please visit [www.admabiologics.com](http://www.admabiologics.com).

## **Cautionary Note Regarding Forward-Looking Statements**

*This press release contains “forward-looking statements” pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, about ADMA Biologics, Inc. (“we,” “our” or the “Company”). Forward-looking statements include, without limitation, any statement that may predict, forecast, indicate, or imply future results, performance or achievements, and may contain such words as “estimate,” “project,” “intend,” “forecast,” “target,” “anticipate,” “plan,” “planning,” “expect,” “believe,” “will,” “is likely,” “will likely,” “should,” “could,” “would,” “may,” or, in each case, their negative, or words or expressions of similar meaning. These forward-looking statements include statements about the offering and ADMA's intended use of proceeds generated from the offering. Actual events or results may differ materially from those described in this document due to a number of important factors. Current and prospective security holders are cautioned that there also can be no assurance that the forward-looking statements included in this press release will prove to be accurate. Except to the extent required by applicable laws or rules, ADMA does not undertake any obligation to update any forward-looking statements or to announce revisions to any of the forward-looking statements. Forward-looking statements are subject to many risks, uncertainties and other factors that could cause our actual results, and the timing of certain events, to differ materially from any future results expressed or implied by the forward-looking statements, including, but not limited to, risks and uncertainties related to market conditions and satisfaction of customary closing conditions related to the public offering and the risks and uncertainties described in our filings with the U.S. Securities and Exchange Commission, including our most recent reports on Form 10-K, 10-Q and 8-K, and any amendments thereto.*

## **COMPANY CONTACT:**

Skyler Bloom  
Senior Director, Corporate Strategy and Business Development | 201-478-5552 | [sbloom@admabio.com](mailto:sbloom@admabio.com)

## **INVESTOR RELATIONS CONTACT:**

Michelle Pappanastos  
Senior Managing Director, Argot Partners | 212-600-1902 | [michelle@argotpartners.com](mailto:michelle@argotpartners.com)

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