

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

FORM 8-K

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

Date of Report (Date of earliest event reported): February 6, 2020

ADMA BIOLOGICS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)	001-36728 (Commission File Number)	56-2590442 (IRS Employer Identification No.)
465 State Route 17, Ramsey, New Jersey (Address of principal executive offices)		07446 (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, par value \$0.0001 per share	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 February 6, 2020, ADMA Biologics, Inc., a Delaware corporation (the “Company”), announced that it has priced its previously announced underwritten public offering pursuant to which the Company has agreed to issue and sell an aggregate of 23,500,000 shares (the “Firm Shares”) of its common stock, par value \$0.0001 per share (the “Common Stock”), at a price to the public of \$3.50 per share, for aggregate gross proceeds of approximately \$82,250,000, 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 among the Company and the underwriters, for which Morgan Stanley & Co. LLC and Jefferies LLC are acting as Representatives (the “Underwriters”), the Company granted to the Underwriters a 30-day option to purchase up to an additional 3,525,000 shares of Common Stock (the “Option Shares”). The closing for the Firm Shares is expected to take place on or about February 11, 2020, subject to the satisfaction of customary closing conditions. The Firm Shares and the Option Shares offered by the Company in this transaction were registered under the Company’s existing shelf registration statement on Form S-3 (File No. 333-234107), which was declared effective by the Securities and Exchange Commission on October 15, 2019. 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.

A copy of the form of Underwriting Agreement, dated February 6, 2020, is filed herewith as Exhibit 1.1 and incorporated herein by reference. Copies of the related press releases of the Company dated February 6, 2020 and February 6, 2020 announcing the Offering and the pricing of the Offering are filed herewith as Exhibits 99.1 and 99.2, respectively, and are incorporated herein by reference. The foregoing description of the Offering by the Company and the documents related thereto, is qualified in its entirety by reference to such exhibits.

Item 9.01 Exhibits.

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
1.1	<u>Underwriting Agreement by and among the Company and the Underwriters dated as of February 6, 2020.</u>
99.1	<u>Press Release of the Company, dated February 6, 2020.</u>
99.2	<u>Press Release of the Company, dated February 6, 2020.</u>

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.

February 7, 2020

ADMA Biologics, Inc.

By: /s/ Brian Lenz

Name: Brian Lenz

Title: Executive Vice President and Chief Financial
Officer

23,500,000 Shares

ADMA BIOLOGICS, INC.

COMMON STOCK, \$0.0001 PAR VALUE PER SHARE

UNDERWRITING AGREEMENT

February 6, 2020

Morgan Stanley & Co. LLC
Jefferies LLC

c/o Morgan Stanley & Co. LLC
1585 Broadway
New York, New York 10036

Ladies and Gentlemen:

ADMA Biologics, Inc., a Delaware corporation (the “**Company**”), proposes to issue and sell to the several Underwriters named in Schedule I hereto (the “**Underwriters**”) 23,500,000 shares (the “**Firm Shares**”) of its common stock, \$0.0001 par value per share (the “**Common Stock**”). The Company also proposes to issue and sell to the several Underwriters not more than an additional 3,525,000 shares of Common Stock (the “**Additional Shares**”), if and to the extent that Morgan Stanley & Co. LLC (“**Morgan Stanley**”) and Jefferies LLC, as representatives of the Underwriters (“**Representatives**”), shall have determined to exercise, on behalf of the Underwriters, the right to purchase such Additional Shares granted to the Underwriters in Section 2 hereof. The Firm Shares and the Additional Shares are hereinafter collectively referred to as the “**Shares.**”

The Company has filed with the Securities and Exchange Commission (the “**Commission**”) a registration statement on Form S-3 (File No. 333-234107), including a preliminary prospectus, relating to the Shares. The registration statement as amended at the time of effectiveness, including the information (if any) deemed to be part of the registration statement at the time of effectiveness pursuant to Rule 430A under the Securities Act of 1933, as amended (the “**Securities Act**”), is hereinafter referred to as the “**Registration Statement**,” the prospectus in the form first used to confirm sales of Shares (or in the form first made available to the Underwriters by the Company to meet requests of purchasers pursuant to Rule 173 under the Securities Act) is hereinafter referred to as the “**Prospectus.**” If the Company has filed an abbreviated registration statement to register additional shares of Common Stock pursuant to Rule 462(b) under the Securities Act (a “**Rule 462 Registration Statement**”), then any reference herein to the term “**Registration Statement**” shall be deemed to include such Rule 462 Registration Statement.

For purposes of this Agreement, “**free writing prospectus**” has the meaning set forth in Rule 405 under the Securities Act, “preliminary prospectus” shall mean each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted information pursuant to Rule 430A under the Securities Act that was used after such effectiveness and prior to the execution and delivery of this Agreement, “**Time of Sale Prospectus**” means the preliminary prospectus contained in the Registration Statement at the time of its effectiveness together with the documents and pricing information set forth in Schedule II hereto, and “**Road Show**” means a “road show” (as defined in Rule 433 under the Securities Act) relating to the offering of the Shares contemplated hereby that is a “written communication” (as defined in Rule 405 under the Securities Act). As used herein, the terms “Registration Statement,” “preliminary prospectus,” “Time of Sale Prospectus” and “Prospectus” shall include the documents, if any, incorporated by reference therein as of the date hereof. The terms “**supplement**,” “**amendment**” and “**amend**” as used herein with respect to the Registration Statement, the Prospectus, the Time of Sale Prospectus or the Prospectus shall include all documents subsequently filed by the Company with the Commission pursuant to the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), that are deemed to be incorporated by reference therein.

1. *Representations and Warranties.* The Company hereby represents, warrants and covenants to each Underwriter, as of the date of this Agreement, as of the Closing Date (as hereinafter defined) and as of each Option Closing Date (as hereinafter defined), if any, as follows:

(a) The Company satisfies all of the requirements of the Securities Act for use of Form S-3 for the offering of the 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 Securities Act) of 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 Securities 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 Securities Act. Each preliminary prospectus 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 Representatives by or on behalf of any Underwriter specifically for inclusion therein, it being understood and agreed that the only such information furnished by or on behalf of the Underwriters through the Representatives consists of the information described as such in Section 8(b) hereof.

(d) 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 (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 necessary in order to make the statements therein, in the light of the circumstances under 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 necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(e) The Prospectus will not contain an untrue statement of a material fact or omit to state a material fact necessary in order 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 Representatives by or on behalf of any Underwriter specifically for inclusion therein, it being understood and agreed that the only such information furnished by or on behalf of the Underwriters through the Representatives consists of the information described as such in Section 8(b) hereof.

(f) The Time of Sale Prospectus does not, and will not at each time of sale of the Shares, contain an untrue statement of a material fact or omit to state a material fact necessary in order 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 Prospectus in reliance upon and in conformity with written information furnished to the Company through the Representatives by or on behalf of any Underwriter specifically for inclusion therein, it being understood and agreed that the only such information furnished by or on behalf of the Underwriters through the Representatives consists of the information described as such in Section 8(b) hereof.

(g) Each free writing prospectus (including, without limitation, any road show that is a free writing prospectus under Rule 433 under the Securities Act) and each individual Testing-the-Waters Communication, when considered together with the Time of Sale Prospectus at each time of sale of the Shares, did not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. “**Testing-the-Waters Communication**” means any communication with potential investors undertaken in reliance upon Section 5(d) or Rule 163B of the Securities Act.

(h) Each free writing prospectus conformed or will conform in all material respects to the requirements of the Securities Act on the date of first use, and in reliance upon representations from the Representatives, the Company has complied with all prospectus delivery and any filing requirements applicable to such free writing prospectus pursuant to the Securities Act. The Company has not made any offer relating to the Shares that would constitute a free writing prospectus without the prior written consent of the Representatives. The Company has retained in accordance with the Securities Act all free writing prospectuses that were not required to be filed pursuant to the Securities Act. The Company has taken all actions necessary so that any Road Show in connection with the offering of the Shares will not be required to be filed pursuant to the Securities 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 Representatives, will use its best 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 have been, and as of the Closing Date and any Option 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 Prospectus 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 Prospectus and the Prospectus (or any amendment or supplement thereto); and the delivery of book-entry positions 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.

(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 Prospectus 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, results of operations or prospects 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, other than liens granted in connection with the Company's Credit Agreement, dated as of February 11, 2019, with Perceptive Credit Holdings II, LP, as amended on May 3, 2019 (the "**Credit Agreement**"). 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 Prospectus or the Prospectus (or any amendment or supplement thereto) but are not disclosed as required. Except as described in the Registration Statement, Time of Sale Prospectus or 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) There are no agreements, contracts, indentures, leases or other instruments that are required to be described in the Registration Statement, the Time of Sale Prospectus 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 Prospectus and the Prospectus as required by the Securities 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.

(o) 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.

(p) 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.

(q) 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 Securities Act, the listing of the Shares for trading on the Nasdaq Global Market and compliance with the securities or Blue Sky laws of various jurisdictions, all of which will be, or have been, effected in accordance with this Agreement and except for FINRA's clearance of the underwriting terms of the offering contemplated hereby as required under FINRA's Rules of Fair Practice), (ii) conflicts with or will conflict with or constitutes or will constitute a breach of, or a default under, the Company's certificate of incorporation, as amended to date, (iii) conflicts with or will conflict with or constitutes or will constitute a breach of, or a default under, the Company's bylaws, 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, (iv) 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 (v) 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, in the case of clauses (i), (iii), (iv) and (v), for such conflicts, breaches, defaults, liens, charges or encumbrances in that will not, individually or in the aggregate, result in a Material Adverse Effect.

(r) Except as described in the Registration Statement, Time of Sale Prospectus and the Prospectus, neither the Company nor any of its subsidiaries has outstanding and at the Closing Date and any Option 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 Common Stock or any such warrants or convertible securities or obligations. Except as described in the Registration Statement, Time of Sale Prospectus 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.

(s) CohnReznick LLP, the certified public accountants who have 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 Prospectus and the Prospectus (or any amendment or supplement thereto), are independent public accountants as required by the Securities Act and the Exchange Act.

(t) The financial statements, together with related schedules and notes, included in the Registration Statement, the Time of Sale Prospectus 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. No other financial statements or schedules are required to be included in the Registration Statement.

(u) 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.

(v) The Common Stock (including the Firm Shares) is registered pursuant to Section 12(b) of the Exchange Act and listed on the Nasdaq Global Market, 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 the Nasdaq Global Market, nor has the Company received any notification that the Commission or the Nasdaq is contemplating terminating such registration or listing.

(w) 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 Securities 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.

(x) The Company and each of its subsidiaries have filed, or have applied for an extension of time to file, all tax returns required to be filed (other than certain state or local tax returns, as to which the failure to file, individually or in the aggregate, would not have a Material Adverse Effect), which filed returns are complete and correct, and neither the Company nor any subsidiary is in default in the payment of any taxes that were payable pursuant to said filed returns or any assessments with respect thereto; unless the same has been contested in good-faith. All deficiencies asserted as a result of any federal, state, local or foreign tax audits have been paid or finally settled and no issue has been raised in any such audit that, by application of the same or similar principles, reasonably could be expected to result in a proposed deficiency for any other period not so audited. There are no outstanding agreements or waivers extending the statutory period of limitation applicable to any federal, state, local or foreign tax return for any period. On the Closing Date and any Option Closing Date, as the case may be, all stock transfer and other taxes that are required to be paid in connection with the sale of the shares to be sold by the Company to the Underwriters will have been fully paid by the Company and all laws imposing such taxes will have been complied with.

(y) Except as set forth in the Registration Statement, Time of Sale Prospectus and the Prospectus, there are no transactions with “affiliates” (as defined in Rule 405 under the Securities Act) or any officer, director or security holder of the Company (whether or not an affiliate) that are required by the Securities Act to be disclosed in the Registration Statement, Time of Sale Prospectus 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 Securities Act to be disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus that is not so disclosed.

(z) 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.

(aa) Except as would not have, individually or in the aggregate, a Material Adverse Effect, or as otherwise disclosed in the Time of Sale Prospectus 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 Prospectus 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 Prospectus 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.

(bb) Except as otherwise disclosed in the Time of Sale Prospectus 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 Prospectus and the Prospectus, subject to such qualifications as may be set forth in the Time of Sale Prospectus 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 Prospectus and the Prospectus; and, except as described in the Time of Sale Prospectus and the Prospectus, such permits contain no restrictions that are materially burdensome to the Company or any of its subsidiaries.

(cc) 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 Prospectus 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 Prospectus 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 Prospectus and the Prospectus; and all disclosures contained in the Time of Sale Prospectus 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 Securities 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. 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.

(dd) 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.

(ee) 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 auditors and the Audit Committee of the Board of Directors of the Company have been advised of (i) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which 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 Prospectus 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 the Nasdaq Stock Market promulgated thereunder.

(ff) 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.

(gg) The Company has not, prior to the date hereof, made any offer or sale of securities which could be “integrated” for purposes of the Securities Act with the offer and sale of the Common Stock pursuant to the Registration Statement, the Time of Sale Prospectus and the Prospectus; and except as disclosed in the Registration Statement, Time of Sale Prospectus 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 Securities Act, other than 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 Prospectus and the Prospectus.

(hh) (i) 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.

(ii) The operations of the Company and each of its subsidiaries are and have been conducted at all times in material compliance with all applicable financial recordkeeping and reporting requirements, including those of the Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), and the applicable anti-money laundering statutes of jurisdictions where the Company and each of its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “**Anti-Money Laundering Laws**”), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(jj) (i) None of the Company, any of its subsidiaries, or any officer or employee thereof, or, to the Company's knowledge, any director, agent, affiliate or representative of the Company or any of its subsidiaries, is an individual or entity ("**Person**") that is, or is owned or controlled by one or more Persons that are:

(A) the subject of any sanctions administered or enforced by the U.S. Department of the Treasury's Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty's Treasury, or other relevant sanctions authority (collectively, "**Sanctions**"), or

(B) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Crimea, Cuba, Iran, North Korea and Syria).

(ii) 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:

(A) to fund or facilitate any activities or business of or with any Person or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions; or

(B) in any other manner that will result in a violation of Sanctions by any Person (including any Person participating in the offering, whether as underwriter, advisor, investor or otherwise).

(iii) For the past five years, the Company and each of its subsidiaries have not knowingly engaged in, are not now knowingly engaged in any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(kk) 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.

(ll) 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.

(mm) 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.

(nn) The Company has procured Lock-Up Agreements, substantially in the form of Exhibit A attached hereto, from each of the parties listed on Exhibit B attached hereto.

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

(pp) 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.

(qq) 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 Internal Revenue Code of 1986, as amended (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.

(rr) 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 Prospectus or the Prospectus that have not been described as required.

(ss) Neither the Company nor any of its subsidiaries nor, to the best of 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 Prospectus or the Prospectus.

(tt) Except pursuant to this Agreement, there is no broker, finder or other party that is entitled to receive from the Company any brokerage or finder's fee or other fee or commission as a result of any transactions contemplated by this Agreement.

(uu) Each financial or operational projection or other "forward-looking statement" (as defined by Section 27A of the Securities Act or Section 21E of the Exchange Act) contained in the Registration Statement, the Time of Sale Prospectus or the Prospectus (i) was so included by the Company in good faith and with reasonable basis after due consideration by the Company of the underlying assumptions, estimates and other applicable facts and circumstances and (ii) is accompanied by meaningful cautionary statements identifying those factors that could cause actual results to differ materially from those in such forward-looking statement. No such statement was made with the knowledge of an executive officer or director of the Company that it was false or misleading.

(vv) 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.

(ww) 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.

(xx) 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.

(yy) 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 Prospectus or the Prospectus were and, if still pending, are being conducted in all material respects in accordance with applicable Health Care Laws (as defined in Section 1(z)), 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 Prospectuses 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 Prospectus or the Prospectus.

(zz) Except as described in the Registration Statement, the Time of Sale Prospectus 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 1395mm), 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.

2. *Agreements to Sell and Purchase.* The Company hereby agrees to sell to the several Underwriters, and each Underwriter, upon the basis of the representations and warranties herein contained, but subject to the terms and conditions hereinafter stated, agrees, severally and not jointly, to purchase from the Company the respective numbers of Firm Shares set forth in Schedule I hereto opposite its name at \$3.29 a share (the “**Purchase Price**”).

On the basis of the representations and warranties contained in this Agreement, and subject to its terms and conditions, the Company agrees to sell to the Underwriters the Additional Shares, and the Underwriters shall have the right to purchase, severally and not jointly, up to 3,525,000 Additional Shares at the Purchase Price, provided, however, that the amount paid by the Underwriters for any Additional Shares shall be reduced by an amount per share equal to any dividends declared by the Company and payable on the Firm Shares but not payable on such Additional Shares. The Representatives may exercise this right on behalf of the Underwriters in whole or from time to time in part by giving written notice not later than 30 days after the date of this Agreement. Any exercise notice shall specify the number of Additional Shares to be purchased by the Underwriters and the date on which such shares are to be purchased. Each purchase date must be at least two business days after the written notice is given and may not be earlier than the closing date for the Firm Shares or later than ten business days after the date of such notice. Additional Shares may be purchased as provided in Section 4 hereof solely for the purpose of covering sales of shares in excess of the number of the Firm Shares. On each day, if any, that Additional Shares are to be purchased (an “**Option Closing Date**”), each Underwriter agrees, severally and not jointly, to purchase the number of Additional Shares (subject to such adjustments to eliminate fractional shares as the Representatives may determine) that bears the same proportion to the total number of Additional Shares to be purchased on such Option Closing Date as the number of Firm Shares set forth in Schedule I hereto opposite the name of such Underwriter bears to the total number of Firm Shares.

3. *Terms of Public Offering.* The Company is advised by the Representatives that the Underwriters propose to make a public offering of their respective portions of the Shares as soon after the Registration Statement and this Agreement have become effective as in Representatives’ judgment is advisable. The Company is further advised by the Representatives that the Shares are to be offered to the public initially at \$3.50 a share (the “**Public Offering Price**”) and to certain dealers selected by the Representatives at a price that represents a concession not in excess of \$0.126 a share under the Public Offering Price.

4. *Payment and Delivery.* Payment for the Firm Shares shall be made to the Company in Federal or other funds immediately available in New York City against delivery of such Firm Shares for the respective accounts of the several Underwriters at 10:00 a.m., New York City time, on February 11, 2020 or at such other time on the same or such other date, not later than February 19, 2020, as shall be designated in writing by the Representatives. The time and date of such payment are hereinafter referred to as the “**Closing Date.**”

Payment for any Additional Shares shall be made to the Company in Federal or other funds immediately available in New York City against delivery of such Additional Shares for the respective accounts of the several Underwriters at 10:00 a.m., New York City time, on the date specified in the corresponding notice described in Section 2 or at such other time on the same or on such other date, in any event not later than March 20, 2020, as shall be designated in writing by the Representatives.

The Firm Shares and Additional Shares shall be registered in such names and in such denominations as the Representatives shall request not later than one full business day prior to the Closing Date or the applicable Option Closing Date, as the case may be. The Firm Shares and Additional Shares shall be delivered to the Representatives on the Closing Date or an Option Closing Date, as the case may be, for the respective accounts of the several Underwriters, with any transfer taxes payable in connection with the transfer of the Shares to the Underwriters duly paid, against payment of the Purchase Price therefor.

5. *Conditions to the Underwriters' Obligations.*

The several obligations of the Underwriters are subject to the following further conditions:

(a) Subsequent to the execution and delivery of this Agreement and prior to the Closing Date:

(i) no order suspending the effectiveness of the Registration Statement shall be in effect, and no proceeding for such purpose or pursuant to Section 8A under the Securities Act shall be pending before or threatened by the Commission;

(ii) there shall not have occurred any downgrading, nor shall any notice have been given of any intended or potential downgrading or of any review for a possible change that does not indicate the direction of the possible change, in the rating accorded any of the securities of the Company or any of its subsidiaries by any "nationally recognized statistical rating organization," as such term is defined in Section 3(a)(62) of the Exchange Act; and

(iii) there shall not have occurred any change, or any development involving a prospective change, in the condition, financial or otherwise, or in the earnings, business or operations of the Company and its subsidiaries, taken as a whole, from that set forth in the Time of Sale Prospectus that, in the Representatives' judgment, is material and adverse and that makes it, in the Representatives' judgment, impracticable to market the Shares on the terms and in the manner contemplated in the Time of Sale Prospectus.

(b) The Underwriters shall have received on the Closing Date a certificate, dated the Closing Date and signed by an executive officer of the Company, to the effect set forth in Sections 5(a)(i) and 5(a)(ii) above and to the effect that the representations and warranties of the Company contained in this Agreement are true and correct as of the Closing Date and that the Company has complied with all of the agreements and satisfied all of the conditions on its part to be performed or satisfied hereunder on or before the Closing Date.

The officer signing and delivering such certificate may rely upon the best of his or her knowledge as to proceedings threatened.

(c) The Underwriters shall have received on the Closing Date an opinion and negative assurance letter of Morgan, Lewis & Bockius LLP, outside counsel for the Company, dated the Closing Date, in form and substance satisfactory to the Representatives.

(d) The Underwriters shall have received on the Closing Date an opinion and negative assurance letter of Casimir Jones, S.C., counsel for the Company with respect to intellectual property, dated the Closing Date, in form and substance satisfactory to the Representatives.

(e) The Underwriters shall have received on the Closing Date an opinion and negative assurance letter of Wilmer Cutler Pickering Hale and Dorr LLP, counsel for the Underwriters, dated the Closing Date, in form and substance satisfactory to the Underwriters.

(f) The Underwriters shall have received, on each of the date hereof and the Closing Date, a letter dated the date hereof or the Closing Date, as the case may be, in form and substance satisfactory to the Underwriters, from CohnReznick LLP, independent public accountants, containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement, the Time of Sale Prospectus and the Prospectus; *provided* that the letter delivered on the Closing Date shall use a "cut-off date" not earlier than the date hereof.

(g) The "lock-up" agreements, each substantially in the form of Exhibit A hereto, between the Representatives and certain shareholders, officers and directors of the Company relating to restrictions on sales and certain other dispositions of shares of Common Stock or certain other securities, delivered to the Representatives on or before the date hereof, shall be in full force and effect on the Closing Date.

(h) The Representatives shall have received, on each of the date hereof and the Closing Date, a certificate dated the date hereof or the Closing Date, as the case may be, in form and substance satisfactory to the Representatives, from the chief financial officer of the Company on behalf of the Company as to the accuracy of certain financial and other information included in the Registration Statement, the Time of Sale Prospectus and the Prospectus;

(i) The several obligations of the Underwriters to purchase Additional Shares hereunder are subject to the delivery to the Representatives on the applicable Option Closing Date of the following:

(i) a certificate, dated the Option Closing Date and signed by an executive officer of the Company, confirming that the certificate delivered on the Closing Date pursuant to Section 5(b) hereof remains true and correct as of such Option Closing Date;

(ii) an opinion and negative assurance letter of Morgan, Lewis & Bockius LLP, outside counsel for the Company, dated the Option Closing Date, relating to the Additional Shares to be purchased on such Option Closing Date and otherwise to the same effect as the opinion required by Section 5(c) hereof;

(iii) an opinion and negative assurance letter of Casimir Jones, S.C., counsel for the Company with respect to intellectual property, dated the Option Closing Date, relating to the Additional Shares to be purchased on such Option Closing Date and otherwise to the same effect as the opinion required by Section 5(d) hereof;

(iv) an opinion and negative assurance letter of Wilmer Cutler Pickering Hale and Dorr LLP, counsel for the Underwriters, dated the Option Closing Date, relating to the Additional Shares to be purchased on such Option Closing Date and otherwise to the same effect as the opinion required by Section 5(e) hereof;

(v) a letter dated the Option Closing Date, in form and substance satisfactory to the Underwriters, from CohnReznick LLP, independent public accountants, substantially in the same form and substance as the letter furnished to the Underwriters pursuant to Section 5(f) hereof; *provided* that the letter delivered on the Option Closing Date shall use a "cut-off date" not earlier than two business days prior to such Option Closing Date;

(vi) a certificate from the chief financial officer of the Company on behalf of the Company, dated the Option Closing Date, substantially in the same form and substance as the certificate required by Section 5(h) hereof; and

(vii) such other documents as the Representatives may reasonably request with respect to the good standing of the Company, the due authorization and issuance of the Additional Shares to be sold on such Option Closing Date and other matters related to the issuance of such Additional Shares.

6. *Covenants of the Company.* The Company covenants with each Underwriter as follows:

(a) To furnish to the Representatives, without charge, three signed copies of the Registration Statement (including exhibits thereto and documents incorporated by reference) and for delivery to each other Underwriter a conformed copy of the Registration Statement (without exhibits thereto but including documents incorporated by reference) and to furnish to the Representatives in New York City, without charge, prior to 10:00 a.m. New York City time on the business day next succeeding the date of this Agreement and during the period mentioned in Section 6(e) or 6(f) below, as many copies of the Time of Sale Prospectus, the Prospectus, any documents incorporated by reference therein and any supplements and amendments thereto or to the Registration Statement as the Representatives may reasonably request.

(b) Before amending or supplementing the Registration Statement, the Time of Sale Prospectus or the Prospectus, to furnish to the Representatives a copy of each such proposed amendment or supplement and not to file any such proposed amendment or supplement to which the Representatives reasonably object, and to file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(c) To furnish to the Representatives a copy of each proposed free writing prospectus to be prepared by or on behalf of, used by, or referred to by the Company and not to use or refer to any proposed free writing prospectus to which the Representatives reasonably object.

(d) Not to take any action that would result in an Underwriter or the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of the Underwriter that the Underwriter otherwise would not have been required to file thereunder.

(e) If the Time of Sale Prospectus is being used to solicit offers to buy the Shares at a time when the Prospectus is not yet available to prospective purchasers and any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Time of Sale Prospectus in order to make the statements therein, in the light of the circumstances, not misleading, or if any event shall occur or condition exist as a result of which the Time of Sale Prospectus conflicts with the information contained in the Registration Statement then on file, or if, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Time of Sale Prospectus to comply with applicable law, forthwith to prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, either amendments or supplements to the Time of Sale Prospectus so that the statements in the Time of Sale Prospectus as so amended or supplemented will not, in the light of the circumstances when the Time of Sale Prospectus is delivered to a prospective purchaser, be misleading or so that the Time of Sale Prospectus, as amended or supplemented, will no longer conflict with the Registration Statement, or so that the Time of Sale Prospectus, as amended or supplemented, will comply with applicable law.

(f) If, during such period after the first date of the public offering of the Shares as in the opinion of counsel for the Underwriters the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is required by law to be delivered in connection with sales by an Underwriter or dealer, any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Prospectus in order to make the statements therein, in the light of the circumstances when the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is delivered to a purchaser, not misleading, or if, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Prospectus to comply with applicable law, forthwith to prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to the dealers (whose names and addresses the Representatives will furnish to the Company) to which Shares may have been sold by the Representatives on behalf of the Underwriters and to any other dealers upon request, either amendments or supplements to the Prospectus so that the statements in the Prospectus as so amended or supplemented will not, in the light of the circumstances when the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is delivered to a purchaser, be misleading or so that the Prospectus, as amended or supplemented, will comply with applicable law.

(g) To endeavor to qualify the Shares for offer and sale under the securities or Blue Sky laws of such jurisdictions as the Representatives shall reasonably request; *provided, however*, that nothing contained herein shall require the Company to qualify to do business in any jurisdiction, to execute a general consent to service of process in any jurisdiction, or to subject itself to taxation in any jurisdiction in which it is not otherwise subject.

(h) To make generally available to the Company's security holders and to the Representatives as soon as practicable an earnings statement (which need not be audited) covering a period of at least twelve months beginning with the first fiscal quarter of the Company occurring after the date of this Agreement, which shall satisfy the provisions of Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder; *provided*, that the Company will be deemed to have furnished such statements to its security holders to the extent it is filed on the Commission's Electronic Data Gathering, Analysis and Retrieval System.

(i) Whether or not the transactions contemplated in this Agreement are consummated or this Agreement is terminated, to pay or cause to be paid all expenses incident to the performance of its obligations under this Agreement, including: (i) the fees, disbursements and expenses of the Company's counsel and the Company's accountants in connection with the registration and delivery of the Shares under the Securities Act and all other fees or expenses in connection with the preparation and filing of the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, the Prospectus, any free writing prospectus prepared by or on behalf of, used by, or referred to by the Company and amendments and supplements to any of the foregoing, including all printing costs associated therewith, and the mailing and delivering of copies thereof to the Underwriters and dealers, in the quantities hereinabove specified, (ii) all costs and expenses related to the transfer and delivery of the Shares to the Underwriters, including any transfer or other taxes payable thereon, (iii) the cost of printing or producing any Blue Sky or Legal Investment memorandum in connection with the offer and sale of the Shares under state securities laws and all expenses in connection with the qualification of the Shares for offer and sale under state securities laws as provided in Section 6(g) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection with such qualification and in connection with the Blue Sky or Legal Investment memorandum (*provided*, that, the amount payable by the Company with respect to fees and disbursements of counsel for the Underwriters pursuant to this subsection (iii) shall not exceed \$10,000), (iv) all filing fees and the reasonable fees and disbursements of counsel to the Underwriters incurred in connection with the review and qualification of the offering of the Shares by the Financial Industry Regulatory Authority (*provided*, that, the amount payable by the Company with respect to fees and disbursements of counsel for the Underwriters pursuant to this subsection (iv) shall not exceed \$30,000), (v) all costs and expenses incident to listing the Shares on the Nasdaq Global Market, (vi) the cost of printing certificates representing the Shares, (vii) the costs and charges of any transfer agent, registrar or depositary, (viii) the costs and expenses of the Company relating to investor presentations on any "road show" undertaken in connection with the marketing of the offering of the Shares, including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, travel and lodging expenses of the representatives and officers of the Company and any such consultants, and the cost of any aircraft chartered in connection with the road show, (ix) the document production charges and expenses associated with printing this Agreement and (x) all other costs and expenses incident to the performance of the obligations of the Company hereunder for which provision is not otherwise made in this Section. It is understood, however, that except as provided in this Section, Section 8 entitled "Indemnity and Contribution" and the last paragraph of Section 10 below, the Underwriters will pay all of their costs and expenses, including fees and disbursements of their counsel, stock transfer taxes payable on resale of any of the Shares by them and any advertising expenses connected with any offers they may make.

(j) If at any time following the distribution of any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act there occurred or occurs an event or development as a result of which such Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, the Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

The Company also covenants with each Underwriter that, without the prior written consent of the Representatives on behalf of the Underwriters, it will not, and will not publicly disclose an intention to, during the period ending 90 days after the date of the Prospectus (the “**Restricted Period**”), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, or (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause 1 or 2 above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise or (3) file any registration statement with the Commission relating to the offering of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock. The restrictions contained in the foregoing sentence shall not apply to (A) the Shares to be sold hereunder, (B) the issuance by the Company of shares of Common Stock upon the exercise of an option or warrant or the conversion of a security outstanding on the date hereof as described in each of the Time of Sale Prospectus and Prospectus, (C) the filing by the Company of a registration statement with the Commission on Form S-8 with respect to employee benefit plans issued under stock plans described in the Time of Sale Prospectus, (D) facilitating the establishment of a trading plan on behalf of a shareholder, officer or director of the Company pursuant to Rule 10b5-1 under the Exchange Act, for the transfer of shares of Common Stock, *provided* that to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by the Company regarding the establishment of such plan, 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 Restricted Period, (E) the grant or issuance by the Company, or exercise or settlement (in cash, shares of Common Stock or otherwise), of options, restricted stock awards, restricted stock units or any other type of equity award to employees, officers, directors, advisors or consultants of the Company pursuant to employee benefit plans described in the Time of Sale Prospectus or pursuant to any qualifying inducement award under Nasdaq rules, or (F) the sale or issuance of or entry into an agreement to sell or issue shares of Common Stock or securities convertible into or exercisable for Common Stock in connection with any (i) merger, (ii) acquisition of securities, businesses, property or any other assets, (iii) joint ventures, (iv) strategic alliances, (v) equipment leasing arrangements or (vi) debt financing, provided that the aggregate number of shares of Common Stock or securities convertible into or exercisable for Common Stock (on an as-converted or as exercised basis, as the case may be) that the Company may sell or issue or agree to sell or issue pursuant to this clause (F) shall not exceed 5% of the total number of shares of the Company’s Common Stock issued and outstanding immediately following the completion of the transactions contemplated by this Agreement, and provided further, that each recipient of shares of Common Stock or securities convertible into or exercisable for Common Stock pursuant to clauses (E) or (F) shall execute a lock-up agreement substantially in the form of Exhibit A hereto.

7. *Covenants of the Underwriters.* Each Underwriter, severally and not jointly, covenants with the Company not to take any action that would result in the Company being required to file with the Commission under Rule 433(d) a free writing prospectus prepared by or on behalf of such Underwriter that otherwise would not be required to be filed by the Company thereunder, but for the action of the Underwriter.

8. *Indemnity and Contribution.* (a) The Company agrees to indemnify and hold harmless each Underwriter, each person, if any, who controls any Underwriter within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act and each affiliate of any Underwriter within the meaning of Rule 405 under the Securities Act from and against any and all losses, claims, damages and liabilities (including, without limitation, any documented legal or other expenses reasonably incurred in connection with defending or investigating any such action or claim) that arise out of, or are based upon, any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or any amendment thereof, any preliminary prospectus, the Time of Sale Prospectus or any amendment or supplement thereto, any issuer free writing prospectus as defined in Rule 433(h) under the Securities Act, any Company information that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act, any “road show” as defined in Rule 433(h) under the Securities Act (a “road show”), the Prospectus or any amendment or supplement thereto, or any Testing-the-Waters Communication, or arise out of, or are based upon, any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as such losses, claims, damages or liabilities arise out of, or are based upon, any such untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with any information relating to any Underwriter furnished to the Company in writing by such Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information furnished by the Underwriters through the Representatives consists of the information described as such in paragraph (b) below.

(b) Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, its directors, its officers who sign the Registration Statement and each person, if any, who controls the Company within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act to the same extent as the foregoing indemnity from the Company to such Underwriter, but only with reference to information relating to such Underwriter furnished to the Company in writing by such Underwriter through the Representatives expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any issuer free writing prospectus, road show, or the Prospectus or any amendment or supplement thereto, which the parties hereto agree are limited to the third, eleventh, thirteenth, fourteenth and fifteenth paragraphs of the "Underwriters" section of the Prospectus.

(c) In case any proceeding (including any governmental investigation) shall be instituted involving any person in respect of which indemnity may be sought pursuant to Section 8(a) or 8(b), such person (the "**indemnified party**") shall promptly notify the person against whom such indemnity may be sought (the "**indemnifying party**") in writing and the indemnifying party, upon request of the indemnified party, shall retain counsel reasonably satisfactory to the indemnified party to represent the indemnified party and any others the indemnifying party may designate in such proceeding and shall pay the fees and disbursements of such counsel related to such proceeding. In any such proceeding, any indemnified party shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such indemnified party unless (i) the indemnifying party and the indemnified party shall have mutually agreed to the retention of such counsel or (ii) the named parties to any such proceeding (including any impleaded parties) include both the indemnifying party and the indemnified party and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. It is understood that the indemnifying party shall not, in respect of the legal expenses of any indemnified party in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the fees and expenses of more than one separate firm (in addition to any local counsel) for all such indemnified parties and that all such fees and expenses shall be reimbursed as they are incurred. Such firm shall be designated in writing by the Representatives, in the case of parties indemnified pursuant to Section 8(a), and by the Company, in the case of parties indemnified pursuant to Section 8(b). The indemnifying party shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party from and against any loss or liability by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by the second and third sentences of this paragraph, the indemnifying party agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement of any pending or threatened proceeding in respect of which any indemnified party is or could have been a party and indemnity could have been sought hereunder by such indemnified party, unless such settlement includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such proceeding.

(d) To the extent the indemnification provided for in Section 8(a) or 8(b) is unavailable to an indemnified party or insufficient in respect of any losses, claims, damages or liabilities referred to therein, then each indemnifying party under such paragraph, in lieu of indemnifying such indemnified party thereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (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 of the Shares or (ii) if the allocation provided by clause 8(d)(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 8(d)(i) above but also the relative fault of the Company on the one hand and of the Underwriters on the other hand in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other hand in connection with the offering of the Shares shall be deemed to be in the same respective proportions as the net proceeds from the offering of the Shares (before deducting expenses) received by the Company and the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover of the Prospectus, bear to the aggregate Public Offering Price of the Shares. 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 or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Underwriters' respective obligations to contribute pursuant to this Section 8 are several in proportion to the respective number of Shares they have purchased hereunder, and not joint.

(e) The Company and the Underwriters agree that it would not be just or equitable if contribution pursuant to this Section 8 were determined by *pro rata* allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take account of the equitable considerations referred to in Section 8(d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages and liabilities referred to in Section 8(d) 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 by which the total price at which the Shares underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The remedies provided for in this Section 8 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any indemnified party at law or in equity.

(f) The indemnity and contribution provisions contained in this Section 8 and the representations, warranties and other statements of the Company contained in this Agreement shall remain operative and in full force and effect regardless of (i) any termination of this Agreement, (ii) any investigation made by or on behalf of any Underwriter, any person controlling any Underwriter or any affiliate of any Underwriter or by or on behalf of the Company, its officers or directors or any person controlling the Company and (iii) acceptance of and payment for any of the Shares.

9. *Termination.* The Underwriters may terminate this Agreement by notice given by the Representatives to the Company, if, after the execution and delivery of this Agreement and prior to or on the Closing Date or any Option Closing Date, as the case may be, (i) trading generally shall have been suspended or materially limited on, or by, as the case may be, any of the New York Stock Exchange, the NYSE American, the Nasdaq Global Market, the Chicago Board of Options Exchange, the Chicago Mercantile Exchange or the Chicago Board of Trade, (ii) trading of any securities of the Company shall have been suspended on any exchange or in any over-the-counter market, (iii) a material disruption in securities settlement, payment or clearance services in the United States shall have occurred, (iv) any moratorium on commercial banking activities shall have been declared by Federal or New York State authorities or (v) there shall have occurred any outbreak or escalation of hostilities, or any change in financial markets or any calamity or crisis that, in the Representatives' judgment, is material and adverse and which, singly or together with any other event specified in this clause (v), makes it, in the Representatives' judgment, impracticable or inadvisable to proceed with the offer, sale or delivery of the Shares on the terms and in the manner contemplated in the Time of Sale Prospectus or the Prospectus.

10. *Effectiveness; Defaulting Underwriters.* This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

If, on the Closing Date or an Option Closing Date, as the case may be, any one or more of the Underwriters shall fail or refuse to purchase Shares that it has or they have agreed to purchase hereunder on such date, and the aggregate number of Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase is not more than one-tenth of the aggregate number of the Shares to be purchased on such date, the other Underwriters shall be obligated severally in the proportions that the number of Firm Shares set forth opposite their respective names in Schedule I bears to the aggregate number of Firm Shares set forth opposite the names of all such non-defaulting Underwriters, or in such other proportions as the Representatives may specify, to purchase the Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date; *provided* that in no event shall the number of Shares that any Underwriter has agreed to purchase pursuant to this Agreement be increased pursuant to this Section 10 by an amount in excess of one-ninth of such number of Shares without the written consent of such Underwriter. If, on the Closing Date, 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 to be purchased on such date, and arrangements satisfactory to the Representatives and the Company for the purchase of such Firm Shares are not made within 36 hours after such default, this Agreement shall terminate without liability on the part of any non-defaulting Underwriter or the Company. In any such case either the Representatives or the Company shall have the right to postpone the Closing Date, but in no event for longer than seven days, in order that the required changes, if any, in the Registration Statement, in the Time of Sale Prospectus, in the Prospectus or in any other documents or arrangements may be effected. If, on an Option Closing Date, any Underwriter or Underwriters shall fail or refuse to purchase Additional Shares and the aggregate number of Additional Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Additional Shares to be purchased on such Option Closing Date, the non-defaulting Underwriters shall have the option to (i) terminate their obligation hereunder to purchase the Additional Shares to be sold on such Option Closing Date or (ii) purchase not less than the number of Additional Shares that such non-defaulting Underwriters would have been obligated to purchase in the absence of such default. Any action taken under this paragraph shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

If this Agreement shall be terminated by the Underwriters, or any of them, because of any failure or refusal on the part of the Company to comply with the terms or to fulfill any of the conditions of this Agreement, or if for any reason the Company shall be unable to perform its obligations under this Agreement, the Company will reimburse the Underwriters or such Underwriters as have so terminated this Agreement with respect to themselves, severally, for all out-of-pocket expenses (including the fees and disbursements of their counsel) reasonably incurred by such Underwriters in connection with this Agreement or the offering contemplated hereunder.

11. *Entire Agreement.* (a) This Agreement, together with any contemporaneous written agreements and any prior written agreements (to the extent not superseded by this Agreement) that relate to the offering of the Shares, represents the entire agreement between the Company and the Underwriters with respect to the preparation of any preliminary prospectus, the Time of Sale Prospectus, the Prospectus, the conduct of the offering, and the purchase and sale of the Shares.

(b) The Company acknowledges that in connection with the offering of the Shares: (i) the Underwriters have acted at arm's length, are not agents of, and owe no fiduciary duties to, the Company or any other person, (ii) the Underwriters owe the Company only those duties and obligations set forth in this Agreement, any contemporaneous written agreements and prior written agreements (to the extent not superseded by this Agreement), if any, and (iii) the Underwriters may have interests that differ from those of the Company. The Company waives to the full extent permitted by applicable law any claims it may have against the Underwriters arising from an alleged breach of fiduciary duty in connection with the offering of the Shares.

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

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

For purposes of this Section a "**BHC Act Affiliate**" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k). "**Covered Entity**" means any of the following: (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b). "**Default Right**" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable. "**U.S. Special Resolution Regime**" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

13. *Counterparts.* This Agreement may be signed in two or more counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

14. *Applicable Law.* This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York.

15. *Headings.* The headings of the sections of this Agreement have been inserted for convenience of reference only and shall not be deemed a part of this Agreement.

16. *Notices.* All communications hereunder shall be in writing and effective only upon receipt and if to the Underwriters shall be delivered, mailed or sent to Morgan Stanley at 1585 Broadway, New York, New York 10036, Attention: Equity Syndicate Desk, with a copy to the Legal Department; and to Jefferies at 520 Madison Avenue, New York, New York 10022, Attention: General Counsel and if to the Company shall be delivered, mailed or sent to ADMA Biologics, Inc. 465 State Route 17, Ramsey, New Jersey 07466, Attention: Adam S. Grossman.

Very truly yours,

ADMA BIOLOGICS, INC.

By: /s/ Adam Grossman

Name: Adam Grossman

Title: President and Chief Executive Officer

Accepted as of the date hereof

Morgan Stanley & Co. LLC
Jefferies LLC

Acting severally on behalf of themselves and the several
Underwriters named in Schedule I hereto.

By: Morgan Stanley & Co. LLC

By: /s/ Christine Ha
Name: Christine Ha
Title: Executive Director

By: Jefferies LLC

By: /s/ Kevin J. Sheridan
Name: Kevin J. Sheridan
Title: Managing Director

[Signature Page to Underwriting Agreement]

SCHEDULE I

Underwriter	Number of Firm Shares To Be Purchased
Morgan Stanley & Co. LLC	12,925,000
Jefferies LLC	9,400,000
Oppenheimer & Co. Inc.	1,175,000
<hr/>	
Total:	23,500,000

Time of Sale Prospectus

Preliminary Prospectus Supplement dated February 6, 2020 and Prospectus dated October 15, 2019

Free writing prospectuses filed by the Company under Rule 433(d) of the Securities Act: None.

Pricing Information:

Number of Firm Shares purchased by the Underwriters from the Company: 23,500,000

Number of Additional Shares to be sold by the Company at the option of the Underwriters: 3,525,000

Initial price per share to the public: \$3.50

[FORM OF LOCK-UP AGREEMENT]

February [•], 2020

Morgan Stanley & Co. LLC
Jefferies LLC

c/o Morgan Stanley & Co. LLC
1585 Broadway
New York, NY 10036

Ladies and Gentlemen:

The undersigned understands that Morgan Stanley & Co. LLC (“**Morgan Stanley**”) and Jefferies LLC (“**Jefferies**”) propose to enter into an Underwriting Agreement (the “**Underwriting Agreement**”) with ADMA Biologics, Inc., a Delaware corporation (the “**Company**”), providing for the public offering (the “**Public Offering**”) by the several Underwriters, including Morgan Stanley and Jefferies (the “**Underwriters**”), of shares (the “**Shares**”) of common stock, \$0.0001 par value per share, of the Company (the “**Common Stock**”).

To induce the Underwriters that may participate in the Public Offering to continue their efforts in connection with the Public Offering, the undersigned hereby agrees that, without the prior written consent of Morgan Stanley and Jefferies on behalf of the Underwriters, it will not, and will not publicly disclose an intention to, during the period commencing on the date hereof and ending 90 days after the date of the final prospectus (the “**Restricted Period**”) relating to the Public Offering (the “**Prospectus**”), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, (“**Sell or Offer to Sell**”) any shares of Common Stock beneficially owned (as such term is used in Rule 13d-3 of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), by the undersigned or any other securities so owned convertible into or exercisable or exchangeable for Common Stock (“**Related Securities**”) or (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock (“**Swap**”), whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise. The foregoing will not apply to the registration of the offer and sale of the Shares, and the sale of the Shares to the Underwriters, in each case to the extent contemplated by the Underwriting Agreement. In addition, the foregoing restrictions shall not apply to (i) the establishment or amendment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of Common Stock or Related Securities, *provided* that (x) no public announcement or filing under the Exchange Act shall be permitted with respect to the establishment or amendment of such trading plan, and (y) such plan shall not provide for or permit any transfers, sales or other dispositions during the Restricted Period; (ii) the transfer of Common Stock or Related Securities by gift, or by will or intestate succession to a Family Member (as defined below) or to a trust whose beneficiaries consist exclusively of one or more of the undersigned and/or a Family Member, or to a charitable organization, (iii) transfers by operation of law, including pursuant to a court or regulatory agency order, a qualified domestic relations order or in connection with a divorce settlement, (iv) transfers as a distribution to limited partners and/or general partners, limited liability company members or stockholders of the undersigned, (v) transfers to a corporation, partnership, limited liability company, investment fund or other entity that controls or is controlled by, or is under common control with, the undersigned, or is wholly-owned by the undersigned, or, in the case of an investment fund, that is managed by, or is under common management with, the undersigned (including, for the avoidance of doubt, a fund managed by the same manager or managing member or general partner or management company or by an entity controlling, controlled by, or under common control with such manager or managing member or general partner or management company as the undersigned or who shares a common investment advisor with the undersigned), (vi) transfers of Common Stock or Related Securities pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of Common Stock and Related Securities involving a Change of Control (as defined below) of the Company, *provided* that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the Common Stock and Related Securities owned by the undersigned shall remain subject to the restrictions contained in this letter agreement, and (vii) transfers of Common Stock to the Company to cover the payment of taxes due upon or consideration required in connection with the vesting, conversion or exercise of securities issued under an equity incentive plan or stock purchase plan of the Company existing on the date hereof and described in the prospectus for which the Public Offering relates, including the withholding of Common Stock by, or surrender of Common Stock to, the Company pursuant to a “net” or “cashless” exercise or settlement feature, *provided* that if the undersigned is required to make a filing under the Exchange Act, such filing shall include a footnote describing the purpose of the transaction; *provided, however*, that in any such case (except (vi) and (vii)), it shall be a condition to such transfer that:

- each transferee executes and delivers to Morgan Stanley and Jefferies an agreement in form and substance satisfactory to Morgan Stanley and Jefferies stating that such transferee is receiving and holding such Common Stock and/or Related Securities subject to the provisions of this letter agreement and agrees not to Sell or Offer to Sell such Common Stock and/or Related Securities, engage in any Swap or engage in any other activities restricted under this letter agreement except in accordance with this letter agreement (as if such transferee had been an original signatory hereto), and

· prior to the expiration of the Restricted Period, no public disclosure or filing under the Exchange Act by any party to the transfer (donor, donee, transferor or transferee) shall be required, or made voluntarily, reporting a reduction in beneficial ownership of Common Stock in connection with such transfer.

“**Change of Control**” shall mean the transfer (whether by tender offer, merger, consolidation or other similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter pursuant to the Public Offering), of the Company’s voting securities if, after such transfer, such person or group of affiliated persons would hold more than 50% of the outstanding voting securities of the Company (or the surviving entity).

“**Family Member**” shall mean the spouse of the undersigned, an immediate family member of the undersigned or an immediate family member of the undersigned’s spouse, in each case living in the undersigned’s household or whose principal residence is the undersigned’s household (regardless of whether such spouse or family member may at the time be living elsewhere due to educational activities, health care treatment, military service, temporary internship or employment or otherwise). “**Immediate family member**” as used above shall have the meaning set forth in Rule 16a-1(e) under the Exchange Act.

In addition, the undersigned agrees that, without the prior written consent of Morgan Stanley and Jefferies on behalf of the Underwriters, it will not, during the Restricted Period, make any demand for or exercise any right with respect to, the registration of any shares of Common Stock or any security convertible into or exercisable or exchangeable for Common Stock. The undersigned also agrees and consents to the entry of stop transfer instructions with the Company’s transfer agent and registrar against the transfer of the undersigned’s shares of Common Stock except in compliance with the foregoing restrictions.

The undersigned understands that the Company and the Underwriters are relying upon this agreement in proceeding toward consummation of the Public Offering. The undersigned further understands that this agreement is irrevocable and shall be binding upon the undersigned’s heirs, legal representatives, successors and assigns.

The undersigned understands that, (i) if the Company notifies Morgan Stanley and Jefferies in writing prior to execution of the Underwriting Agreement that it does not intend to proceed with the Public Offering, (ii) the purchase of the Shares pursuant to the Underwriting Agreement does not occur by April 1, 2020, or (iii) if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Common Stock to be sold thereunder, then the undersigned shall be released from all obligations under this letter.

Whether or not the Public Offering actually occurs depends on a number of factors, including market conditions. Any Public Offering will only be made pursuant to an Underwriting Agreement, the terms of which are subject to negotiation between the Company and the Underwriters.

This agreement shall be governed by and construed in accordance with the laws of the State of New York.

Very truly yours,

Signature

Printed Name of Person Signing (and capacity, if applicable)

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

Name of Entity (if applicable)

c/o ADMA Biologics, Inc.
465 State Route 17
Ramsey, New Jersey 07446

Address

Directors, Officers and Others
Signing Lock-up Agreement

Directors:

Steven A. Elms

Jerrold B. Grossman

Dov. A Goldstein

Eric I. Richman

Bryant E. Fong

Lawrence P. Guiheen

Officers:

Adam S. Grossman

Brian Lenz

James Mond

Others:

Aisling Capital

Biomark Capital



ADMA Biologics Announces Proposed \$75 Million Public Offering of Common Stock

RAMSEY, N.J. and BOCA RATON, Fla., Feb. 6, 2020 (Global 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 for the treatment of immunodeficient patients at risk for infection and others at risk for certain infectious diseases, today announced that it has commenced an \$75 million underwritten public offering of its common stock. The Company intends to grant the underwriters of the offering a 30-day option to purchase up to an additional 15 percent of the number of shares of common stock sold in connection with the offering. The proposed offering is subject to market and other conditions, and there can be no assurance as to whether or when the offering may be completed, or as to the actual size or terms of the offering.

ADMA intends to use the net proceeds from this offering (i) for the procurement of raw materials for the manufacturing of BIVIGAM and ASCENIV; (ii) to support the ongoing commercial sales of BIVIGAM and ASCENIV; (iii) to expand the manufacturing capacity of its Boca Facility, including supply chain functions, and enhance the robustness of its supply chain oversight; (iv) to expand its plasma collection facility network; (v) for research and development and business development opportunities; and (vi) for general corporate purposes and other capital expenditures.

Morgan Stanley and Jefferies LLC are acting as joint book-running managers of the proposed offering.

The securities described above are being offered by the Company pursuant to a “shelf” registration statement on Form S-3 (File No. 333-234107) previously filed with the Securities and Exchange Commission (“SEC”) on October 4, 2019, and declared effective by the SEC on October 15, 2019. The offering will be made only by means of a written prospectus and a prospectus supplement that form a part of the registration statement. The preliminary prospectus supplement and the accompanying prospectus relating to the offering will be filed with the SEC and will be available on the SEC’s website at www.sec.gov. Electronic copies of the preliminary prospectus supplement and the accompanying prospectus relating to the offering may be obtained, when available, from Morgan Stanley & Co. LLC, 180 Varick Street, 2nd Floor, New York, NY 10014, Attention: Prospectus Department, or from Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022; by phone at (877) 821-7388; or by e-mail at Prospectus_Department@Jefferies.com.

Before investing in the offering, you should read in their entirety the preliminary prospectus supplement and its accompanying prospectus to be filed with the SEC, and the other documents that the Company has filed with the SEC that will be incorporated by reference in the prospectus supplement and its accompanying prospectus, which will 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.

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 – slra 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’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 related to certain aspects of its products and product candidates.

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, ADMA’s intention to grant the underwriters a 30-day option to purchase additional shares in 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:

Brian Lenz
Executive Vice President and Chief Financial Officer | 201-478-5552 | www.admabiologics.com

INVESTOR RELATIONS CONTACT:

Sam Martin
Managing Director, Argot Partners | 212-600-1902 | sam@argotpartners.com



ADMA Biologics Announces Pricing of Upsized \$82.3 Million Public Offering of Common Stock

RAMSEY, N.J. and BOCA RATON, Fla., Feb. 6, 2020 (Global 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 for the treatment of immunodeficient patients at risk for infection and others at risk for certain infectious diseases, today announced the pricing of its previously announced underwritten public offering of 23,500,000 shares of its common stock at a public offering price of \$3.50 per share, resulting in gross proceeds of approximately \$82.3 million before deducting underwriting discounts and commissions and other estimated offering expenses.

The offering is expected to close on February 11, 2020, subject to the satisfaction of customary closing conditions. The Company has also granted the underwriters a 30-day option to purchase up to 3,525,000 additional shares of common stock at the public offering price less the underwriting discount.

ADMA intends to use the net proceeds from this offering (i) for the procurement of raw materials for the manufacturing of BIVIGAM and ASCENIV; (ii) to support the ongoing commercial sales of BIVIGAM and ASCENIV; (iii) to expand the manufacturing capacity of its Boca Facility, including supply chain functions, and enhance the robustness of its supply chain oversight; (iv) to expand its plasma collection facility network; (v) for research and development and business development opportunities; and (vi) for general corporate purposes and other capital expenditures.

Morgan Stanley and Jefferies LLC are acting as joint book-running managers for the offering. Oppenheimer & Co. Inc. is acting as co-manager for the offering.

The securities described above are being offered by the Company pursuant to a “shelf” registration statement on Form S-3 (File No. 333-234107) previously filed with the Securities and Exchange Commission (“SEC”) on October 4, 2019, and declared effective by the SEC on October 15, 2019. The offering will be made only by means of a written prospectus and a prospectus supplement that form a part of the registration statement. A preliminary prospectus supplement and an accompanying prospectus relating to the offering has been filed with the SEC and is available on the SEC’s website at www.sec.gov. Electronic copies of the final prospectus supplement and the accompanying prospectus relating to the offering may be obtained, when available, from Morgan Stanley & Co. LLC, 180 Varick Street, 2nd Floor, New York, NY 10014, Attention: Prospectus Department, or from Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022; by phone at (877) 821-7388; or by e-mail at Prospectus_Department@Jefferies.com.

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 preliminary 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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