

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): July 28, 2022

**SYNTHETIC BIOLOGICS, INC.**

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction of  
incorporation)

001-12584

(Commission File No.)

13-3808303

(IRS Employer Identification  
No.)

9605 Medical Center Drive, Suite 270

Rockville, Maryland 20850

(Address of principal executive offices and zip code)

(301) 417-4364

Registrant's telephone number, including area code

N/A

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

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (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 \$0.001 per share	SYN	NYSE American LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in in Rule 405 of the Securities Act of 1933 (17 CFR §230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by checkmark 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 July 29, 2022, Synthetic Biologics, Inc., a Nevada corporation (the "Company"), closed a private placement offering pursuant to the terms of a Securities Purchase Agreement (the "Purchase Agreement") dated as of July 28, 2022 entered into with MSD Credit Opportunity Master Fund, L.P. (the "Investor"), pursuant to which the Company agreed to issue and sell (the "Offering") 275,000 shares of the Company's Series C Convertible Preferred Stock, par value \$0.001 per share (the "Series C Preferred Stock"), and 100,000 shares of the Company's Series D Convertible Preferred Stock, par value \$0.001 per share (the "Series D Preferred Stock," and together with the Series C Preferred Stock, the "Preferred Stock"), at an offering price of \$8.00 per share, for gross proceeds of approximately \$3.0 million in the aggregate, before the deduction of discounts, fees and offering expenses. The shares of Preferred Stock will be convertible, at a conversion price (the "Conversion Price") of \$1.22 per share (subject in certain circumstances to adjustments), into an aggregate of 2,459,016 shares of the Company's common stock, par value \$0.001 per share (the "Common Stock"), at the option of the holders of the Preferred Stock and, in certain circumstances, by the Company. The Purchase Agreement contains customary representations, warranties and agreements by the Company and customary conditions to closing.

The Company intends to include certain proposals at its 2022 annual meeting of stockholders, including to consider (i) an amendment to the Company's Articles of Incorporation, as amended (the "Charter"), to change the name of the Company to "Theriva Biologics, Inc." (the "Name Change"), (ii) an amendment to the Charter to increase the number of authorized shares of Common Stock from 20,000,000 to 350,000,000 (the "Authorized Common Stock Increase") and (iii) any proposal to adjourn any meeting of stockholders called for the purpose of voting on the Authorized Common Stock Increase (collectively, the "Stockholder Items"). The Investor has agreed in the Purchase Agreement to (i) not transfer, offer, sell, contract to sell, hypothecate, pledge or otherwise dispose of the shares of the Preferred Stock until the earlier of the date that the Authorized Common Stock Increase is effected or October 26, 2022 (which may be extended to December 31, 2022 if certain conditions are met), (ii) vote the shares of the Series C Preferred Stock purchased in the Offering in favor of the Stockholder Items and (iii) vote the shares of the Series D Preferred Stock purchased in the Offering in the

same proportion as shares of Common Stock and any other shares of capital stock of the Company that are entitled to vote thereon (excluding any shares of Common Stock that are not voted) on the Stockholder Items.

Each of the Name Change and the Authorized Common Stock Increase requires the affirmative vote of a majority of the voting power of the outstanding Common Stock and Preferred Stock entitled to vote on the proposal, voting together as a single class. Because the Series D Preferred Stock will, without further action of the Investor, be voted on the Stockholder Items in the same proportion as shares of Common Stock and any other shares of capital stock of the Company that are entitled to vote thereon (excluding any shares of Common Stock that are not voted), abstentions by common stockholders will not have any effect on the votes cast by the holders of the Series D Preferred Stock on the Stockholder Items.

Pursuant to the Purchase Agreement, the Company has filed certificates of designation (the "Certificates of Designation") with the Secretary of the State of Nevada designating the rights, preferences and limitations of the shares of Series C Preferred Stock and Series D Preferred Stock. The Certificate of Designation for the Series C Preferred Stock provides, in particular, that the Series C Preferred Stock will have no voting rights other than the right to vote as a class on the Stockholder Items and the right to cast votes on an as converted to Common Stock basis on the Stockholder Items. The Certificate of Designation for the Series D Preferred Stock provides, in particular, that the Series D Preferred Stock will have no voting rights other than the right to vote as a class on the Stockholder Items and the right to cast 20,000 votes per share of Series D Preferred Stock on the Stockholder Items.

The holders of Preferred Stock will be entitled to dividends, on an as-if converted basis, equal to dividends actually paid, if any, on shares of Common Stock. The Conversion Price may be adjusted pursuant to the Certificates of Designation for stock dividends and stock splits, subsequent rights offering, pro rata distributions of dividends or the occurrence of a fundamental transaction (as defined in the applicable Certificate of Designation).

Pursuant to the Purchase Agreement, the Company is required to file a registration statement with the Securities and Exchange Commission (the "Commission") to register for resale the shares of Common Stock that are issued upon the potential conversion of shares of Preferred Stock. The registration statement must be filed with the Commission no later than forty-five (45) days following the date of the Purchase Agreement (the "Filing Deadline") and the Company is required to use reasonable best efforts to cause such registration statement to be declared effective as soon as possible after filing, but in no event later than sixty (60) days following the Filing Deadline.

A.G.P./Alliance Global Partners ("AGP") served as financial advisor to the Company and the Company agreed to pay AGP an aggregate cash fee equal to \$175,000 and to reimburse the Placement Agent for certain of its expenses in an amount not to exceed \$40,000.

The foregoing summaries of the Purchase Agreement and Certificates of Designation do not purport to be complete and are subject to, and qualified in their entirety by, forms of such documents attached as Exhibits 10.1, 3.1, and 3.2, respectively, to this Current Report on Form 8-K, which are incorporated herein by reference.

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The representations, warranties and covenants contained in the Purchase Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to the agreements and are subject to limitations agreed upon by the contracting parties. Accordingly, the Purchase Agreement is incorporated herein by reference only to provide investors with information regarding the terms of the Purchase Agreement and not to provide investors with any other factual information regarding the Company or its business and should be read in conjunction with the disclosures in the Company's periodic reports and other filings with the Commission.

#### **Item 3.02. Unregistered Sales of Equity Securities.**

The disclosure required by this Item and included in Item 1.01 of this Current Report is incorporated herein by reference.

#### **Item 3.03. Material Modifications to Rights of Security Holders.**

The disclosure required by this Item and included in Item 1.01 of this Current Report is incorporated herein by reference.

#### **Item 5.03. Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year.**

The disclosure required by this Item and included in Item 1.01 of this Current Report is incorporated herein by reference.

#### **Item 8.01. Other Events.**

The Company issued a press release announcing the Offering on July 29, 2022. A copy of the press release is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

#### **Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

<b>Exhibit Number</b>	<b>Description</b>
<a href="#">3.1</a>	<a href="#">Form of Certificate of Designation of Series C Convertible Preferred Stock</a>
<a href="#">3.2</a>	<a href="#">Form of Certificate of Designation of Series D Convertible Preferred Stock</a>
<a href="#">10.1</a>	<a href="#">Securities Purchase Agreement between Synthetic Biologics Inc. and MSD Credit Opportunity Master Fund, L.P., dated as of July 28, 2022</a>
<a href="#">99.1</a>	<a href="#">Press Release issued by Synthetic Biologics, Inc., dated July 29, 2022</a>
104	Cover Page Interactive Data File (embedded within the XBRL document)

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#### **SIGNATURES**

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

Dated: July 29, 2022

SYNTHETIC BIOLOGICS, INC.

By: /s/ Steven A. Shallcross

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Name: Steven A. Shallcross  
Title: Chief Executive Officer  
and Chief Financial Officer

**SYNTHETIC BIOLOGICS, INC.**  
**CERTIFICATE OF DESIGNATION**  
**OF**  
**SERIES C CONVERTIBLE PREFERRED STOCK**  
**PURSUANT TO SECTION 78.1955 OF THE**  
**NEVADA REVISED STATUTES**

The following is a statement of the voting powers, designations, preferences, limitations, restrictions and relative rights of “Series C Convertible Preferred Stock” of Synthetic Biologics, Inc., a Nevada corporation (the “Corporation”), as established by resolutions of the Corporation’s Board of Directors (the “Board of Directors”) pursuant to Nevada Revised Statutes (“NRS”) 78.1955:

**WHEREAS**, the Articles of Incorporation of the Corporation, as amended (the “Articles of Incorporation”), provides for a class of its authorized stock known as preferred stock, consisting of 10,000,000 shares, \$0.001 par value per share, issuable from time to time in one or more series;

**WHEREAS**, the Board of Directors is authorized by resolution to provide for the issuance of preferred stock in one or more classes or series, and to establish from time to time the number of shares to be included in each such class or series, and to fix the voting powers, designations, preferences, limitations, restrictions and relative participating, optional or other rights, if any, of the shares of each such class or series and the qualifications, limitations or restrictions thereof; and

**WHEREAS**, it is the desire of the Board of Directors, pursuant to its authority as described above, to fix the rights, preferences, restrictions and other matters relating to a series of the preferred stock, which shall consist of 275,000 shares of the preferred stock which the Corporation has the authority to issue.

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Directors does hereby provide for the issuance of a series of preferred stock to be designated “Series C Convertible Preferred Stock” and does hereby fix and determine the voting powers, designations, preferences, limitations, restrictions and relative participating, optional or other rights, if any, of the shares of each such series and the qualifications, limitations or restrictions thereof as follows:

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 of the Securities Act.

“Alternate Consideration” shall have the meaning set forth in Section 7(d).

“Amendment” means the amendment to the Articles of Incorporation, to be effective after the date hereof, to give effect to the Authorized Common Stock Increase.

“Authorized Common Stock Increase” means the amendment to the Corporation’s Articles of Incorporation to, after the date hereof, increase the number of authorized shares of Common Stock from 20,000,000 to 350,000,000.

“Authorized Common Stock Increase Date” means the earlier of (i) the date on which the Authorized Common Stock Increase Amendment becomes effective under the NRS and (ii) October 26, 2022 or, solely to the extent required for the Company to solicit proxies from its stockholders for the purposes of obtaining the Stockholder Approvals (as defined in the Purchase Agreement), December 31, 2022.

“Beneficial Ownership Limitation” shall have the meaning set forth in Section 6(e).

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“Buy-In” shall have the meaning set forth in Section 6(d)(iv).

“Change of Control Transaction” means the occurrence after the date hereof of any of (a) an acquisition by an individual or legal entity or “group” (as described in Rule 13d-5(b)(1) promulgated under the Exchange Act) of effective control (whether through legal or beneficial ownership of capital stock of the Corporation, by contract or otherwise) of in excess of 33% of the voting securities of the Corporation (other than by means of the issuance, sale, conversion or exercise of Series C Preferred Stock or Series D Preferred Stock), (b) the Corporation merges into or consolidates with any other Person, or any Person merges into or consolidates with the Corporation and, after giving effect to such transaction, the stockholders of the Corporation immediately prior to such transaction own less than 66% of the aggregate voting power of the Corporation or the successor entity of such transaction, (c) the Corporation (and all of its Subsidiaries, taken as a whole) sells or transfers all or substantially all of its assets to another Person and the stockholders of the Corporation immediately prior to such transaction own less than 66% of the aggregate voting power of the acquiring entity immediately after the transaction, (d) a replacement at one time or within a one year period of more than one-half of the members of the Board of Directors which is not approved by a majority of those individuals who are members of the Board of Directors on the Original Issue Date (or by those individuals who are serving as members of the Board of Directors on any date whose nomination to the Board of Directors was approved by a majority of the members of the Board of Directors who are members on the Original Issue Date), or (e) the execution by the Corporation of an agreement to which the Corporation is a party or by which it is bound, providing for any of the events set forth in clauses (a) through (d) above.

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

“Common Stock” means the Corporation’s common stock, \$0.001 par value per share, and stock of any other class of securities into which such securities may hereafter be reclassified, converted or changed.

“Common Stock Equivalents” means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Conversion Amount” means the Stated Value at issue.

“Conversion Date” shall have the meaning set forth in Section 6(a).

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

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“Conversion Shares” means, collectively, the shares of Common Stock issuable upon conversion of the shares of Series C Preferred Stock in accordance with the terms hereof.

“Distribution” shall have the meaning set forth in Section 7(c).

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

“Fundamental Transaction” shall have the meaning set forth in Section 7(d).

“Holder” shall have the meaning given such term in Section 2.

“Liquidation” shall have the meaning set forth in Section 5.

“Name Change” means the amendment to the Corporation’s Articles of Incorporation to, after the date hereof, change the name of the Company to “Theriva Biologics, Inc.”

“Notice of Conversion” shall have the meaning set forth in Section 6(a).

“Original Issue Date” means the date of the first issuance of any shares of the Series C Preferred Stock regardless of the number of transfers of any particular shares of Series C Preferred Stock and regardless of the number of certificates which may be issued to evidence such Series C Preferred Stock.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Purchase Agreement” means the Preferred Stock Purchase Agreement, dated as of July 28, 2022, among the Corporation and the original Holders, as amended, modified or supplemented from time to time in accordance with its terms.

“Purchase Rights” shall have the meaning set forth in Section 7(b).

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Series C Preferred Stock” shall have the meaning set forth in Section 2.

“Series D Preferred Stock Certificate of Designation” means the Certificate of Designation of Preferences, Rights and Limitations of the Series D Convertible Preferred Stock of the Corporation, dated as of the date hereof.

“Share Delivery Date” shall have the meaning set forth in Section 6(d).

“Stated Value” shall have the meaning set forth in Section 2.

“Subscription Amount” shall mean, as to each Holder, the aggregate amount to be paid for the Series C Preferred Stock purchased pursuant to the Purchase Agreement as specified below such Holder’s name on the signature page of the Purchase Agreement and next to the heading “Subscription Amount,” in United States dollars and in immediately available funds.

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“Subsidiary” means any subsidiary of the Corporation as set forth on Schedule 3.1(a) of the Purchase Agreement and shall, where applicable, also include any direct or indirect subsidiary of the Corporation formed or acquired after the date of the Purchase Agreement.

“Successor Entity” shall have the meaning set forth in Section 7(d).

“Trading Day” means a day on which the principal Trading Market is open for business.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“Transaction Documents” means this Certificate of Designation, the Series D Preferred Stock Certificate of Designation, the Purchase Agreement, all exhibits and schedules thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated pursuant to the Purchase Agreement, in each case as amended, modified or supplemented from time to time in accordance with its terms.

“Transfer Agent” means Equiniti Trust Company, and any successor transfer agent of the Corporation.

Section 2. Designation, Amount and Par Value. The series of preferred stock shall be designated as “Series C Convertible Preferred Stock” (the “Series C Preferred Stock”) and the number of shares of such series shall be 275,000 (which shall not be subject to increase without the written consent of the holders of a majority of the then outstanding shares of the Series C Preferred Stock (each, a “Holder” and collectively, the “Holders”). Each share of Series C Preferred Stock shall have a par value of \$0.001 per share and a stated value equal to \$8.00 (the “Stated Value”).

Section 3. Dividends. Except for stock dividends or distributions for which adjustments are to be made pursuant to Section 7, Holders shall be entitled to receive, and the Corporation shall pay, dividends on shares of Series C Preferred Stock equal (on an as-if-converted-to-Common-Stock basis, disregarding for such purpose any conversion limitations hereunder) to and in the same form as dividends actually paid on shares of the Common Stock when, as and if such dividends are paid on shares of the Common Stock. No other dividends shall be paid on shares of Series C Preferred Stock. The Corporation shall not pay any dividends on the Common Stock unless the Corporation

simultaneously complies with this provision.

#### Section 4. Voting Rights.

a) For purposes of determining the presence of a quorum at any meeting of the stockholders of the Corporation at which the shares of Series C Preferred Stock are entitled to vote and the voting power of the shares of Series C Preferred Stock, each holder of outstanding shares of Series C Preferred Stock shall be entitled to a number of votes equal to the number of shares of Common Stock into which such shares of Series C Preferred Stock are then convertible, disregarding, for such purposes, any limitations on conversion set forth herein.

b) Each share of Series C Preferred Stock shall entitle the holder thereof (a) to vote exclusively with respect to the Name Change, the Authorized Common Stock Increase and any proposal to adjourn any meeting of stockholders called for the purpose of voting on the Authorized Common Stock Increase (and the Series C Preferred Stock shall not be entitled to vote on any other matter except to the extent required under the Nevada Revised Statutes or provided herein) on an as converted to Common Stock basis and (b) to a number of votes equal to the number of Conversion Shares issuable upon conversion thereof assuming the Series C Preferred Stock were then convertible into Common Stock (whether or not such Conversion Shares are then convertible and disregarding any limitations on conversion set forth herein), and shall, except as required by law, vote together with the Common Stock and any other class or series of capital stock entitled to vote thereon as a single class. Notwithstanding the foregoing, in addition, as long as any shares of Series C Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of a majority of the then outstanding shares of the Series C Preferred Stock, voting as a separate class, (a) alter or change the powers, preferences or rights of the Series C Preferred Stock so as to affect them adversely or amend this Certificate of Designation, (b) amend the Articles of Incorporation or other charter documents in a manner adverse to the Holders, (c) increase the number of authorized shares of Series C Preferred Stock, or (d) enter into any agreement with respect to any of the foregoing.

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Section 5. Liquidation. Upon any liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary (a "Liquidation"), prior and in preference to the Common Stock, the Holders shall be entitled to receive out of the assets available for distribution to stockholders an amount in cash equal to the greater of (i) 105% of the Stated Value and (ii) the amount such Holder would be entitled to receive on an as-converted basis if such Holder elected to convert its Series C Preferred Stock on the date of such Liquidation. The preference set forth in this Section 5 with respect to distributions to the Series C Preferred Stock upon a Liquidation shall apply *mutatis mutandis* to any distributions to be made upon the consummation of a Fundamental Transaction or Change of Control Transaction. The Corporation shall mail written notice of any such Liquidation, Fundamental Transaction or Change of Control Transaction not less than 45 days prior to the payment date stated therein, to each Holder.

#### Section 6. Conversion.

a) Conversions at Option of Holder. Subject to Section 6(d), each share of Series C Preferred Stock shall be convertible, at any time and from time to time only after the Authorized Common Stock Increase Date, at the option of the Holder thereof, into that number of shares of Common Stock determined by dividing the Stated Value of such share of Series C Preferred Stock by the Conversion Price. Holders shall effect conversions by delivering to the Corporation a conversion notice in the form attached hereto as Annex A (a "Notice of Conversion"). Each Notice of Conversion shall specify the number of shares of Series C Preferred Stock to be converted, the number of shares of Series C Preferred Stock owned prior to the conversion at issue, the number of shares of Series C Preferred Stock owned subsequent to the conversion at issue and the date on which such conversion is to be effected, which date may not be prior to the date the applicable Holder delivers such Notice of Conversion (which may be via email) to the Corporation (such date, the "Conversion Date"). If no Conversion Date is specified in a Notice of Conversion, the Conversion Date shall be as of the close of business on the Business Day that such Notice of Conversion is delivered to the Corporation, or if such day is not a Business Day or if the Notice of Conversion is delivered after regular business hours, the next Business Day. No ink-original Notice of Conversion shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Conversion form be required. The calculations and entries set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error. From and after the Conversion Date, until presented for transfer or exchange, certificates that previously represented shares of Series C Preferred Stock shall represent, in lieu of the number of shares of Series C Preferred Stock previously represented by such certificate, the number of shares of Series C Preferred Stock, if any, previously represented by such certificate that were not converted pursuant to the Notice of Conversion, plus the number of shares of Conversion Shares into which the shares of Series C Preferred Stock previously represented by such certificate were converted. To effect conversions of shares of Series C Preferred Stock, a Holder shall not be required to surrender the certificate(s), if any, representing the shares of Series C Preferred Stock to the Corporation unless all of the shares of Series C Preferred Stock represented thereby are so converted, in which case such Holder shall deliver the certificate representing such shares of Series C Preferred Stock promptly following the Conversion Date at issue. Shares of Series C Preferred Stock converted into Common Stock shall be canceled and shall not be reissued.

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b) Conversion Upon Approval of the Board of Directors. The Board of Directors shall have the power, at any time after the sixtieth (60th) day following the Effectiveness Date (as defined in the Purchase Agreement), in its sole and absolute discretion, to convert each of the outstanding shares of Series C Preferred Stock into that number of shares of Common Stock determined by dividing the Stated Value of such share of Series C Preferred Stock by the Conversion Price. No action by the Holder, any other holder of shares of Preferred Stock or any holder of shares of Common Stock shall be required to effectuate the conversion contemplated by this Section 6(b). The Corporation shall mail written notice of any such conversion not less than 10 days prior to the conversion date stated therein, to each Holder it being agreed that the "Conversion Date" for purposes of this Section 6(b) herein shall be deemed to be the conversion date specified in the notice.

c) Conversion Price. The conversion price for the Series C Preferred Stock shall equal \$1.22, subject to adjustment herein (the "Conversion Price").

d) Mechanics of Conversion.

i. Delivery of Conversion Shares Upon Conversion. Not later than the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined below) after each Conversion Date (the "Share Delivery Date"), the Corporation shall deliver, or cause to be delivered, to the converting Holder the number of Conversion Shares being acquired upon the conversion of the Series C Preferred Stock, which Conversion Shares shall be free of restrictive legends and trading restrictions. The Corporation shall use its reasonable best efforts to deliver the Conversion Shares required to be delivered by the Corporation under this Section 6 electronically through the Depository Trust Company or another established clearing corporation performing similar functions. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Corporation's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Conversion.

ii. Failure to Deliver Conversion Shares. If, in the case of any Notice of Conversion, such Conversion Shares are not delivered to or as directed by the applicable Holder by the Share Delivery Date, the Holder shall be entitled to elect by written notice to the Corporation at any time on or before its receipt of such Conversion Shares, to rescind such Conversion, in which event the Corporation shall promptly return to the Holder any original Preferred Stock certificate delivered to the Corporation and the Holder shall promptly return to the Corporation the Conversion Shares issued to such Holder pursuant to the rescinded Notice of Conversion.

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iii. Obligation Absolute; Partial Liquidated Damages. Subject to Section 6(d), the Corporation's obligation to issue and deliver the Conversion Shares upon conversion of Series C Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by a Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such Holder or any other Person, and irrespective of any other circumstance, which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares; provided, however, that such delivery shall not operate as a waiver by the Corporation of any such action that the Corporation may have against such Holder. In the event a Holder shall elect to convert any or all of the Stated Value of its Series C Preferred Stock, the Corporation may not refuse conversion based on any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, agreement or for any other reason, other than pursuant to Section 6(d), unless an injunction from a court, on notice to Holder, restraining and/or enjoining conversion of all or part of the Series C Preferred Stock of such Holder shall have been sought and obtained, and the Corporation posts a surety bond for the benefit of such Holder in the amount of 150% of the Stated Value of the Series C Preferred Stock which is subject to the injunction, which bond shall remain in effect until the completion of arbitration/litigation of the underlying dispute and the proceeds of which shall be payable to such Holder to the extent it obtains judgment. In the absence of such injunction, subject to Section 6(d), the Corporation shall issue Conversion Shares and, if applicable, cash, upon a properly noticed conversion. If the Corporation fails to deliver to a Holder such Conversion Shares pursuant to Section 6(d)(i) by the Share Delivery Date applicable to such conversion, other than pursuant to Section 6(d), the Corporation shall pay to such Holder, either (A) in cash, as liquidated damages and not as a penalty, for each \$5,000 of Stated Value of Series C Preferred Stock being converted, \$50 per Trading Day (increasing to \$100 per Trading Day on the third Trading Day after the Share Delivery Date and increasing to \$200 per Trading Day on the sixth Trading Day after the Share Delivery Date) for each Trading Day after the Share Delivery Date until the earlier of such Conversion Shares are delivered or Holder rescinds such conversion or (B) the amount pursuant to a Buy-In pursuant to Section 6(d)(iv) hereof. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

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iv. Compensation for Buy-In on Failure to Timely Deliver Conversion Shares Upon Conversion. In addition to any other rights available to the Holder, if the Corporation fails for any reason to deliver to a Holder the applicable Conversion Shares by the Share Delivery Date pursuant to Section 6(d)(i), and if after such Share Delivery Date such Holder is required by its brokerage firm to purchase (in an open market transaction or otherwise), or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "Buy-In"), then the Corporation shall either (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount, if any, by which (x) such Holder's total purchase price (including any brokerage commissions) for the Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Series C Preferred Stock equal to the number of shares of Series C Preferred Stock submitted for conversion (in which case, such conversion shall be deemed rescinded) or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(d)(i). For example, if a Holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted conversion of shares of Series C Preferred Stock with respect to which the actual sale price of the Conversion Shares (including any brokerage commissions) giving rise to such purchase obligation was a total of \$10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder \$1,000. The Holder shall provide the Corporation written notice indicating the amounts payable to such Holder in respect of the Buy-In and, upon request of the Corporation, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver the Conversion Shares upon conversion of the shares of Series C Preferred Stock as required pursuant to the terms hereof.

v. Reservation of Shares Issuable Upon Conversion. From and after the Authorized Common Stock Increase Date and until no shares of Series C Preferred Stock remain outstanding, the Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Series C Preferred Stock as herein provided, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holder (and the other holders of the Series C Preferred Stock), not less than the aggregate number of shares of the Common Stock as shall (subject to the terms and conditions set forth in the Purchase Agreement) be issuable (taking into account any adjustments under Section 7) upon the conversion of the then outstanding shares of Series C Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and nonassessable.

vi. Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the conversion of the Series C Preferred Stock. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such conversion, the Corporation shall at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Conversion Price or round up to the next whole share. Notwithstanding anything to the contrary contained herein, but consistent with the provisions of this subsection with respect to fractional Conversion Shares, nothing shall prevent any Holder from converting fractional shares of Series C Preferred Stock.

vii. Transfer Taxes and Expenses. The issuance of Conversion Shares on conversion of the Series C Preferred Stock shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such Conversion Shares, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such Conversion Shares upon conversion in a name other than that of the Holders of such shares of Series C Preferred Stock and the Corporation shall not be required to issue or deliver such Conversion Shares unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid. The Corporation shall pay all Transfer Agent fees required for same-day processing of any Notice of Conversion and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Conversion Shares.

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e) Beneficial Ownership Limitation. Notwithstanding anything to the contrary set forth herein, the Corporation shall not effect any conversion of the Series C Preferred Stock, and a Holder shall not have the right to convert any portion of the Series C Preferred Stock, to the extent that, after giving effect to the conversion set forth on the applicable Notice of Conversion, such Holder (together with such Holder's Affiliates, and any Persons acting as a group together with such Holder or any of such Holder's Affiliates (such Persons, "Attribution Parties")) would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Series C Preferred Stock with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (i) conversion of the remaining, unconverted Series C Preferred Stock beneficially owned by such Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation subject to a limitation on conversion or exercise analogous to the limitation contained herein (including, without limitation, the Series D Preferred Stock) beneficially owned by such Holder or any of its Affiliates or

Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 6(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. To the extent that the limitation contained in this Section 6(e) applies, the determination of whether the Series C Preferred Stock is convertible (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and of how many shares of Series C Preferred Stock are convertible shall be in the sole discretion of such Holder, and the submission of a Notice of Conversion shall be deemed to be such Holder's determination of whether the shares of Series C Preferred Stock may be converted (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and how many shares of the Series C Preferred Stock are convertible, in each case subject to the Beneficial Ownership Limitation. To ensure compliance with this restriction, each Holder will be deemed to represent to the Corporation each time it delivers a Notice of Conversion that such Notice of Conversion has not violated the restrictions set forth in this Section 6(e) and the Corporation shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 6(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as stated in the most recent of the following: (i) the Corporation's most recent periodic or annual report filed with the Commission, as the case may be, (ii) a more recent public announcement by the Corporation or (iii) a more recent written notice by the Corporation or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request (which may be via email) of a Holder, the Corporation shall within one (1) Trading Day confirm orally and in writing to such Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Corporation, including the Series C Preferred Stock, by such Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any shares of Series C Preferred Stock, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Series C Preferred Stock held by the applicable Holder. A Holder, upon notice to the Corporation, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 6(e) applicable to its Series C Preferred Stock; provided, that the Beneficial Ownership Limitation shall not in any event exceed 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon conversion of this Series C Preferred Stock held by the Holder and the provisions of this Section 6(e) shall continue to apply. Any such increase will not be effective until the 61<sup>st</sup> day after such notice is delivered to the Corporation and shall only apply to such Holder and no other Holder. The Beneficial Ownership Limitation shall not be waived by the Corporation or the Holder and upon issuance of the Series C Preferred Stock by the Corporation, and the purchase thereof by the Holder, in accordance with the Purchase Agreement, each of the Corporation and the Purchaser shall be deemed to acknowledge such limitation and to agree not to waive it. The provisions of this Section 6(e) shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 6(e) to correct this Section (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation contained herein or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this Section shall apply to a successor holder of Series C Preferred Stock.

#### Section 7. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Corporation, at any time while the Series C Preferred Stock is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions that is payable in shares of Common Stock on shares of Common Stock or any other Common Stock Equivalents (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of, or payment of a dividend on, the Series C Preferred Stock), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues, in the event of a reclassification of shares of the Common Stock, any shares of capital stock of the Corporation, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) outstanding immediately before such event, and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to this Section 7(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification. Notwithstanding the foregoing in no event may the Conversion Price be less than the par value per share of Series C Preferred Stock.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 7(a) above, if at any time the Corporation grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of Common Stock or any class thereof (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of such Holder's Series C Preferred Stock (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Distributions. During such time as the Series C Preferred Stock is outstanding, if the Corporation declares or makes any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of the Series C Preferred Stock (without regard to any limitations on conversion hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. If, at any time while the Series C Preferred Stock is outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation (and all of its Subsidiaries, taken as a whole), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of at least 50% of the outstanding Common Stock, (iv) the Corporation, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Corporation, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding

shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”), then, upon any subsequent conversion of the Series C Preferred Stock, the Holder shall have the right to receive, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of the Series C Preferred Stock), the number of shares of Common Stock of the successor or acquiring corporation or of the Corporation, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which the Series C Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of the Series C Preferred Stock). For purposes of any such conversion, the determination of the Conversion Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall apportion the Conversion Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any conversion of the Series C Preferred Stock following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation with the same terms and conditions and issue to the Holders new preferred stock consistent with the foregoing provisions and evidencing the Holders’ right to convert such preferred stock into Alternate Consideration. The Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the “Successor Entity”) to assume in writing all of the obligations of the Corporation under this Certificate of Designation and the other Transaction Documents in accordance with the provisions of this Section 7(d) pursuant to written agreements in customary form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for the Series C Preferred Stock a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to the Series C Preferred Stock which is convertible for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon conversion of the Series C Preferred Stock (without regard to any limitations on the conversion of the Series C Preferred Stock) prior to such Fundamental Transaction, and with a conversion price which applies the conversion price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such conversion price being for the purpose of protecting the economic value of the Series C Preferred Stock immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Certificate of Designation and the other Transaction Documents referring to the “Corporation” shall refer instead to the Successor Entity), and may exercise every right and power of the Corporation and shall assume all of the obligations of the Corporation under this Certificate of Designation and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Corporation herein.

e) Calculations. All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

f) Notice of Holders.

i. Adjustment to Conversion Price. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder by email a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Conversion by Holder. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any sale or transfer of all or substantially all of the assets of the Corporation (and all of its Subsidiaries, taken as a whole), or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of the Preferred Stock, and shall cause to be delivered by email to each Holder at its last email address as it shall appear upon the stock books of the Corporation, at least four (4) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange, provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Corporation or any of the Subsidiaries, the Corporation shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to convert the Conversion Amount of the Preferred Stock (or any part hereof) during the 4-day period commencing on the date of such notice through the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 8. Miscellaneous.

a) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, by email attachment, or sent by a nationally recognized overnight courier service, addressed to the Corporation, at 9605 Medical Center Drive, Ste. 270, Rockville, MD 20850, Attention: Steven A. Shallcross, Chief Executive Officer, email address \*\*\*, or such other email address or address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section 8 Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by email attachment, or sent by a nationally recognized overnight courier service addressed to each Holder at the email address or address of such Holder appearing on the books of the Corporation, or if no such email address or address appears on the books of the Corporation, at the principal place of business of such Holder, as set forth in the Purchase Agreement. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via email attachment at the email address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via email attachment at the email address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given.

b) Lost or Mutilated Preferred Stock Certificate. If a Holder's Series C Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Series C Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership hereof reasonably satisfactory to the Corporation (which shall not include the posting of any bond).

c) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances.

d) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

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

f) Status of Converted Preferred Stock. Shares of Series C Preferred Stock may only be issued pursuant to the Purchase Agreement. If any shares of Series C Preferred Stock shall be converted or reacquired by the Corporation, such shares may not be reissued and shall automatically be retired and cancelled and shall resume the status of authorized but unissued shares of preferred stock.

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**ANNEX A**

**NOTICE OF CONVERSION**

**(TO BE EXECUTED BY THE REGISTERED HOLDER IN ORDER TO CONVERT SHARES OF SERIES C PREFERRED STOCK)**

The undersigned hereby elects to convert the number of shares of Series C Convertible Preferred Stock indicated below into shares of common stock, par value \$0.001 per share (the "Common Stock"), of Synthetic Biologics, Inc., a Nevada corporation (the "Corporation"), according to the conditions hereof, as of the date written below. If shares of Common Stock are to be issued in the name of a Person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto. No fee will be charged to the Holders for any conversion, except for any such transfer taxes.

Conversion calculations:

Date to Effect Conversion: \_\_\_\_\_  
Number of shares of Preferred Stock owned prior to Conversion: \_\_\_\_\_  
Number of shares of Preferred Stock to be Converted: \_\_\_\_\_  
Stated Value of shares of Preferred Stock to be Converted: \_\_\_\_\_  
Number of shares of Common Stock to be Issued: \_\_\_\_\_  
Applicable Conversion Price: \_\_\_\_\_  
Number of shares of Preferred Stock subsequent to Conversion: \_\_\_\_\_  
Address for Delivery: \_\_\_\_\_

Or

DWAC Instructions:

Broker no: \_\_\_\_\_  
Account no: \_\_\_\_\_

HOLDER

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**SYNTHETIC BIOLOGICS, INC.**  
**CERTIFICATE OF DESIGNATION**  
**OF**  
**SERIES D CONVERTIBLE PREFERRED STOCK**  
**PURSUANT TO SECTION 78.1955 OF THE**  
**NEVADA REVISED STATUTES**

The following is a statement of the voting powers, designations, preferences, limitations, restrictions and relative rights of “Series D Convertible Preferred Stock” of Synthetic Biologics, Inc., a Nevada corporation (the “Corporation”), as established by resolutions of the Corporation’s Board of Directors (the “Board of Directors”) pursuant to Nevada Revised Statutes (“NRS”) 78.1955:

**WHEREAS**, the Articles of Incorporation of the Corporation, as amended (the “Articles of Incorporation”), provides for a class of its authorized stock known as preferred stock, consisting of 10,000,000 shares, \$0.001 par value per share, issuable from time to time in one or more series;

**WHEREAS**, the Board of Directors is authorized by resolution to provide for the issuance of preferred stock in one or more classes or series, and to establish from time to time the number of shares to be included in each such class or series, and to fix the voting powers, designations, preferences, limitations, restrictions and relative participating, optional or other rights, if any, of the shares of each such class or series and the qualifications, limitations or restrictions thereof; and

**WHEREAS**, it is the desire of the Board of Directors, pursuant to its authority as described above, to fix the rights, preferences, restrictions and other matters relating to a series of the preferred stock, which shall consist of 100,000 shares of the preferred stock which the Corporation has the authority to issue.

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Directors does hereby provide for the issuance of a series of preferred stock to be designated “Series D Convertible Preferred Stock” and does hereby fix and determine the voting powers, designations, preferences, limitations, restrictions and relative participating, optional or other rights, if any, of the shares of each such series and the qualifications, limitations or restrictions thereof as follows:

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 of the Securities Act.

“Alternate Consideration” shall have the meaning set forth in Section 7(d).

“Amendment” means the amendment to the Articles of Incorporation, to be effective after the date hereof, to give effect to the Authorized Common Stock Increase.

“Authorized Common Stock Increase” means the amendment to the Corporation’s Articles of Incorporation to, after the date hereof, increase the number of authorized shares of Common Stock from 20,000,000 to 350,000,000.

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“Authorized Common Stock Increase Date” means the earlier of (i) the date on which the Authorized Common Stock Increase Amendment becomes effective under the NRS and (ii) October 26, 2022 or, solely to the extent required for the Company to solicit proxies from its stockholders for the purposes of obtaining the Stockholder Approvals (as defined in the Purchase Agreement), December 31, 2022.

“Beneficial Ownership Limitation” shall have the meaning set forth in Section 6(e).

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“Buy-In” shall have the meaning set forth in Section 6(d)(iv).

“Change of Control Transaction” means the occurrence after the date hereof of any of (a) an acquisition by an individual or legal entity or “group” (as described in Rule 13d-5(b)(1) promulgated under the Exchange Act) of effective control (whether through legal or beneficial ownership of capital stock of the Corporation, by contract or otherwise) of in excess of 33% of the voting securities of the Corporation (other than by means of the issuance, sale, conversion or exercise of Series C Preferred Stock or Series D Preferred Stock), (b) the Corporation merges into or consolidates with any other Person, or any Person merges into or consolidates with the Corporation and, after giving effect to such transaction, the stockholders of the Corporation immediately prior to such transaction own less than 66% of the aggregate voting power of the Corporation or the successor entity of such transaction, (c) the Corporation (and all of its Subsidiaries, taken as a whole) sells or transfers all or substantially all of its assets to another Person and the stockholders of the Corporation immediately prior to such transaction own less than 66% of the aggregate voting power of the acquiring entity immediately after the transaction, (d) a replacement at one time or within a one year period of more than one-half of the members of the Board of Directors which is not approved by a majority of those individuals who are members of the Board of Directors on the Original Issue Date (or by those individuals who are serving as members of the Board of Directors on any date whose nomination to the Board of Directors was approved by a majority of the members of the Board of Directors who are members on the Original Issue Date), or (e) the execution by the Corporation of an agreement to which the Corporation is a party or by which it is bound, providing for any of the events set forth in clauses (a) through (d) above.

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

“Common Stock” means the Corporation’s common stock, \$0.001 par value per share, and stock of any other class of securities into which such securities may hereafter be reclassified, converted or changed.

“Common Stock Equivalents” means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Conversion Amount” means the Stated Value at issue.

“Conversion Date” shall have the meaning set forth in Section 6(a).

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

“Conversion Shares” means, collectively, the shares of Common Stock issuable upon conversion of the shares of Series D Preferred Stock in accordance with the terms hereof.

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

“Fundamental Transaction” shall have the meaning set forth in Section 7(d).

“Holder” shall have the meaning given such term in Section 2.

“Liquidation” shall have the meaning set forth in Section 5.

“Name Change” means the amendment to the Corporation’s Articles of Incorporation to, after the date hereof, change the name of the Company to “Theriva Biologics, Inc.”

“Notice of Conversion” shall have the meaning set forth in Section 6(a).

“Original Issue Date” means the date of the first issuance of any shares of the Series D Preferred Stock regardless of the number of transfers of any particular shares of Series D Preferred Stock and regardless of the number of certificates which may be issued to evidence such Series D Preferred Stock.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Purchase Agreement” means the Preferred Stock Purchase Agreement, dated as of July 28, 2022, among the Corporation and the original Holders, as amended, modified or supplemented from time to time in accordance with its terms.

“Purchase Rights” shall have the meaning set forth in Section 7(b).

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Series C Preferred Stock Certificate of Designation” means the Certificate of Designation of Preferences, Rights and Limitations of the Series C Convertible Preferred Stock of the Corporation, dated as of the date hereof.

“Series D Preferred Stock” shall have the meaning set forth in Section 2.

“Share Delivery Date” shall have the meaning set forth in Section 6(d).

“Stated Value” shall have the meaning set forth in Section 2.

“Subscription Amount” shall mean, as to each Holder, the aggregate amount to be paid for the Series D Preferred Stock purchased pursuant to the Purchase Agreement as specified below such Holder’s name on the signature page of the Purchase Agreement and next to the heading “Subscription Amount,” in United States dollars and in immediately available funds.

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“Subsidiary” means any subsidiary of the Corporation as set forth on Schedule 3.1(a) of the Purchase Agreement and shall, where applicable, also include any direct or indirect subsidiary of the Corporation formed or acquired after the date of the Purchase Agreement.

“Successor Entity” shall have the meaning set forth in Section 7(d).

“Trading Day” means a day on which the principal Trading Market is open for business.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“Transaction Documents” means this Certificate of Designation, the Series C Preferred Stock Certificate of Designation, the Purchase Agreement, all exhibits and schedules thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated pursuant to the Purchase Agreement, in each case as amended, modified or supplemented from time to time in accordance with its terms.

“Transfer Agent” means Equiniti Trust Company, and any successor transfer agent of the Corporation.

Section 2. Designation, Amount and Par Value. The series of preferred stock shall be designated as “Series D Convertible Preferred Stock” (the “Series D Preferred Stock”) and the number of shares of such series shall be 100,000 (which shall not be subject to increase without the written consent of the holders of a majority of the then outstanding shares of the Series D Preferred Stock (each, a “Holder” and collectively, the “Holders”). Each share of Series D Preferred Stock shall have a par value of \$0.001 per share and a stated value equal to \$8.00 (the “Stated Value”).

Section 3. Dividends. Except for stock dividends or distributions for which adjustments are to be made pursuant to Section 7, Holders shall be entitled to receive, and the Corporation shall pay, dividends on shares of Series D Preferred Stock equal (on an as-if-converted-to-Common-Stock basis, disregarding for such purpose any conversion limitations hereunder) to and in the same form as dividends actually paid on shares of the Common Stock when, as and if such dividends are paid on shares of the Common Stock. No other dividends shall be paid on shares of Series D Preferred Stock. The Corporation shall not pay any dividends on the Common Stock unless the Corporation simultaneously complies with this provision.

#### Section 4. Voting Rights.

a) Solely for purposes of determining the presence of a quorum at any meeting of the stockholders of the Corporation at which the shares of Series D Preferred Stock are entitled to vote, the number of shares of Series D Preferred Stock and votes represented by such shares shall be counted on an as converted to Common Stock basis, disregarding, for such purposes, any limitations on conversion set forth herein.

b) Each share of Series D Preferred Stock shall entitle the holder thereof (a) to vote exclusively with respect to the Name Change, the Authorized Common Stock Increase and any proposal to adjourn any meeting of stockholders called for the purpose of voting on the Authorized Common Stock Increase (and the Series D Preferred Stock shall not be entitled to vote on any other matter except to the extent required under the Nevada Revised Statutes or provided herein) and (b) to 20,000 votes per each share of Series D Preferred Stock and shall, except as required by law, vote together with the Common Stock and any other issued and outstanding class or series of capital stock of the Corporation that are entitled to vote thereon, as a single class; provided, that all votes cast by the Series D Preferred Stock with regards to any proposal for the approval of the Name Change, the Authorized Common Stock Increase and any proposal to adjourn any meeting of stockholders called for the purpose of voting on the Authorized Common Stock Increase, when properly cast by the Holder, shall be voted, without further action by such Holder, in the same proportion as shares of Common Stock and any other shares of capital stock that are entitled to vote thereon are voted (excluding any shares of Common Stock that are not voted) on the Name Change, the Authorized Common Stock Increase, and any proposal to adjourn any meeting of stockholders called for the purpose of voting on the Authorized Common Stock Increase. Notwithstanding the foregoing, in addition, as long as any shares of Series D Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of a majority of the then outstanding shares of the Series D Preferred Stock, voting as a separate class, (a) alter or change the powers, preferences or rights of the Series D Preferred Stock so as to affect them adversely or alter or amend this Certificate of Designation, (b) amend the Articles of Incorporation or other charter documents in a manner adverse to the Holders, (c) increase the number of authorized shares of Series D Preferred Stock, or (d) enter into any agreement with respect to any of the foregoing.

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Section 5. Liquidation. Upon any liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary (a "Liquidation"), prior and in preference to the Common Stock, the Holders shall be entitled to receive out of the assets available for distribution to stockholders an amount in cash equal to the greater of (i) 105% of the Stated Value and (ii) the amount such Holder would be entitled to receive on an as-converted basis if such Holder elected to convert its Series D Preferred Stock on the date of such Liquidation. The preference set forth in this Section 5 with respect to distributions to the Series D Preferred Stock upon a Liquidation shall apply *mutatis mutandis* to any distributions to be made upon the consummation of a Fundamental Transaction or Change of Control Transaction. The Corporation shall mail written notice of any such Liquidation, Fundamental Transaction or Change of Control Transaction not less than 45 days prior to the payment date stated therein, to each Holder.

#### Section 6. Conversion.

a) Conversions at Option of Holder. Subject to Section 6(d), each share of Series D Preferred Stock shall be convertible, at any time and from time to time only after the Authorized Common Stock Increase Date, at the option of the Holder thereof, into that number of shares of Common Stock determined by dividing the Stated Value of such share of Series D Preferred Stock by the Conversion Price. Holders shall effect conversions by delivering to the Corporation a conversion notice in the form attached hereto as Annex A (a "Notice of Conversion"). Each Notice of Conversion shall specify the number of shares of Series D Preferred Stock to be converted, the number of shares of Series D Preferred Stock owned prior to the conversion at issue, the number of shares of Series D Preferred Stock owned subsequent to the conversion at issue and the date on which such conversion is to be effected, which date may not be prior to the date the applicable Holder delivers such Notice of Conversion (which may be via email) to the Corporation (such date, the "Conversion Date"). If no Conversion Date is specified in a Notice of Conversion, the Conversion Date shall be as of the close of business on the Business Day that such Notice of Conversion is delivered to the Corporation, or if such day is not a Business Day or if the Notice of Conversion is delivered after regular business hours, the next Business Day. No ink-original Notice of Conversion shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Conversion form be required. The calculations and entries set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error. From and after the Conversion Date, until presented for transfer or exchange, certificates that previously represented shares of Series D Preferred Stock shall represent, in lieu of the number of shares of Series D Preferred Stock previously represented by such certificate, the number of shares of Series D Preferred Stock, if any, previously represented by such certificate that were not converted pursuant to the Notice of Conversion, plus the number of shares of Conversion Shares into which the shares of Series D Preferred Stock previously represented by such certificate were converted. To effect conversions of shares of Series D Preferred Stock, a Holder shall not be required to surrender the certificate(s), if any, representing the shares of Series D Preferred Stock to the Corporation unless all of the shares of Series D Preferred Stock represented thereby are so converted, in which case such Holder shall deliver the certificate representing such shares of Series D Preferred Stock promptly following the Conversion Date at issue. Shares of Series D Preferred Stock converted into Common Stock shall be canceled and shall not be reissued.

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b) Conversion Upon Approval of the Board of Directors. The Board of Directors shall have the power, at any time after the sixtieth (60th) day following the Effectiveness Date (as defined in the Purchase Agreement), in its sole and absolute discretion, to convert each of the outstanding shares of Series D Preferred Stock into that number of shares of Common Stock determined by dividing the Stated Value of such share of Series D Preferred Stock by the Conversion Price. No action by the Holder, any other holder of shares of Preferred Stock or any holder of shares of Common Stock shall be required to effectuate the conversion contemplated by this Section 6(b). The Corporation shall mail written notice of any such conversion not less than 10 days prior to the conversion date stated therein, to each Holder it being agreed that the "Conversion Date" for purposes of this Section 6(b) herein shall be deemed to be the conversion date specified in the notice.

c) Conversion Price. The conversion price for the Series D Preferred Stock shall equal \$1.22, subject to adjustment herein (the "Conversion Price").

#### d) Mechanics of Conversion

i. Delivery of Conversion Shares Upon Conversion. Not later than the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined below) after each Conversion Date (the "Share Delivery Date"), the Corporation shall deliver, or cause to be delivered, to the converting Holder the number of Conversion Shares being acquired upon the conversion of the Series D Preferred Stock, which Conversion Shares shall be free of restrictive legends and trading restrictions. The Corporation shall use its reasonable best efforts to deliver the Conversion Shares required to be delivered by the Corporation under this Section 6 electronically through the Depository Trust Company or another established clearing corporation performing similar functions. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Corporation's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Conversion.

ii. Failure to Deliver Conversion Shares. If, in the case of any Notice of Conversion, such Conversion Shares are not delivered to or as directed by the applicable Holder by the Share Delivery Date, the Holder shall be entitled to elect by written notice to the Corporation at any time on or before its receipt of such Conversion Shares, to rescind such Conversion, in which event the Corporation shall promptly return to the Holder any original Preferred Stock certificate delivered to the Corporation and the Holder shall promptly return to the Corporation the Conversion Shares issued to such Holder pursuant to the rescinded Notice of Conversion.

iii. Obligation Absolute; Partial Liquidated Damages. Subject to Section 6(d), the Corporation's obligation to issue and deliver the Conversion

Shares upon conversion of Series D Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by a Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such Holder or any other Person, and irrespective of any other circumstance, which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares; provided, however, that such delivery shall not operate as a waiver by the Corporation of any such action that the Corporation may have against such Holder. In the event a Holder shall elect to convert any or all of the Stated Value of its Series D Preferred Stock, the Corporation may not refuse conversion based on any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, agreement or for any other reason, other than pursuant to Section 6(d), unless an injunction from a court, on notice to Holder, restraining and/or enjoining conversion of all or part of the Series D Preferred Stock of such Holder shall have been sought and obtained, and the Corporation posts a surety bond for the benefit of such Holder in the amount of 150% of the Stated Value of the Series D Preferred Stock which is subject to the injunction, which bond shall remain in effect until the completion of arbitration/litigation of the underlying dispute and the proceeds of which shall be payable to such Holder to the extent it obtains judgment. In the absence of such injunction, subject to Section 6(d), the Corporation shall issue Conversion Shares and, if applicable, cash, upon a properly noticed conversion. If the Corporation fails to deliver to a Holder such Conversion Shares pursuant to Section 6(d)(i) by the Share Delivery Date applicable to such conversion, other than pursuant to Section 6(d), the Corporation shall pay to such Holder, either (A) in cash, as liquidated damages and not as a penalty, for each \$5,000 of Stated Value of Series D Preferred Stock being converted, \$50 per Trading Day (increasing to \$100 per Trading Day on the third Trading Day after the Share Delivery Date and increasing to \$200 per Trading Day on the sixth Trading Day after the Share Delivery Date) for each Trading Day after the Share Delivery Date until the earlier of such Conversion Shares are delivered or Holder rescinds such conversion or (B) the amount pursuant to a Buy-In pursuant to Section 6(d)(iv) hereof. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

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iv. Compensation for Buy-In on Failure to Timely Deliver Conversion Shares Upon Conversion. In addition to any other rights available to the Holder, if the Corporation fails for any reason to deliver to a Holder the applicable Conversion Shares by the Share Delivery Date pursuant to Section 6(d)(i), and if after such Share Delivery Date such Holder is required by its brokerage firm to purchase (in an open market transaction or otherwise), or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "Buy-In"), then the Corporation shall either (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount, if any, by which (x) such Holder's total purchase price (including any brokerage commissions) for the Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Series D Preferred Stock equal to the number of shares of Series D Preferred Stock submitted for conversion (in which case, such conversion shall be deemed rescinded) or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(d)(i). For example, if a Holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted conversion of shares of Series D Preferred Stock with respect to which the actual sale price of the Conversion Shares (including any brokerage commissions) giving rise to such purchase obligation was a total of \$10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder \$1,000. The Holder shall provide the Corporation written notice indicating the amounts payable to such Holder in respect of the Buy-In and, upon request of the Corporation, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver the Conversion Shares upon conversion of the shares of Series D Preferred Stock as required pursuant to the terms hereof.

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v. Reservation of Shares Issuable Upon Conversion. From and after the Authorized Common Stock Increase Date and until no shares of Series D Preferred Stock remain outstanding, the Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Series D Preferred Stock as herein provided, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holder (and the other holders of the Series D Preferred Stock), not less than the aggregate number of shares of the Common Stock as shall (subject to the terms and conditions set forth in the Purchase Agreement) be issuable (taking into account any adjustments under Section 7) upon the conversion of the then outstanding shares of Series D Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and nonassessable.

vi. Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the conversion of the Series D Preferred Stock. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such conversion, the Corporation shall at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Conversion Price or round up to the next whole share. Notwithstanding anything to the contrary contained herein, but consistent with the provisions of this subsection with respect to fractional Conversion Shares, nothing shall prevent any Holder from converting fractional shares of Series D Preferred Stock.

vii. Transfer Taxes and Expenses. The issuance of Conversion Shares on conversion of the Series D Preferred Stock shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such Conversion Shares, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such Conversion Shares upon conversion in a name other than that of the Holders of such shares of Series D Preferred Stock and the Corporation shall not be required to issue or deliver such Conversion Shares unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid. The Corporation shall pay all Transfer Agent fees required for same-day processing of any Notice of Conversion and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Conversion Shares.

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e) Beneficial Ownership Limitation. Notwithstanding anything to the contrary set forth herein, the Corporation shall not effect any conversion of the Series D Preferred Stock, and a Holder shall not have the right to convert any portion of the Series D Preferred Stock, to the extent that, after giving effect to the conversion set forth on the applicable Notice of Conversion, such Holder (together with such Holder's Affiliates, and any Persons acting as a group together with such Holder or any of such Holder's Affiliates (such Persons, "Attribution Parties")) would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Series D Preferred Stock with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (i) conversion of the remaining, unconverted Series D Preferred Stock beneficially owned by such Holder or any of its Affiliates or Attribution

Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation subject to a limitation on conversion or exercise analogous to the limitation contained herein (including, without limitation, the Series C Preferred Stock) beneficially owned by such Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 6(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. To the extent that the limitation contained in this Section 6(e) applies, the determination of whether the Series D Preferred Stock is convertible (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and of how many shares of Series D Preferred Stock are convertible shall be in the sole discretion of such Holder, and the submission of a Notice of Conversion shall be deemed to be such Holder's determination of whether the shares of Series D Preferred Stock may be converted (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and how many shares of the Series D Preferred Stock are convertible, in each case subject to the Beneficial Ownership Limitation. To ensure compliance with this restriction, each Holder will be deemed to represent to the Corporation each time it delivers a Notice of Conversion that such Notice of Conversion has not violated the restrictions set forth in this Section 6(e) and the Corporation shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 6(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as stated in the most recent of the following: (i) the Corporation's most recent periodic or annual report filed with the Commission, as the case may be, (ii) a more recent public announcement by the Corporation or (iii) a more recent written notice by the Corporation or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request (which may be via email) of a Holder, the Corporation shall within one (1) Trading Day confirm orally and in writing to such Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Corporation, including the Series D Preferred Stock, by such Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any shares of Series D Preferred Stock, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Series D Preferred Stock held by the applicable Holder. A Holder, upon notice to the Corporation, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 6(e) applicable to its Series D Preferred Stock; provided, that the Beneficial Ownership Limitation shall not in any event exceed 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon conversion of this Series D Preferred Stock held by the Holder and the provisions of this Section 6(e) shall continue to apply. Any such increase will not be effective until the 61<sup>st</sup> day after such notice is delivered to the Corporation and shall only apply to such Holder and no other Holder. The Beneficial Ownership Limitation shall not be waived by the Corporation or the Holder and upon issuance of the Series D Preferred Stock by the Corporation, and the purchase thereof by the Holder, in accordance with the Purchase Agreement, each of the Corporation and the Purchaser shall be deemed to acknowledge such limitation and to agree not to waive it. The provisions of this Section 6(e) shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 6(e) to correct this Section (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation contained herein or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this Section shall apply to a successor holder of Series D Preferred Stock.

#### Section 7. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Corporation, at any time while the Series D Preferred Stock is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions that is payable in shares of Common Stock on shares of Common Stock or any other Common Stock Equivalents (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of, or payment of a dividend on, the Series D Preferred Stock), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues, in the event of a reclassification of shares of the Common Stock, any shares of capital stock of the Corporation, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) outstanding immediately before such event, and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to this Section 7(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification. Notwithstanding the foregoing in no event may the Conversion Price be less than the par value per share of Series D Preferred Stock.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 7(a) above, if at any time the Corporation grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of Common Stock or any class thereof (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of such Holder's Series D Preferred Stock (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Distributions. During such time as the Series D Preferred Stock is outstanding, if the Corporation declares or makes any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of the Series D Preferred Stock (without regard to any limitations on conversion hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. If, at any time while the Series D Preferred Stock is outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation (and all of its Subsidiaries, taken as a whole), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of at least 50% of the outstanding Common Stock, (iv) the Corporation, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Corporation, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without

limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”), then, upon any subsequent conversion of the Series D Preferred Stock, the Holder shall have the right to receive, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of the Series D Preferred Stock), the number of shares of Common Stock of the successor or acquiring corporation or of the Corporation, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which the Series D Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of the Series D Preferred Stock). For purposes of any such conversion, the determination of the Conversion Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall apportion the Conversion Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any conversion of the Series D Preferred Stock following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation with the same terms and conditions and issue to the Holders new preferred stock consistent with the foregoing provisions and evidencing the Holders’ right to convert such preferred stock into Alternate Consideration. The Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the “Successor Entity”) to assume in writing all of the obligations of the Corporation under this Certificate of Designation and the other Transaction Documents in accordance with the provisions of this Section 7(d) pursuant to written agreements in customary form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for the Series D Preferred Stock a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to the Series D Preferred Stock which is convertible for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon conversion of the Series D Preferred Stock (without regard to any limitations on the conversion of the Series D Preferred Stock) prior to such Fundamental Transaction, and with a conversion price which applies the conversion price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such conversion price being for the purpose of protecting the economic value of the Series D Preferred Stock immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Certificate of Designation and the other Transaction Documents referring to the “Corporation” shall refer instead to the Successor Entity), and may exercise every right and power of the Corporation and shall assume all of the obligations of the Corporation under this Certificate of Designation and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Corporation herein.

e) Calculations. All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

f) Notice of Holders.

i. Adjustment to Conversion Price. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder by email a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Conversion by Holder. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any sale or transfer of all or substantially all of the assets of the Corporation (and all of its Subsidiaries, taken as a whole), or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of the Preferred Stock, and shall cause to be delivered by email to each Holder at its last email address as it shall appear upon the stock books of the Corporation, at least four (4) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange, provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Corporation or any of the Subsidiaries, the Corporation shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to convert the Conversion Amount of the Preferred Stock (or any part hereof) during the 4-day period commencing on the date of such notice through the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

## Section 8. Miscellaneous.

a) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, by email attachment, or sent by a nationally recognized overnight courier service, addressed to the Corporation, at 9605 Medical Center Drive, Ste. 270, Rockville, MD 20850, Attention: Steven A. Shallcross, Chief Executive Officer, email address \*\*\*, or such other email address or address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section 8. Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by email attachment, or sent by a nationally recognized overnight courier service addressed to each Holder at the email address or address of such Holder appearing on the books of the Corporation, or if no such email address or address appears on the books of the Corporation, at the principal place of business of such Holder, as set forth in the Purchase Agreement. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via email attachment at the email address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via email attachment at the email address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given.

b) Lost or Mutilated Preferred Stock Certificate. If a Holder's Series D Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Series D Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership hereof reasonably satisfactory to the Corporation (which shall not include the posting of any bond).

c) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances.

d) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

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

f) Status of Converted Preferred Stock. Shares of Series D Preferred Stock may only be issued pursuant to the Purchase Agreement. If any shares of Series D Preferred Stock shall be converted or reacquired by the Corporation, such shares may not be reissued and shall automatically be retired and cancelled and shall resume the status of authorized but unissued shares of preferred stock.

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**ANNEX A**

**NOTICE OF CONVERSION**

**(TO BE EXECUTED BY THE REGISTERED HOLDER IN ORDER TO CONVERT SHARES OF SERIES D PREFERRED STOCK)**

The undersigned hereby elects to convert the number of shares of Series D Convertible Preferred Stock indicated below into shares of common stock, par value \$0.001 per share (the "Common Stock"), of Synthetic Biologics, Inc., a Nevada corporation (the "Corporation"), according to the conditions hereof, as of the date written below. If shares of Common Stock are to be issued in the name of a Person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto. No fee will be charged to the Holders for any conversion, except for any such transfer taxes.

Conversion calculations:

Date to Effect Conversion: \_\_\_\_\_  
Number of shares of Preferred Stock owned prior to Conversion: \_\_\_\_\_  
Number of shares of Preferred Stock to be Converted: \_\_\_\_\_  
Stated Value of shares of Preferred Stock to be Converted: \_\_\_\_\_  
Number of shares of Common Stock to be Issued: \_\_\_\_\_  
Applicable Conversion Price: \_\_\_\_\_  
Number of shares of Preferred Stock subsequent to Conversion: \_\_\_\_\_  
Address for Delivery: \_\_\_\_\_

Or

DWAC Instructions:

Broker no: \_\_\_\_\_  
Account no: \_\_\_\_\_

HOLDER

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

## SECURITIES PURCHASE AGREEMENT

This Securities Purchase Agreement (this "Agreement") is dated as of July 28, 2022, between Synthetic Biologics, Inc., a Nevada corporation (the "Company"), and MSD Credit Opportunity Master Fund, L.P. (including its successors and assigns, the "Purchaser").

## RECITALS

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

B. The Purchaser wishes to purchase from the Company, and the Company wishes to sell and issue to the Purchaser, upon the terms and subject to the conditions stated in this Agreement, shares of the Company's preferred stock, par value \$0.001 per share (the "Preferred Stock"), that are convertible into shares of the Company's common stock, \$0.001 par value per share (the "Common Stock").

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

**ARTICLE I.  
DEFINITIONS**

1.1 Definitions. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings set forth in this Section 1.1:

"Acquiring Person" shall have the meaning ascribed to such term in Section 4.4.

"Action" shall have the meaning ascribed to such term in Section 3.1(j).

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person as such terms are used in and construed under Rule 405 under the Securities Act.

"Anti-Money Laundering Laws" shall have the meaning ascribed to such term in Section 3.1(kk).

"Authorized Common Stock Increase" means the amendment to the Company's articles of incorporation to, after the date hereof, increase the number of authorized shares of Common Stock from 20,000,000 to 350,000,000.

"Authorized Common Stock Increase Amendment" means the amendment to the Company's certificate of incorporation that effects the Authorized Common Stock Increase.

"Authorized Common Stock Increase Date" means the earlier of (i) the date on which the Authorized Common Stock Increase Amendment becomes effective under the NRS and (ii) October 26, 2022 or, solely to the extent required for the Company to solicit proxies from its stockholders for the purposes of obtaining the Stockholder Approvals, December 31, 2022.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"Closing" means the closing of the purchase and sale of the Shares pursuant to Section 2.1.

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

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value \$0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Company Stock Plans" shall have the meaning ascribed to such term in Section 3.1(g).

"Disclosure Schedules" means the disclosure schedules of the Company delivered concurrently herewith.

"Conversion Shares" means shares of Common Stock issuable upon conversion of the Shares.

"Disclosure Window" means between 4:01 p.m. and 5:30 p.m. (New York City time) on the date of this Agreement.

"Effective Date" shall have the meaning ascribed to such term in Section 4.1(b).

"Environmental Laws" shall have the meaning ascribed to such term in Section 3.1(m).

"Evaluation Date" shall have the meaning ascribed to such term in Section 3.1(s).

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"FCPA" means the Foreign Corrupt Practices Act of 1977, as amended.

“FDA” shall have the meaning ascribed to such term in Section 3.1(hh).

“FDCA” shall have the meaning ascribed to such term in Section 3.1(hh).

“Financial Advisor” means A.G.P./Alliance Global Partners.

“GAAP” shall have the meaning ascribed to such term in Section 3.1(h).

“Hazardous Materials” shall have the meaning ascribed to such term in Section 3.1(m).

“Indebtedness” shall have the meaning ascribed to such term in Section 3.1(mm).

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“Intellectual Property Rights” shall have the meaning ascribed to such term in Section 3.1(p).

“Issuer Covered Person” means the Company, any of its predecessors, any affiliated issuer, nor, to its knowledge, any director, executive officer, other officer of the Company participating in the offering hereunder, any beneficial owner of 20% or more of the Company’s outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the Securities Act) connected with the Company in any capacity at the time of sale.

“IT Systems and Data” shall have the meaning assigned to such term in Section 3.1(oo).

“Liens” means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

“Material Adverse Effect” shall have the meaning assigned to such term in Section 3.1(b).

“Material Permits” shall have the meaning ascribed to such term in Section 3.1(n).

“Name Change” means the amendment to the Company’s articles of incorporation to, after the date hereof, change the name of the Company to “Theriva Biologics, Inc.”

“NRS” means the Nevada Revised Statutes.

“Options” shall have the meaning ascribed to such term in Section 3.1(g).

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Pharmaceutical Product” shall have the meaning ascribed to such term in Section 3.1(hh).

“Preferred Stock” means the Series C Preferred Stock and Series D Preferred Stock of the Company, each with a par value \$0.001 per share.

“Proceeding” means an action, claim, suit, investigation or proceeding (including, without limitation, an informal investigation or partial proceeding, such as a deposition) pending or, to the Company’s knowledge, threatened in writing against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign).

“Purchaser Party” shall have the meaning ascribed to such term in Section 4.7.

“Required Approvals” shall have the meaning ascribed to such term in Section 3.1(e).

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

“SEC Reports” shall have the meaning ascribed to such term in Section 3.1(h).

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

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“Series C Certificate of Designation” means the certificate of designation for the Series C Preferred Stock to be filed with the State of Nevada.

“Series C Preferred Stock” means the Company’s Series C Convertible Preferred Stock issued hereunder having the rights, preferences and privileges set forth in the Series C Certificate of Designation.

“Series D Certificate of Designation” means the certificate of designation for the Series D Preferred Stock to be filed with the State of Nevada.

“Series D Preferred Stock” means the Company’s Series D Convertible Preferred Stock issued hereunder having the rights, preferences and privileges set forth in the Series D Certificate of Designation.

“Shares” means the shares of Preferred Stock issued or issuable to Purchaser pursuant to this Agreement.

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

“Stated Value” means \$8.00 per share of Preferred Stock.

“Stockholder Approvals” means the Company’s stockholders approval of the Authorized Common Stock Increase, Name Change and any proposal to adjourn any meeting of stockholders called for the purpose of voting on the Authorized Common Stock Increase, pursuant to the Nevada Revised Statutes.

“Subscription Amount” means, as to Purchaser, the aggregate dollar amount of Shares purchased hereunder as specified below Purchaser’s name on the signature page of this Agreement and next to the heading “Subscription Amount,” in United States dollars and in immediately available funds.

“Subsidiary” means any subsidiary of the Company as set forth on Schedule 3.1(a), and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

“Trading Day” means a day on which the principal Trading Market is open for trading.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange (or any successors to any of the foregoing).

“Transaction Documents” means this Agreement, the Series C Certificate of Designation, the Series D Certificate of Designation, and all exhibits and schedules thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated hereunder.

“Transfer Agent” means Equiniti Trust Company, the current transfer agent of the Company, with a mailing address of 275 Madison Avenue, 34<sup>th</sup> Floor, New York, New York 10016, and any successor transfer agent of the Company.

## ARTICLE II. PURCHASE AND SALE

2.1 Closing. On the Closing Date, upon the terms and subject to the conditions set forth herein, the Company agrees to issue and sell, and the Purchaser agrees to purchase, an aggregate of \$2,200,000 of Series C Preferred Stock and an aggregate of \$800,000 of Series D Stock Preferred Stock with an aggregate Subscription Amount as set forth on the signature page hereto executed by Purchaser. The aggregate number of shares of Series C Preferred Stock and Series D Preferred Stock sold hereunder shall be 275,000 and 100,000, respectively. Purchaser shall deliver to the Company, via wire transfer, a cash amount of immediately available funds equal to its Subscription Amount, and the Company shall deliver to Purchaser its respective Shares, as determined pursuant to Section 2.2(a), and the Company and Purchaser shall deliver the other items set forth in Section 2.2 deliverable at the Closing. Upon satisfaction of the covenants and conditions set forth in Sections 2.2 and 2.3, the Closing shall occur at the offices of the Financial Advisor or such other location as the parties shall mutually agree.

### 2.2 Deliveries.

(a) On or prior to the Closing Date, the Company shall deliver or cause to be delivered to Purchaser the following:

(i) this Agreement duly executed by the Company;

(ii) the Company shall have provided Purchaser with the Company’s wire instructions, on Company letterhead and executed by the Company’s Chief Executive Officer and Chief Financial Officer;

(iii) a certificate or book entry evidencing 275,000 shares of Series C Preferred Stock, registered in the name of Purchaser, and evidence of the filing and acceptance of the Series C Certificate of Designation from the Secretary of State of Nevada;

(iv) a certificate or book entry evidencing 100,000 shares of Series D Preferred Stock, registered in the name of Purchaser, and evidence of the filing and acceptance of the Series D Certificate of Designation from the Secretary of State of Nevada;

(v) a certificate executed by the Chief Executive Officer and Chief Financial Officer of the Company, dated as of the Closing Date, in form and substance reasonably acceptable to the Purchaser; and

(vi) a certificate executed by the Secretary of the Company, dated as of the Closing Date, in form and substance reasonably acceptable to the Purchaser.

(b) On or prior to the Closing Date, Purchaser shall deliver or cause to be delivered to the Company the following:

(i) this Agreement duly executed by Purchaser; and

(ii) a cash amount equal to Purchaser’s Subscription Amount by wire transfer to the account specified in writing by the Company.

### 2.3 Closing Conditions.

(a) The obligations of the Company hereunder in connection with the Closing are subject to the following conditions being met:

(i) the accuracy in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects) on the Closing Date of the representations and warranties of the Purchaser contained herein (unless as of a specific date therein in which case they shall be accurate as of such date);

(ii) all obligations, covenants and agreements of Purchaser required to be performed at or prior to the Closing Date shall have been performed; and

(iii) the delivery by Purchaser of the items set forth in Section 2.2(b) of this Agreement.

(b) The obligations of the Purchaser hereunder in connection with the Closing are subject to the following conditions being met:

(i) the accuracy in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all

respects) when made and on the Closing Date of the representations and warranties of the Company contained herein (unless as of a specific date therein in which case they shall be accurate as of such date);

(ii) all obligations, covenants and agreements of the Company required to be performed at or prior to the Closing Date shall have been performed in all material respects;

(iii) the delivery by the Company of the items set forth in Section 2.2(a) of this Agreement;

(iv) the Company shall have filed with the Secretary of State of Nevada, and the Secretary of State of Nevada shall have provided evidence of acceptance of, the Series C Certificate of Designation and the Series D Certificate of Designation;

(v) there shall have been no Material Adverse Effect with respect to the Company since the date hereof; and

(vi) from the date hereof to the Closing Date, trading in the Common Stock shall not have been suspended by the Commission or the Company's principal Trading Market, and, at any time prior to the Closing Date, trading in securities generally as reported by Bloomberg L.P. shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported by such service, or on any Trading Market, nor shall a banking moratorium have been declared either by the United States or New York State authorities nor shall there have occurred any material outbreak or escalation of hostilities or other national or international calamity of such magnitude in its effect on, or any material adverse change in, any financial market which, in each case, in the reasonable judgment of Purchaser, makes it impracticable or inadvisable to purchase the Shares at the Closing.

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### ARTICLE III. REPRESENTATIONS AND WARRANTIES

3.1 Representations and Warranties of the Company. Except as set forth in the Disclosure Schedules, which Disclosure Schedules shall be deemed a part hereof and shall qualify any representation or warranty otherwise made herein to the extent of the disclosure contained in the corresponding section of the Disclosure Schedules, the Company hereby makes the following representations and warranties to Purchaser:

(a) Subsidiaries. All of the direct and indirect subsidiaries of the Company are set forth on Schedule 3.1(a). The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any Liens, and all of the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities.

(b) Organization and Qualification. Each of the Company and the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation nor default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not have or reasonably be expected to result in: (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, (ii) a material adverse effect on the results of operations, assets, business, or financial condition of the Company and the Subsidiaries, taken as a whole, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under any Transaction Document (any of (i), (ii) or (iii), a "Material Adverse Effect"); provided that a change in the market price or trading volume of the Common Stock alone shall not be deemed, in and of itself, to constitute a Material Adverse Effect. No Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(c) Authorization, Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and each of the other Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement and each of the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's stockholders in connection herewith or therewith other than in connection with the Required Approvals (as defined below). This Agreement and each other Transaction Document to which it is a party has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof and thereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(d) No Conflicts. The execution, delivery and performance by the Company of this Agreement and the other Transaction Documents to which it is a party, the issuance and sale of the Shares and the consummation by it of the transactions contemplated hereby and thereby do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, anti-dilution or similar adjustments, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals (as defined below), conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as would not have or reasonably be expected to result in a Material Adverse Effect.

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(e) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than: (i) the filing of the Series C Certificate of Designation and Series D Certificate of Designation, (ii) filings pursuant to applicable state and federal securities laws, (iii) the registration statement required to be filed by this Agreement and (iv) the Stockholder Approvals (collectively, the "Required Approvals").

(f) Issuance of the Shares. The Shares have been duly authorized and, subject to the Stockholder Approvals, when issued and paid for in accordance with the applicable Transaction Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company, except for restrictions on

transfer set forth in the Transaction Documents or imposed by applicable securities laws. Subject to the Stockholder Approvals, the Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement. The Company is eligible to use Form S-3 under the Securities Act.

(g) Capitalization. The Company has an authorized and outstanding capitalization as set forth on Schedule 3.1(g). The Company has not issued any capital stock since its most recently filed periodic report under the Exchange Act other than pursuant to the exercise of employee stock options under the Company Stock Plans (as defined below). The shares of Common Stock outstanding prior to the issuance of the Shares have been duly authorized and are validly issued, fully paid and non-assessable. Except as described in Schedule 3.1(g), there are no options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company or any Subsidiary of the Company any shares of the capital stock of the Company or any Subsidiary of the Company, subject to the grant of options consistent with past practices. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. The description of the Company's stock option, stock bonus and other stock plans or arrangements (the "Company Stock Plans"), and the options (the "Options") or other rights granted thereunder, set forth in the SEC Reports accurately and fairly presents in all material respects the information required to be shown with respect to such plans, arrangements, options and rights. Each grant of an Option (A) was duly authorized no later than the date on which the grant of such Option was by its terms to be effective by all necessary corporate action, including, as applicable, approval by the Board of Directors of the Company (or a duly constituted and authorized committee thereof) and any required shareholder approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any) was duly executed and delivered by each party thereto and (B) was made in accordance with the terms of the applicable Company Stock Plan, and all applicable laws and regulatory rules or requirements, including all applicable federal securities laws. The issuance and sale of the Shares will not obligate the Company or any Subsidiary to issue shares of Common Stock or other securities to any Person (other than the Purchaser) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. There are not outstanding securities or instruments of the Company or any Subsidiary that contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to redeem a security of the Company or such Subsidiary. Except as disclosed in Schedule 3.1(g), there are no stockholder agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the Company's knowledge, between or among any of the Company's stockholders.

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(h) SEC Reports: Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the one year preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including all exhibits thereto and documents incorporated by reference therein being collectively referred to herein as the "SEC Reports") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of such extension. At the time of filing thereof, the SEC Reports complied in all material respects with the requirements of the Securities Act or the Exchange Act, as applicable, and did not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports complied in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("GAAP"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

(i) Material Changes: Undisclosed Events, Liabilities or Developments. Since the date of the latest audited financial statements included within the SEC Reports (i) there has been no event, occurrence or development that has had or that would reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any material liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial statements pursuant to GAAP or disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company equity compensation or stock option plans. The Company does not have pending before the Commission any request for confidential treatment of information. Except for the issuance of the Shares contemplated by this Agreement, no event, liability, fact, circumstance, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its Subsidiaries or their respective businesses, prospects, properties, operations, assets or financial condition that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed made that has not been publicly disclosed at least 1 Trading Day prior to the date that this representation is made.

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(j) Litigation. Except as disclosed in the SEC Reports, there is no material Proceeding, inquiry, notice of violation or investigation pending or, to the Company's knowledge, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an "Action"). None of the Actions set forth in the SEC Reports adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Shares or would, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act.

(k) Labor Relations. No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which would reasonably be expected to result in a Material Adverse Effect. Except for the employees of VCN Biosciences, S.L., none of the Company's or its Subsidiaries' employees is a member of a union that relates to such employee's relationship with the Company or such Subsidiary, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement. To the Company's knowledge, no executive officer of the Company or any Subsidiary, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all applicable U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(l) Compliance. Neither the Company nor any Subsidiary: (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any judgment, decree or order of any court, arbitrator or other governmental authority or (iii) is or has been in violation of any applicable statute, rule, ordinance or regulation of any governmental authority, including without limitation all applicable

foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case as would not have or reasonably be expected to result in a Material Adverse Effect.

(m) Environmental Laws. The Company and its Subsidiaries (i) are in material compliance with all applicable federal, state, local and foreign laws relating to pollution or protection of human health or the environment (including ambient air, surface water, groundwater, land surface or subsurface strata), including laws relating to emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, or toxic or hazardous substances or wastes (collectively, “Hazardous Materials”) into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands, or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations, issued, entered, promulgated or approved thereunder (“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 where in each clause (i), (ii) and (iii), the failure to so comply would be reasonably expected to have, individually or in the aggregate, a Material Adverse Effect.

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(n) Regulatory Permits. The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits would not reasonably be expected to result in a Material Adverse Effect (“Material Permits”), and neither the Company nor any Subsidiary has received any notice of any Proceeding relating to the revocation or modification of any Material Permit.

(o) Title to Assets. The Company and the Subsidiaries have good and marketable title in fee simple to all real property owned by them and good and marketable title in all personal property owned by them that is material to the business of the Company and the Subsidiaries, in each case free and clear of all Liens, except for (i) Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries, and (ii) Liens for the payment of federal, state or other taxes, for which appropriate reserves have been made therefor in accordance with GAAP and, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and the Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and the Subsidiaries are in compliance, except where the failure to be in compliance would not reasonably be expected to have a Material Adverse Effect.

(p) Intellectual Property. The Company and the Subsidiaries have, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other intellectual property rights and similar rights necessary or required for use in connection with their respective businesses as described in the SEC Reports and which the failure to so have would have a Material Adverse Effect (collectively, the “Intellectual Property Rights”). None of, and neither the Company nor any Subsidiary has received a written notice that any of, the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within two (2) years from the date of this Agreement. Neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the SEC Reports, a written notice of a claim or otherwise has any knowledge that the Intellectual Property Rights violate or infringe upon the rights of any Person, except as would not have or reasonably be expected to not have a Material Adverse Effect. To the knowledge of the Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The Company has no knowledge of any facts that would preclude it from having valid license rights or clear title to the Intellectual Property Rights. The Company has no knowledge that it lacks or will be unable to obtain any rights or licenses to use all Intellectual Property Rights that are necessary to conduct its business.

(q) Insurance. The Company and the 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 the Company and the Subsidiaries are engaged, including, but not limited to, directors and officers insurance coverage.

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(r) Transactions With Affiliates and Employees. Except as disclosed in the SEC Reports, none of the officers or directors of the Company or any Subsidiary and, to the Company’s knowledge, none of the employees of the Company or any Subsidiary is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, providing for the borrowing of money from or lending of money to or otherwise requiring payments to or from any officer, director or such employee or, to the Company’s knowledge, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, stockholder, member or partner, in each case in excess of \$120,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company.

(s) Sarbanes-Oxley: Internal Accounting Controls. The Company and the Subsidiaries are in compliance in all material respects with the applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date hereof and as of the Closing Date. The Company and the Subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurance that: (i) transactions are executed in accordance with management’s general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management’s general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company and the Subsidiaries have established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the Company and the Subsidiaries and designed such disclosure controls and procedures to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission’s rules and forms. The Company’s certifying officers have evaluated the effectiveness of the disclosure controls and procedures of the Company and the Subsidiaries as of the end of the period covered by the most recently filed periodic report under the Exchange Act (such date, the “Evaluation Date”). The Company presented in its most recently filed periodic report under the Exchange Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the Evaluation Date, there have been no changes in the internal control over financial reporting (as such term is defined in the Exchange Act) of the Company and its Subsidiaries that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company and its Subsidiaries.

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

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(u) Private Placement. Assuming the accuracy of the Purchaser's representations and warranties set forth in Section 3.2, no registration under the Securities Act is required for the offer and sale of the Shares by the Company to the Purchaser as contemplated hereby. The issuance and sale of the Shares hereunder does not contravene the rules and regulations of the Trading Market.

(v) Investment Company. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Shares, will not be or be an Affiliate of, an "investment company" within the meaning of the Investment Company Act of 1940, as amended.

(w) Registration Rights. Except as provided in this Agreement, no Person has any right to cause the Company or any Subsidiary to effect the registration under the Securities Act of any securities of the Company or any Subsidiary.

(x) Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. The Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements. The Common Stock is currently eligible for electronic transfer through the Depository Trust Company or another established clearing corporation and the Company is current in payment of the fees to the Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer.

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

(z) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, the Company confirms that neither it nor, to the Company's knowledge, any other Person acting on its behalf has provided the Purchaser or its agents or counsel with any information that it believes constitutes or might constitute material, nonpublic information which is not otherwise disclosed in the SEC Reports on or prior to the Closing Date. The Company understands and confirms that the Purchaser will rely on the foregoing representation in effecting transactions in securities of the Company. All of the disclosure furnished by or on behalf of the Company to the Purchaser regarding the Company and its Subsidiaries, their respective businesses and the transactions contemplated hereby, including the Disclosure Schedules to this Agreement, is true and correct in all material respects and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. The press releases disseminated by the Company during the twelve months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made and when made, not misleading. The Company acknowledges and agrees that no Purchaser makes or has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 3.2 hereof.

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(aa) No Integrated Offering. Assuming the accuracy of the Purchaser's representations and warranties set forth in Section 3.2, neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Shares to be integrated with prior offerings by the Company for purposes of any applicable shareholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.

(bb) Tax Status. The Company and its Subsidiaries each (i) has made or filed all United States federal, state and local income and all foreign income and franchise tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges that are material in amount, whether or not shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provision reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company or of any Subsidiary know of no basis for any such claim.

(cc) Foreign Corrupt Practices. Neither the Company nor any Subsidiary, nor to the Company's knowledge, any agent or other person acting on behalf of the Company or any Subsidiary, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company or any Subsidiary (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of FCPA.

(dd) Accountants. The Company's independent registered public accounting firm is set forth in the SEC Reports. To the Company's knowledge, such accounting firm (i) is a registered public accounting firm as required by the Exchange Act and (ii) has expressed its opinion with respect to the financial statements included in the Company's Annual Report for the fiscal year ended December 31, 2021.

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

(ff) Reserved.

(gg) Regulation M Compliance. The Company has not, and to the Company's knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Shares, (ii) sold, bid for, purchased, or paid any compensation for soliciting purchases of, any of the Shares, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company, other than, in the case of clauses (ii) and (iii), compensation paid to the Financial Advisor in connection with the placement of the Shares.

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(hh) FDA. As to each product subject to the jurisdiction of the U.S. Food and Drug Administration (“FDA”) under the Federal Food, Drug and Cosmetic Act, as amended, and the regulations thereunder (“FDCA”) that is manufactured, packaged, labeled, tested and/or distributed by the Company or any of its Subsidiaries (each such product, a “Pharmaceutical Product”), such Pharmaceutical Product is being manufactured, packaged, labeled, tested and/or distributed by the Company in compliance with all applicable requirements under FDCA and similar laws, rules and regulations relating to registration, investigational use, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, labeling, advertising, record keeping and filing of reports, except where the failure to be in compliance would not have a Material Adverse Effect. There is no pending, completed or, to the Company’s knowledge, threatened, Action (including any arbitration, or legal or administrative or regulatory Proceeding, charge, complaint, or investigation) against the Company or any of its Subsidiaries, and none of the Company or any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Pharmaceutical Product, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any Pharmaceutical Product, (iii) imposes a clinical hold on any clinical investigation by the Company or any of its Subsidiaries, (iv) enjoins production at any facility of the Company or any of its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or any of its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or any of its Subsidiaries, and which, either individually or in the aggregate, would have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable laws, rules and regulations of the FDA. The Company has not been informed by the FDA that the FDA will prohibit the marketing, sale, license or use in the United States of any product proposed to be developed, produced or marketed by the Company nor has the FDA expressed any concern as to approving or clearing for marketing any product being developed or proposed to be developed by the Company.

(ii) Stock Option Plans. Each stock option granted by the Company under the Company’s stock option plan was granted (i) in accordance with the terms of the Company’s stock option plan and (ii) with an exercise price at least equal to the fair market value of the Common Stock on the date such stock option would be considered granted under GAAP and applicable law. No stock option granted under the Company’s stock option plan has been backdated. The Company has not knowingly granted, and there is no and has been no Company policy or practice to knowingly grant, stock options prior to, or otherwise knowingly coordinate the grant of stock options with, the release or other public announcement of material information regarding the Company or its Subsidiaries or their financial results or prospects.

(jj) Office of Foreign Assets Control. Neither the Company nor any Subsidiary nor, to the Company’s knowledge, any director, officer, agent, employee or affiliate of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department.

(kk) Anti-Money Laundering. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the “Anti-Money Laundering Laws”), and no Action or Proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any Subsidiary with respect to the Anti-Money Laundering Laws is pending or, to the Company’s knowledge, threatened in writing.

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(ll) Other Covered Persons. Other than the Financial Advisor, the Company is not aware of any person (other than any Issuer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of Purchaser in connection with the sale of any Shares.

(mm) Solvency. Based on the consolidated financial condition of the Company as of the Closing Date, after giving effect to the receipt by the Company of the proceeds from the sale of the Shares hereunder, (i) the fair saleable value of the Company’s assets exceeds the amount that will be required to be paid on or in respect of the Company’s existing debts and other liabilities (including known contingent liabilities) as they mature, (ii) the Company’s assets do not constitute unreasonably small capital to carry on its business as now conducted and as proposed to be conducted including its capital needs taking into account the particular capital requirements of the business conducted by the Company, consolidated and projected capital requirements and capital availability thereof, and (iii) the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, would be sufficient to pay all amounts on or in respect of its liabilities when such amounts are required to be paid. The Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). The Company has no knowledge of any facts or circumstances which lead it to believe that it will file for reorganization or liquidation under the bankruptcy or reorganization laws of any jurisdiction within one year from the Closing Date. Schedule 3.1(mm) sets forth as of the date hereof all outstanding secured and unsecured Indebtedness of the Company or any Subsidiary, or for which the Company or any Subsidiary has commitments. For the purposes of this Agreement, “Indebtedness” means (x) any liabilities for borrowed money or amounts owed in excess of \$50,000 (other than trade accounts payable incurred in the ordinary course of business), (y) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Company’s consolidated balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (z) the present value of any lease payments in excess of \$50,000 due under leases required to be capitalized in accordance with GAAP. Neither the Company nor any Subsidiary is in default with respect to any Indebtedness.

(nn) Regarding Purchaser’s Trading Activity. Anything in this Agreement or elsewhere herein to the contrary notwithstanding (except for Sections 3.2(f) and 4.11 hereof), it is understood and acknowledged by the Company that: (i) Purchaser has not been asked by the Company to agree, nor has Purchaser agreed, to desist from purchasing or selling, long and/or short, securities of the Company, or “derivative” securities based on securities issued by the Company or to hold the Shares for any specified term, (ii) past or future open market or other transactions by Purchaser, specifically including, without limitation, Short Sales or “derivative” transactions, before or after the closing of this or future private placement transactions, may negatively impact the market price of the Company’s publicly-traded securities, (iii) Purchaser, and counter-parties in “derivative” transactions to which Purchaser is a party, directly or indirectly, presently may have a “short” position in the Common Stock and (iv) Purchaser shall not be deemed to have any affiliation with or control over any arm’s length counter-party in any “derivative” transaction. The Company further understands and acknowledges that (y) Purchaser may engage in hedging activities at various times during the period that the Shares are outstanding, and (z) such hedging activities (if any) could reduce the value of the existing stockholders’ equity interests in the Company at and after the time that the hedging activities are being conducted. The Company acknowledges that such aforementioned hedging activities do not constitute a breach of any of the Transaction Documents.

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(oo) Cybersecurity. (i) There has been no security breach or other compromise of or relating to any of the Company’s or any Subsidiary’s information technology and computer systems, networks, hardware, software, data (including the data of its respective customers, employees, suppliers, vendors and any third party data maintained by or on behalf of it), equipment or technology (collectively, “IT Systems and Data”) and (y) the Company and the Subsidiaries have not been notified of, and has no knowledge of any event or condition that would reasonably be expected to result in, any security breach or other compromise to its IT Systems and Data; (ii) the Company and the Subsidiaries are presently in 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 Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification, except as would not, individually or in the aggregate, have a Material Adverse Effect; (iii) the Company and

the Subsidiaries have implemented and maintained commercially reasonable safeguards to maintain and protect its material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and Data; and (iv) the Company and the Subsidiaries have implemented backup and disaster recovery technology consistent with industry standards and practices.

(pp) Subsidiary Rights. The Company has the unrestricted right to vote, and (subject to limitations imposed by applicable law) to receive dividends and distributions on, all capital securities of its Subsidiaries as owned by the Company or any Subsidiary of the Company.

(qq) Promotional Stock Activities. Neither the Company nor any Subsidiary of the Company and none of their respective officers, directors, managers, affiliates or agents have engaged in any stock promotional activity that could give rise to a complaint, inquiry, or trading suspension by the SEC alleging (i) a violation of the anti-fraud provisions of the federal securities laws, (ii) violations of the anti-touting provisions, (iii) improper “gun-jumping; or (iv) promotion without proper disclosure of compensation.

3.2 Representations and Warranties of the Purchaser. Purchaser, for itself and for no other Purchaser, hereby represents and warrants as of the date hereof and as of the Closing Date to the Company as follows (unless as of a specific date therein, in which case they shall be accurate as of such date):

(a) Organization; Authority. Purchaser is either an individual or an entity duly incorporated or formed, validly existing and in good standing under the laws of the jurisdiction of its incorporation or formation with full right, corporate, partnership, limited liability company or similar power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of the Transaction Documents and performance by Purchaser of the transactions contemplated by the Transaction Documents have been duly authorized by all necessary corporate, partnership, limited liability company or similar action, as applicable, on the part of Purchaser. Each Transaction Document to which it is a party has been duly executed by Purchaser, and when delivered by Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of Purchaser, enforceable against it in accordance with its terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors’ rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

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(b) Understandings or Arrangements. Purchaser is acquiring the Shares as principal for its own account and has no direct or indirect arrangement or understandings with any other persons to distribute or regarding the distribution of such Shares (this representation and warranty not limiting Purchaser’s right to sell the Shares or otherwise in compliance with applicable federal and state securities laws). Purchaser is acquiring the Shares hereunder in the ordinary course of its business. Purchaser is acquiring such Shares as principal for his, her or its own account and not with a view to or for distributing or reselling such Shares or any part thereof in violation of the Securities Act or any applicable state securities law, has no present intention of distributing any of such Shares in violation of the Securities Act or any applicable state securities law and has no direct or indirect arrangement or understandings with any other persons to distribute or regarding the distribution of such Shares in violation of the Securities Act or any applicable state securities law (this representation and warranty not limiting Purchaser’s right to sell such Shares pursuant to a registration statement or otherwise in compliance with applicable federal and state securities laws).

(c) Purchaser Status. At the time Purchaser was offered the Shares, it was, and as of the date hereof it is, either: (i) an “accredited investor” as defined in Rule 501(a)(1), (a)(2), (a)(3), (a)(7) or (a)(8) under the Securities Act or (ii) a “qualified institutional buyer” as defined in Rule 144A(a) under the Securities Act.

(d) Experience of Purchaser. Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Shares, and has so evaluated the merits and risks of such investment. Purchaser is able to bear the economic risk of an investment in the Shares and, at the present time, is able to afford a complete loss of such investment.

(e) Access to Information. Purchaser acknowledges that it has had the opportunity to review the Transaction Documents (including all exhibits and schedules thereto) and the SEC Reports and has been afforded, (i) the opportunity to ask such questions as it has deemed necessary of, and to receive answers from, representatives of the Company concerning the terms and conditions of the offering of the Shares and the merits and risks of investing in the Shares; (ii) access to information about the Company and its financial condition, results of operations, business, properties, management and prospects sufficient to enable it to evaluate its investment; and (iii) the opportunity to obtain such additional information that the Company possesses or can acquire without unreasonable effort or expense that is necessary to make an informed investment decision with respect to the investment. Purchaser acknowledges and agrees that neither the Financial Advisor nor any Affiliate of the Financial Advisor has provided Purchaser with any information or advice with respect to the Shares nor is such information or advice necessary or desired. Neither the Financial Advisor nor any Affiliate has made or makes any representation as to the Company or the quality of the Shares and the Financial Advisor and any Affiliate may have acquired non-public information with respect to the Company which Purchaser agrees need not be provided to it. In connection with the issuance of the Shares to Purchaser, neither the Financial Advisor nor any of its Affiliates has acted as a financial advisor or fiduciary to Purchaser.

(f) Certain Transactions and Confidentiality. Other than consummating the transactions contemplated hereunder, Purchaser has not, nor has any Person acting on behalf of or pursuant to any understanding with Purchaser, directly or indirectly executed any purchases or sales, including Short Sales, of the securities of the Company during the period commencing as of the time that Purchaser first received a term sheet (written or oral) from the Company or any other Person representing the Company setting forth the material terms of the transactions contemplated hereunder and ending immediately prior to the execution hereof. Notwithstanding the foregoing, in the event Purchaser is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of Purchaser’s assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of Purchaser’s assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Shares covered by this Agreement. Other than to other Persons party to this Agreement or to Purchaser’s representatives, including, without limitation, its officers, directors, partners, legal and other advisors, employees, agents and Affiliates, Purchaser has maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Notwithstanding the foregoing, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty against, or a prohibition of, any actions with respect to the borrowing of, arrangement to borrow, identification of the availability of, and/or securing of, securities of the Company in order for Purchaser (or its broker or other financial representative) to effect Short Sales or similar transactions in the future.

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(g) General Solicitation. Purchaser is not purchasing the Shares as a result of any advertisement, article, notice or other communication regarding the Shares published in any newspaper, magazine or similar media or broadcast over television or radio or presented at any seminar or, to the knowledge of Purchaser, any other general solicitation or general advertisement.

(h) No Government Recommendation or Approval. Purchaser understands that no United States federal or state agency, or similar agency of any other country, has reviewed, approved, passed upon, or made any recommendation or endorsement of the Company or the purchase of the Shares.

(i) No Intent to Effect a Change of Control; Ownership. Purchaser has no present intent to effect a “change of control” of the Company as such term is

understood under the rules promulgated pursuant to Section 13(d) of the Exchange Act.

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

(k) Reserved.

(l) Restricted Securities. Purchaser understands that the Shares are characterized as “restricted securities” under the U.S. federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such securities may be resold without registration under the Securities Act only in certain limited circumstances.

(m) Legends. It is understood that, except as provided below, certificates or book entry accounts evidencing the Shares may bear the following or any similar legend:

“THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND, ACCORDINGLY, MAY NOT BE TRANSFERRED UNLESS (I) SUCH SECURITIES HAVE BEEN REGISTERED FOR SALE PURSUANT TO THE SECURITIES ACT OF 1933, AS AMENDED, (II) SUCH SECURITIES MAY BE SOLD PURSUANT TO RULE 144, OR (III) THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO IT THAT SUCH TRANSFER MAY LAWFULLY BE MADE WITHOUT REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES.”

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If required by the authorities of any state in connection with the issuance of sale of the Shares, the legend required by such state authority.

The Company acknowledges and agrees that the representations contained in this Section 3.2 shall not modify, amend or affect Purchaser’s right to rely on the Company’s representations and warranties contained in this Agreement or any representations and warranties contained in any other Transaction Document or any other document or instrument executed and/or delivered in connection with this Agreement or the consummation of the transactions contemplated hereby. Notwithstanding the foregoing, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to locating or borrowing shares in order to effect Short Sales or similar transactions in the future.

#### ARTICLE IV. OTHER AGREEMENTS OF THE PARTIES

##### 4.1 Transfer Restrictions.

(a) The Shares and Conversion Shares may only be disposed of in compliance with state and federal securities laws. In connection with any sale, assignment, transfer or other disposition of the Shares or Conversion Shares by a Purchaser pursuant to Rule 144 or pursuant to any other exemption under the Securities Act, upon compliance by the Purchaser with the requirements of this Agreement and applicable laws, if requested by the Purchaser, the Company shall cause the Transfer Agent to timely remove any restrictive legends related to the book entry account holding such Shares and make a new, unlegended entry for such book entry Shares or Conversion Shares sold or disposed of without restrictive legends within two Business Days of the request of the Purchaser, provided that the Company has received from the Purchaser customary representations, opinions of legal counsel and other documentation reasonably acceptable to the Company in connection therewith.

(b) Subject to receipt from the Purchaser by the Company and the Transfer Agent of customary representations and other customary documentation reasonably acceptable to the Company and the Transfer Agent in connection therewith, upon the earliest of such time as (i) the Shares or Conversion Shares have been sold pursuant to an effective registration statement covering the resale of the Shares or Conversion Shares, or (ii) the Shares or Conversion Shares have been sold pursuant to Rule 144 (such earliest date, the “Effective Date”), the Company shall (A) deliver to the Transfer Agent irrevocable instructions that the Transfer Agent shall make a new, unlegended entry for such book entry Shares, and (B) cause its counsel to deliver to the Transfer Agent, no later than two Trading Days after the Effective Date, one or more opinions to the effect that the removal of such legends in such circumstances may be effected under the Securities Act if required by the Transfer Agent to effect the removal of the legend in accordance with such irrevocable instructions and the other applicable provisions of this Agreement. The Company agrees that following such time as such legend is no longer required under this Section, it will, no later than two Trading Days following the delivery by a Purchaser to the Company or the Transfer Agent of a certificate representing Shares or Conversion Shares issued with a restrictive legend, deliver or cause to be delivered to Purchaser a certificate representing such shares that is free from all restrictive and other legends. The Company may not make any notation on its records or give instructions to the Transfer Agent that enlarge the restrictions on transfer set forth in this Section.

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(c) Purchaser agrees with the Company (i) that Purchaser will sell any Shares or Common Stock issuable upon conversion of the Shares pursuant to either the registration requirements of the Securities Act, including any applicable prospectus delivery requirements, or an exemption therefrom, (ii) that if Shares or Common Stock issuable upon conversion of the Shares are sold pursuant to a registration statement, they will be sold in compliance with the plan of distribution set forth therein and (iii) that if, after the Effective Date of the registration statement covering the resale of the Shares, such registration statement is not then effective and the Company has provided notice to Purchaser to that effect, Purchaser will sell shares only in compliance with an exemption from the registration requirements of the Securities Act. Purchaser acknowledges that the removal of the restrictive legend from certificates representing Shares and Conversion Shares as set forth in this Section is predicated upon the Company’s reliance upon this understanding and that any counsel to the Company will be entitled to rely on this acknowledgment in connection with the opinion(s) described in Section 4.1(a).

4.2 Integration. The Company shall not sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) that would be integrated with the offer or sale of the Shares for purposes of the rules and regulations of any Trading Market such that it would require shareholder approval prior to the closing of such other transaction unless shareholder approval is obtained before the closing of such subsequent transaction.

4.3 Securities Laws Disclosure; Publicity. The Company shall, during the Disclosure Window, (a) issue a press release disclosing the material terms of the transactions contemplated hereby, and (b) file a Current Report on Form 8-K, including the Transaction Documents as exhibits thereto, with the Commission within the time required by the Exchange Act. From and after the issuance of such press release, the Company represents to the Purchaser that it shall have publicly disclosed all material, non-public information delivered to any of the Purchaser by the Company or any of its Subsidiaries, or any of their respective officers, directors, employees or agents in connection with the transactions contemplated by the Transaction Documents. In addition, effective upon the issuance of such press release, the Company acknowledges and agrees that any and all confidentiality or similar obligations under any agreement, whether written or oral, between the Company, any of its Subsidiaries or any of their respective officers, directors, agents, employees or Affiliates on the one hand, and any of the Purchaser or any of their Affiliates on the other hand, shall terminate. The Company and Purchaser shall consult

with each other in issuing any other press releases with respect to the transactions contemplated hereby, and neither the Company nor Purchaser shall issue any such press release nor otherwise make any such public statement without the prior consent of the Company, with respect to any press release of Purchaser, or without the prior consent of Purchaser, with respect to any press release of the Company, which consent shall not unreasonably be withheld or delayed, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication. Notwithstanding the foregoing, the Company shall not publicly disclose the name of Purchaser, or include the name of Purchaser in any filing with the Commission or any regulatory agency or Trading Market, without the prior written consent of Purchaser, except (a) as required by federal securities law in connection with the filing of final Transaction Documents with the Commission and (b) to the extent such disclosure is required by law or Trading Market regulations, in which case the Company shall provide the Purchaser with prior notice of such disclosure permitted under this clause (b).

**4.4 Shareholder Rights Plan.** No claim will be made or enforced by the Company or, with the consent of the Company, by any other Person, that Purchaser is an “Acquiring Person” under any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or similar anti-takeover plan or arrangement in effect or hereafter adopted by the Company, or that Purchaser could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Shares under the Transaction Documents or under any other agreement between the Company and the Purchaser.

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**4.5 Non-Public Information.** Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, which shall be disclosed pursuant to Section 4.3, the Company covenants and agrees that neither it, nor any other Person acting on its behalf will provide Purchaser or its agents or counsel with any information that constitutes, or the Company reasonably believes constitutes, material non-public information, unless prior thereto Purchaser shall have consented to the receipt of such information and agreed with the Company to keep such information confidential. The Company understands and confirms that Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company. To the extent that the Company delivers any material, non-public information to a Purchaser without Purchaser’s consent, the Company hereby covenants and agrees that Purchaser shall not have any duty of confidentiality to the Company, any of its Subsidiaries, or any of their respective officers, directors, agents, employees or Affiliates, or a duty to the Company, any of its Subsidiaries or any of their respective officers, directors, agents, employees or Affiliates not to trade on the basis of, such material, non-public information, provided that the Purchaser shall remain subject to applicable law. To the extent that any notice provided pursuant to any Transaction Document constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such material non-public information with the Commission pursuant to a Current Report on Form 8-K. The Company understands and confirms that the Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company.

**4.6 Use of Proceeds.** The Company shall use the net proceeds from the sale of the Shares hereunder as set forth on Schedule 4.6 attached hereto following the Closing.

**4.7 Indemnification of Purchaser.** Subject to the provisions of this Section 4.7, the Company will indemnify and hold Purchaser and its directors, officers, managers, advisors, brokers, shareholders, members, partners, employees and agents (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title), each Person who controls Purchaser (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, managers, advisors, brokers, shareholders, agents, members, partners or employees (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title) of such controlling persons (each, a “Purchaser Party”) harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, costs and reasonable expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys’ fees and costs of investigation that any such Purchaser Party may suffer or incur as a result of or relating to (a) any breach of any of the representations, warranties, covenants or agreements made by the Company in this Agreement or in the other Transaction Documents or (b) any action instituted against the Purchaser Parties in any capacity, or any of them or their respective Affiliates, by any stockholder of the Company who is not an Affiliate of such Purchaser Party, with respect to any of the transactions contemplated by the Transaction Documents (unless such action is based upon a material breach of such Purchaser Party’s representations, warranties or covenants under the Transaction Documents or any agreements or understandings such Purchaser Party may have with any such stockholder or any violations by such Purchaser Party of state or federal securities laws or any conduct by such Purchaser Party which is finally judicially determined to constitute fraud, gross negligence or willful misconduct). If any action shall be brought against any Purchaser Party in respect of which indemnity may be sought pursuant to this Agreement, such Purchaser Party shall promptly notify the Company in writing, and the Company shall have the right to assume the defense thereof with counsel of its own choosing reasonably acceptable to the Purchaser Party. Any Purchaser Party shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Purchaser Party except to the extent that (x) the employment thereof has been specifically authorized by the Company in writing, (y) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (z) in such action there is, in the reasonable opinion of counsel, a material conflict on any material issue between the position of the Company and the position of such Purchaser Party, in which case the Company shall be responsible for the reasonable fees and expenses of no more than one such separate counsel. The Company will not be liable to any Purchaser Party under this Agreement (1) for any settlement or compromise of, or consent to the entry of judgement in, any Action or Proceeding by a Purchaser Party effected without the Company’s prior written consent, which shall not be unreasonably withheld or delayed; or (2) to the extent, but only to the extent that a loss, claim, damage or liability is attributable to any Purchaser Party’s breach of any of the representations, warranties, covenants or agreements made by such Purchaser Party in this Agreement or in the other Transaction Documents. The indemnification required by this Section 4.7 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or are incurred. The indemnity agreements contained herein shall be in addition to any cause of action or similar right of any Purchaser Party against the Company or others and any liabilities the Company may be subject to pursuant to law.

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**4.8 Listing of Common Stock.** The Company hereby agrees to use best efforts to maintain the listing of the Common Stock on the Trading Market on which it is currently listed. The Company will comply in all respects with the Company’s reporting, filing and other obligations under the bylaws or rules of the Trading Market. For so long as the Company maintains a listing or quotation of the Common Stock on a Trading Market, the Company agrees to maintain the eligibility of the Common Stock for electronic transfer through the Depository Trust Company or another established clearing corporation, including, without limitation, by timely payment of fees to the Depository Trust Company or such other established clearing corporation in connection with such electronic transfer.

**4.9 Restrictions on Sale, Conversion and Voting of Preferred Stock.**

(a) From the date hereof up to and including the Authorized Common Stock Increase Date, Purchaser, covenants that Purchaser will not convert any Shares and Purchaser will not transfer, offer, sell, contract to sell, hypothecate, pledge or otherwise dispose of (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise)) any Shares or shares of Common Stock issuable upon conversion of the Shares.

(b) Purchaser covenants to (i) vote, and, if applicable, shall cause its Affiliates to vote, all shares of Series C Stock owned by Purchaser or its Affiliates, as applicable, in favor of any resolution presented to the shareholders of the Company for the purpose of obtaining the Stockholder Approvals, and (ii) promptly upon request by the Company, grant the Company (or its designee) an irrevocable proxy, in form and substance reasonably satisfactory to Purchaser, to vote all shares of Series C Stock in accordance with clause (i) above, in each case, in accordance with the provisions of the Series C Certificate of Designations.

(c) Purchaser covenants to (i) vote, and, if applicable, shall cause its Affiliates to vote, all shares of Series D Stock owned by Purchaser or its Affiliates, as

applicable, on any resolution presented to the stockholders of the Company for purposes of obtaining the Stockholder Approvals and agrees that such shares of Series D Stock shall automatically and without further action of the Purchaser be voted in a manner that “mirrors” the proportions on which the shares of Common Stock (excluding any shares of Common Stock that are not voted) and Series C Stock are voted on the Authorized Common Stock Increase and Name Change, and any adjournment of any meeting of stockholders called for the purpose of voting on the Authorized Common Stock Increase as set forth in the Series D Certificate of Designation; and (ii) promptly upon request by the Company, grant the Company (or its designee) an irrevocable proxy to vote all shares of Series D Stock in accordance with clause (i) above. For the avoidance of doubt, and for illustrative purposes only, if 30% of the aggregate votes cast by Common Stock and Series C Stock voting in connection with the Authorized Common Stock Increase and Name Change are voted against such resolutions and 70% of the aggregate votes cast by Common Stock and Series C Stock voting in connection with the Authorized Common Stock Increase and Name Change are voted in favor thereof, then 30% of the votes cast by the shares of Series D Stock voting in connection with the Authorized Common Stock Increase and Name Change shall vote against the approval of the Authorized Common Stock Increase and Name Change and 70% of such votes shall be cast in favor of such Authorized Common Stock Increase and Name Change.

4.10 Equal Treatment of Purchaser. No consideration (including any modification of any Transaction Document) shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of the Transaction Documents unless the same consideration is also offered to all of the parties to such Transaction Documents. For clarification purposes, this provision constitutes a separate right granted to Purchaser by the Company and negotiated separately by Purchaser, and is intended for the Company to treat the Purchaser as a class and shall not in any way be construed as the Purchaser acting in concert or as a group with respect to the purchase, disposition or voting of Shares or otherwise.

4.11 Certain Transactions and Confidentiality. Purchaser covenants that neither it nor any Affiliate acting on its behalf or pursuant to any understanding with it will execute any purchases or sales, including Short Sales of any of the Company’s securities during the period commencing with the execution of this Agreement and ending at such time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.3. Purchaser covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company pursuant to the initial press release as described in Section 4.3, Purchaser will maintain the confidentiality of the existence and terms of this transaction and the information included in the Disclosure Schedules. Notwithstanding the foregoing, and notwithstanding anything contained in this Agreement to the contrary, the Company expressly acknowledges and agrees that (i) no Purchaser makes any representation, warranty or covenant hereby that it will not engage in effecting transactions in any securities of the Company after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.3, (ii) no Purchaser shall be restricted or prohibited from effecting any transactions in any securities of the Company in accordance with applicable securities laws from and after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.3 and (iii) no Purchaser shall have any duty of confidentiality or duty not to trade in the securities of the Company to the Company or its Subsidiaries after the issuance of the initial press release as described in Section 4.3. Notwithstanding the foregoing in the event Purchaser is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of Purchaser’s assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of Purchaser’s assets, the covenant set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement.

4.12 Form D. The Company agrees to timely file a Form D with respect to the Shares as required under Regulation D and to provide a copy thereof, promptly upon request of Purchaser.

4.13 Registration of Common Stock Issuable upon Conversion of the Shares. The Company shall file a registration statement on Form S-3 (or, if Form S-3 is not then available to the Company, other appropriate form) providing for the resale by the Purchaser of the Conversion Shares no later than forty-five (45) days following the date of this Agreement (the “Filing Deadline”). The Company shall use reasonable best efforts to cause such Form S-3 (or other appropriate form) to be declared effective as soon as possible after filing, but in no event later to sixty (60) days following the Filing Deadline (such date of effectiveness, the “Effectiveness Date”). Once effective, the Company shall use reasonable best efforts to keep such Form S-3 (or other appropriate form) continuously effective and shall cause it to be supplemented and amended to the extent necessary to ensure such Form S-3 (or other appropriate form) is available. The Company shall notify the Purchaser in writing of the effectiveness of such Form S-3 (or other appropriate form) as soon as practicable, but in any event within one (1) Business Day after it becomes effective.

4.14 Stockholder Approvals. The Company shall use its reasonable best efforts to obtain the Stockholder Approvals on or before September 30, 2022.

## ARTICLE V. MISCELLANEOUS

5.1 Termination. This Agreement may be terminated by Purchaser, by written notice to the Company, if the Closing has not been consummated on or before the fifth (5th) Trading Day following the date hereof.

5.2 Fees and Expenses. Except as expressly set forth in the Transaction Documents to the contrary, each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement. The Company shall pay all Transfer Agent fees (including, without limitation, any fees required for same-day processing of any instruction letter delivered by the Company and any exercise notice delivered by a Purchaser), stamp taxes and other taxes and duties levied in connection with the delivery of any Shares to the Purchaser.

5.3 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, contain the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules.

5.4 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of: (a) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or email attachment at the email address as set forth below at or prior to 5:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or email attachment at the email address as set forth below on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (c) the second (2nd) Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth below:

If to the Company:

Synthetic Biologics, Inc.  
19605 Medical Center Drive, Suite 270  
Rockville, Maryland 20850  
Attn: Steven A. Shallcross

with a copy (which shall not constitute notice) to:

Blank Rome LLP  
1271 Avenue of the Americas  
New York, New York 10020  
Attn: Leslie Marlow  
Email: \*\*\*  
If to the Purchaser:

to the address set forth on the signature page hereto.

5.5 Amendments; Waivers. No provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an amendment prior to Closing by the Purchaser, and after Closing, by the Company and the Purchaser or, in the case of a waiver, by the party against whom enforcement of any such waived provision is sought. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right. Any amendment effected in accordance with this Section 5.5 shall be binding upon Purchaser and each holder of Shares and the Company.

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

5.7 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of Purchaser (other than by merger). Purchaser may assign any or all of its rights under this Agreement to any Person to whom Purchaser assigns or transfers any Shares, provided that such transferee agrees in writing to be bound, with respect to the transferred Shares, by the provisions of the Transaction Documents that apply to the Purchaser.

5.8 No Third-Party Beneficiaries. The Financial Advisor shall be the third-party beneficiary of the representations and warranties of the Company in Section 3.1 and the representations and warranties of the Purchaser in Section 3.2. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as otherwise set forth in Section 4.7 and this Section 5.8.

5.9 Governing Law. All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all Actions or Proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement and any other Transaction Documents (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such action or proceeding is improper or is an inconvenient venue for such Proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If any party shall commence an action or proceeding to enforce any provisions of the Transaction Documents, then, in addition to the obligations of the Company under Section 4.7, the prevailing party in such action or proceeding shall be reimbursed by the non-prevailing party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

5.10 Survival. The covenants, representations and warranties contained herein shall survive the Closing and the delivery of the Shares for a period of five (5) years from the Closing.

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

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

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

5.14 Replacement of Shares. If any certificate or instrument evidencing any Shares is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof (in the case of mutilation), or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction. The applicant for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs (including customary indemnity) associated with the issuance of such replacement Shares.

5.15 Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each of the Purchaser and the Company will be entitled to seek specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any action for specific performance of any such obligation the defense that a remedy at law would be adequate.

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

5.17 Independent Nature of Purchaser's Obligations and Rights. The Purchaser have been represented by its own separate legal counsel in its review and negotiation of the Transaction Documents. For reasons of administrative convenience only, the Purchaser and its counsel have chosen to communicate with the Company through the legal counsel of the Financial Advisor. The legal counsel of the Financial Advisor does not represent the Purchaser and only represents the Financial Advisor.

5.18 Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

5.19 Construction. The parties agree that each of them and/or their respective counsel have reviewed and had an opportunity to revise the Transaction Documents and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of the Transaction Documents or any amendments thereto. In addition, each and every reference to share prices and shares of Common Stock in any Transaction Document shall be subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement.

**5.20 WAIVER OF JURY TRIAL, IN ANY ACTION, SUIT, OR PROCEEDING IN ANY JURISDICTION BROUGHT BY ANY PARTY AGAINST ANY OTHER PARTY, THE PARTIES EACH KNOWINGLY AND INTENTIONALLY, TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, HEREBY ABSOLUTELY, UNCONDITIONALLY, IRREVOCABLY AND EXPRESSLY WAIVES FOREVER TRIAL BY JURY.**

*(Signature Pages Follow)*

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

**SYNTHETIC BIOLOGICS, INC.**

By: \_\_\_\_\_ /s/ Steven A. Shallcross

Name: Steven A. Shallcross

Title: Chief Executive Officer

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK  
SIGNATURE PAGE FOR PURCHASER FOLLOWS]

[PURCHASER SIGNATURE PAGE TO SECURITIES PURCHASE AGREEMENT]

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

Name of Purchaser: MSD Credit Opportunity Master Fund, L.P.

Signature of Authorized Signatory of Purchaser: /s/ Marcello Liguori

Name of Authorized Signatory: Marcello Liguori

Title of Authorized Signatory: Managing Director

Email Address of Authorized Signatory: mliguori@msdpartners.com

Address for Notice to Purchaser: 1 Vanderbilt Avenue, 26th Floor, New York, NY 10017

DWAC for Shares: \_\_\_\_\_

Subscription Amount for Series C Stock: \$2,200,000

Shares of Series C Stock: 275,000

Subscription Amount for Series D Stock: \$800,000

Shares of Series D Stock: 100,000

EIN Number: \*\*\*

## Synthetic Biologics Announces \$3 Million Private Placement of Convertible Preferred Stock

Rockville, MD., July 29, 2022 – Synthetic Biologics, Inc. (NYSE American: SYN) (“Synthetic Biologics” or the “Company”), a diversified clinical-stage company developing therapeutics designed to treat diseases in areas of high unmet need, today announced the private placement of 275,000 shares of Series C convertible preferred stock and 100,000 shares of Series D convertible preferred stock. Each share of Series C and Series D preferred stock has a purchase price of \$8.00. Each share of Series C and Series D preferred stock is convertible into shares of the Company’s common stock at an initial conversion price of \$1.22 per share. Shares of the Series C and Series D preferred stock are convertible at the option of the holder at the earlier of (i) the date of the Company’s receipt of shareholder approval for an increase to the authorized shares of common stock of the Company from 20 million to 350 million and (ii) October 26, 2022 (which may be extended to December 31, 2022 if certain conditions are met). The Company has agreed to register the resale of the shares of common stock issuable upon conversion of the Series C and Series D preferred stock by filing a registration statement on Form S-3 (or other appropriate form) no later than forty-five days after the date of the purchase agreement. Total gross proceeds from the offerings, before deducting discounts, financial advisor fees and other estimated offering expenses, is \$3 million.

The Series C and Series D preferred stock permits the holders thereof to vote together with the holders of the Company’s common stock on a proposal to effectuate an increase to the authorized shares of common stock of the Company at the annual meeting of Company shareholders, a name change and an adjournment of either of the foregoing proposals. The Series D preferred stock permits the holder to cast 20,000 votes per share of Series D preferred stock on such proposals, provided, that such votes must be cast in the same proportions as the shares of common stock and Series C preferred stock are voted on such proposals. Except as required by law or expressly provided by the certificate of designation, holders of the Series C and Series D preferred stock will not be permitted to vote on any other matters. The holders of the Series C and Series D preferred stock agreed not to transfer, offer, sell, contract to sell, hypothecate, pledge or otherwise dispose of their shares of preferred stock until earlier of the date of (i) the date of the Company’s receipt of shareholder approval for an increase to the authorized shares of common stock of the Company from 20 million to 350 million and (ii) October 26, 2022 (which may be extended to December 31, 2022 if certain conditions are met).

The offering closed on July 29, 2022. Additional information regarding the securities described above and the terms of the offering are included in a Current Report on Form 8-K to be filed with the United States Securities and Exchange Commission (“SEC”).

A.G.P./Alliance Global Partners is acting as the exclusive financial advisor in connection with the offering.

The Series C and Series D preferred stock and shares of common stock into which these preferred shares are convertible are being issued in reliance upon the exemption from the securities registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the “1933 Act”) and/or Rule 506 of Regulation D as promulgated by SEC under the 1933 Act.

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

### About Synthetic Biologics, Inc.

Synthetic Biologics, Inc. (NYSE American: SYN) is a diversified clinical-stage company developing therapeutics designed to treat diseases in areas of high unmet need. The Company recently consummated the acquisition of VCN Biosciences, S.L. (VCN), which is developing a new oncolytic adenovirus (OV) platform designed for intravenous (IV), intravitreal and antitumoral delivery to trigger tumor cell death, improve access of co-administered cancer therapies to the tumor, and promote a robust and sustained anti-tumor response by the patient’s immune system. The Company’s lead candidates are: (1) VCN-01, an oncolytic adenovirus designed to replicate selectively and aggressively within tumor cells, and to degrade the tumor stroma barrier that serves as a significant physical and immunosuppressive barrier to cancer treatment; (2) SYN-004 (ribaxamase) which is designed to degrade certain commonly used IV beta-lactam antibiotics within the gastrointestinal (GI) tract to prevent (a) microbiome damage, (b) Clostridioides difficile infection (CDI), (c) overgrowth of pathogenic organisms, (d) the emergence of antimicrobial resistance (AMR), and (e) acute graft-versus-host-disease (aGVHD) in allogeneic hematopoietic cell transplant (HCT) recipients, and (3) SYN-020, a recombinant oral formulation of the enzyme intestinal alkaline phosphatase (IAP) produced under cGMP conditions and intended to treat both local GI and systemic diseases. For more information, please visit Synthetic Biologics’ website at [www.syntheticbiologics.com](http://www.syntheticbiologics.com).

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### Forward-Looking Statement

*This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In some cases forward-looking statements can be identified by terminology such as "may," "should," "potential," "continue," "expects," "anticipates," "intends," "plans," "believes," "estimates," and similar expressions, and include statements regarding the annual meeting of stockholders. These forward-looking statements are based on management's expectations and assumptions as of the date of this press release and are subject to a number of risks and uncertainties, many of which are difficult to predict that could cause actual results to differ materially from current expectations and assumptions from those set forth or implied by any forward-looking statements. Important factors that could cause actual results to differ materially from current expectations include, among others, Synthetic Biologics' ability to obtain shareholder approval for an increase to the authorized shares of common stock of the Company at the annual meeting of shareholders, Synthetic Biologics' ability to successfully combine and operate the business of Synthetic Biologics and VCN, Synthetic Biologics' and VCN's product candidates demonstrating safety and effectiveness, as well as results that are consistent with prior results; the ability to complete clinical trials on time and achieve the desired results and benefits, continuing clinical trial enrollment as expected; the ability to obtain regulatory approval for commercialization of product candidates or to comply with ongoing regulatory requirements, regulatory limitations relating to Synthetic Biologics' and VCN's ability to promote or commercialize their product candidates for the specific indications, acceptance of product candidates in the marketplace and the successful development, marketing or sale of Synthetic Biologics' and VCN's products, developments by competitors that render such products obsolete or non-competitive, Synthetic Biologics' and VCN's ability to maintain license agreements, the continued maintenance and growth of Synthetic Biologics' and VCN's patent estate, the ability to continue to remain well financed, and other factors described in Synthetic Biologics' Annual Report on Form 10-K for the year ended December 31, 2021 and its other filings with the SEC, including subsequent periodic reports on Forms 10-Q and current reports on Form 8-K. The information in this release is provided only as of the date of this release, and Synthetic Biologics undertakes no obligation to update any forward-looking statements contained in this release on account of new information, future events, or otherwise, except as required by law.*

### For further information, please contact:

#### Investor Relations:

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917-680-5608

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