

**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): September 29, 2023

SAB BIOTHERAPEUTICS, INC.

(Exact name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-39871
(Commission File Number)

85-3899721
(IRS Employer
Identification No.)

2100 East 54th Street North
Sioux Falls, South Dakota
(Address of Principal Executive Offices)

57104
(Zip Code)

Registrant's Telephone Number, Including Area Code: 605 679-6980

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

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

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$0.0001 par value per share	SABS	The Nasdaq Stock Market LLC
Warrants, each exercisable for one share of Common Stock at an exercise price of \$11.50 per share	SABSW	The Nasdaq Stock Market LLC

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

Emerging growth company

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

Item 1.01 Entry into a Material Definitive Agreement.

Securities Purchase Agreement

On September 29, 2023, SAB Biotherapeutics, Inc. (the “**Company**”) entered into a securities purchase agreement (the “**Securities Purchase Agreement**”) with certain accredited investors (the “**Investors**”), pursuant to which the Company agreed to issue and sell, in a private placement (the “**Offering**”), (i) 7,500 shares of Series A-1 Convertible Preferred Stock, par value \$0.0001 per share, for an aggregate offering price of \$7.5 million (the “**Series A-1 Preferred Stock**”), (ii) tranche A warrants (the “**Preferred Tranche A Warrants**”) to acquire shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock, par value \$0.0001 per share, for an aggregate exercise price of \$70.5 million (the “**Series A-3 Preferred Stock**”), (iii) tranche B warrants to acquire shares of Series A-3 Preferred Stock, par value \$0.0001 per share, for an aggregate exercise price of \$52.0 million (the “**Preferred Tranche B Warrants**”), and (iv) tranche C warrants to purchase Series A-3 Preferred Stock, par value \$0.0001 per share, for an aggregate exercise price of \$130.0 million (the “**Preferred Tranche C Warrants**”) and together with the Preferred Tranche A Warrants, and Preferred Tranche B Warrants, the “**Preferred Warrants**” and the shares underlying the Preferred Warrants, the “**Preferred Warrant Shares**”).

Pursuant to the Certificate of Designation of Preferences, Rights and Limitations of the Series A Convertible Voting Preferred Stock, which is filed as Exhibit 3.1 to this Current Report on Form 8-K (the “**Certificate of Designation**”), each share of Series A-1 Preferred Stock, subject to the Stockholder Approval (as defined below), converts automatically into shares of common stock, par value \$0.0001 per share, of the Company (the “**Common Stock**”) and/or, if applicable, shares of Series A-2 Preferred Stock, par value \$0.0001 per share, of the Company (the “**Series A-2 Preferred Stock**”) and together with the Series A-1 Preferred Stock, the “**Issued Preferred Stock**”), in lieu of Common Stock.

The aggregate exercise prices of the Preferred Tranche A Warrants is approximately \$70.5 million, exercisable for an aggregate of 70,500 shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock, as set forth in the Preferred Tranche A Warrants, commencing on the Issuance Date (as defined in the Form of Preferred Tranche A Warrant) until the earlier of (i) fifteen (15) trading days following the date of public announcement of the fulsome data set from the Sanofi S.A. Protect trial and (ii) December 15, 2023. If any purchaser in the Offering fails to exercise their Preferred Tranche A Warrant in full prior to its expiration date, such purchaser will forfeit all Preferred Tranche A Warrants, Preferred Tranche B Warrants and Preferred Tranche C Warrants issued to such purchaser.

The aggregate exercise price of the Preferred Tranche B Warrants is approximately \$52.0 million, exercisable for an aggregate of 52,000 shares of Series A-3 Preferred Stock commencing on the Exercisability Date (as defined in the Form of Preferred Tranche B Warrant) until the later of (i) 21 days following the Company’s announcement of data from its SAB-142-101 clinical trial and (ii) March 31, 2025.

The aggregate exercise price of the Preferred Tranche C Warrants is approximately \$130.0 million, exercisable for an aggregate of 130,000 shares of Series A-3 Preferred Stock commencing on the Exercisability Date (as defined in the Form of Preferred Tranche C Warrant) until the five (5) year anniversary of the Exercisability Date.

Subject to the terms and limitations contained in the Certificate of Designation, the Series A-1 Preferred Stock issued in the Offering will not become convertible until the Company’s stockholders approve (i) the issuance of all Common Stock issuable upon conversion of the Issued Preferred Stock and the Preferred Warrant Shares, (ii) the issuance of the Preferred Warrant Shares upon exercise of the Preferred Warrants and (iii) an amendment to the Company’s Certificate of Incorporation to increase the number of authorized shares of Common Stock from 490,000,000 to 800,000,000 (collectively, the “**Stockholder Approval**”). On the first trading day following the announcement of the Stockholder Approval, each share of Series A-1 Preferred Stock shall automatically convert into Common Stock, at the conversion price of \$0.63 per share (the “**Conversion Price**”), subject to the terms and limitations contained in the Certificate of Designation, provided that to the extent such conversion would cause a holder of Series A-1 Preferred Stock to exceed the applicable beneficial ownership limitation, such holder will receive shares of Series A-2 Preferred Stock in lieu of Common Stock. Subject to the limitations set forth in the Certificate of Designation, at the option of the holder, each share of Series A-2 Preferred Stock and Series A-3 Preferred Stock shall be convertible into Common Stock, at the Conversion Price, in each case subject to the terms and limitations contained in the Certificate of Designation.

The Offering

The closing of the issuance of Series A-1 Preferred Stock will be effected on or around October 3, 2023, subject to the satisfaction of customary closing conditions. The gross proceeds of the issuance of Series A-1 Preferred Stock are estimated to be approximately \$7.5 million, before deducting fees to be paid to the placement agent and financial advisors of the Company and other estimated offering expenses payable by the Company. The Company intends to use the net proceeds from the Offering for working capital purposes and other general corporate purposes and to advance its SAB-142-101 clinical trial.

The securities issued in the Offering have not been registered under the Securities Act of 1933, as amended (the “**Securities Act**”), and until so registered the securities may not be offered or sold absent registration or availability of an applicable exemption from registration. There is no established public trading market for the Preferred Stock, the Preferred Warrants and Preferred Warrant Shares, and the Company does not intend to list such securities on any national securities exchange or nationally recognized trading system.

Pursuant to the Securities Purchase Agreement, as soon as practicable following the filing of a definitive proxy statement in connection with obtaining the Stockholder Approval, but, in any event, not later than seven (7) days thereafter (the “**Filing Date**”) the Company shall file a resale registration statement on Form S-3 (or Form S-1 if Form S-3 is not available) providing for the resale by the Investors of the Common Stock issuable upon conversion of the Registrable Shares (as defined in the Securities Purchase Agreement) and to use commercially reasonable efforts to cause such resale registration statement declared effective as soon as practicable following the receipt of Stockholder Approval, but no later than ten (10) days following the receipt of Stockholder Approval (or, in the event that the staff of the Securities and Exchange Commission reviews and has written comments to such registration statement, within forty (40) days following the Filing Date). The Company further agreed to take all steps necessary to keep such registration statement effective at all times until all Registrable Shares have been resold, or there remains no Registrable Shares. The Company has agreed to pay a liquidated damages penalty upon certain failures to meet the deadlines set forth above or keep the resale registration statement continuously effective, which penalties will not exceed 6% of the aggregate subscription amount.

The Securities Purchase Agreement contains certain representations and warranties, covenants and indemnities customary for similar transactions. The representations, warranties and covenants contained in the Securities Purchase Agreement were made solely for the benefit of the parties to the Securities Purchase Agreement and may be subject to limitations agreed upon by the contracting parties.

The form of Certificate of Designation, each Preferred Warrant, and the Securities Purchase Agreement are filed as Exhibits 3.1, 4.1, 4.2, 4.3 and 10.1, respectively, to this Current Report on Form 8-K. The foregoing summaries of the terms of the Certificate of Designation, the Series A-1 Preferred Stock, the Series A-2 Preferred Stock, the Series A-3 Preferred Stock, the Preferred Warrants, the Preferred Warrant Shares, and the Common Stock and the terms of the Securities Purchase Agreement are subject to, and qualified in their entirety by, the full text of such documents, where applicable, which are incorporated herein by reference.

No statement in this report or the attached exhibits is an offer to sell or a solicitation of an offer to purchase the Company’s securities, and no offer, solicitation or sale will be made in any jurisdiction in which such offer, solicitation or sale is unlawful.

Item 3.02 Unregistered Sales of Equity Securities.

The information contained above in Item 1.01 and below in Item 8.01 below are hereby incorporated by reference into this Item 3.02. The Preferred Stock and Preferred Warrants are being sold and, upon exercise the securities underlying the Preferred Warrants will be issued without registration under the Securities Act, in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act as a transaction not involving a public offering and Rule 506 promulgated under the Securities Act as sales to accredited investors, and in reliance on similar exemptions under applicable state laws.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On September 29, 2023, pursuant to the terms of side letter executed with Sessa Capital (Master), L.P., the Company’s Board of Directors approved the appointment of Andrew D. Moin, of Sessa Capital (Master), L.P., to the Company’s Board of Directors, effective upon the closing of the Offering.

Andrew Moin is a Partner and Analyst at Sessa Capital, a New York based investment advisor registered with the SEC. Mr. Moin has been with Sessa since 2012, where he works on idea generation, research, and investment implementation. Prior to Sessa, from 2008-2012, Mr. Moin was in the Tax Group at Sullivan & Cromwell LLP, where he advised corporate and other clients on a variety of transactions. In the non-profit realm, Andrew has served on the Young Leadership Committee of the New York City Chapter of the JDRF and was Chair of the Board of Trustees at the Great Neck Community School. Andrew received a B.A. in Economics, with distinction, from Amherst College and a J.D., magna cum laude, from Harvard Law School.

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

Series A Preferred Stock

The information contained above in Item 1.01 is hereby incorporated by reference into this Item 5.03.

Pursuant to the terms of the Securities Purchase Agreement, on October 2, 2023, the Company filed the Certificate of Designation with the Delaware Secretary of State designating 78,000 shares of its authorized and unissued preferred stock as Series A-1 Preferred Stock, 78,000 shares as Series A-2 Preferred Stock and 252,000 shares as Series A-3 Convertible Preferred Stock (all such series of preferred stock referred to herein collectively as “Series A Preferred Stock”), each with a stated value of \$1,000 per share (the “**Original Per Share Price**”). The Certificate of Designation sets forth the rights, preferences and limitations of the shares of Series A Preferred Stock. Terms not otherwise defined in this item shall have the meanings given in the Certificate of Designation.

The following is a summary of the terms of the Series A Preferred Stock:

Dividends. At all times while shares of Series A Preferred Stock are issued and outstanding, holders of Series A Preferred Stock shall be entitled to receive dividends on shares of Series A Preferred Stock equal (on an as-if-converted-to-Common-Stock basis) to and in the same form as dividends actually paid on shares of the Common Stock.

Voting Rights. Holders of the Series A Preferred Stock are entitled to vote together with the Common Stock on an as-if-converted-to-Common-Stock basis. Holders of Common Stock are entitled to one vote for each share of Common Stock held on all matters submitted to a vote of stockholders. Accordingly, holders of Series A Preferred Stock will be entitled to one vote for each whole share of Common Stock into which their Series A Preferred Stock is then-convertible on all matters submitted to a vote of stockholders. Unless and until the Company has obtained the Stockholder Approval, the number of shares of Common Stock that shall be deemed issued upon conversion of the Series A Preferred Stock (for purposes of calculating the number of aggregate votes that the holders of Series A Preferred Stock are entitled to on an as-converted basis) will be equal to that number of shares equal to 19.9% of the Company’s outstanding Common Stock as of the Signing Date (excluding for purposes of the calculation, any securities issued on the Signing Date) (the “**Cap**”), which each such holder being able to vote the number of shares of Series A Preferred Stock held by it relative to the total number of shares of Series A Preferred Stock then outstanding multiplied by the Cap. The holders of the Series A Preferred Stock are not entitled to vote together with the Common Stock with regard to the approval of the issuance of Common Stock upon conversion of the Series A Preferred Stock.

Liquidation. Prior to the Stockholder Approval, in the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company, including a change of control transaction, or Deemed Liquidation Event (any such event, a “**Liquidation**”) the holders of shares of Series A Preferred Stock then outstanding shall be entitled to a preferred liquidation preference equal to the greater of (i) three times (3X) the Original Per Share Price, together with any dividends accrued but unpaid thereon (the “**Liquidation Preference**”) or (ii) such amount per share as would have been payable had all shares of Series A Preferred Stock been converted into Common Stock (without regard to any limitations on conversion set forth in the Certificate of Designation or otherwise) immediately prior to such Liquidation (the amount payable pursuant to this sentence is hereinafter referred to as the “**Series A Liquidation Amount**”).

Redemption. Unless prohibited by Delaware law governing distributions to stockholders, in the event the Stockholder Approval is not obtained within six (6) months following the Issuance Date, shares of Series A-1 Preferred Stock shall be redeemed by the Company at a price equal to the then Liquidation Preference at any time for up to three (3) years following the Issuance Date commencing not more than sixty (60) days after receipt by the Company at any time on or after the one (1) year anniversary of the Issuance Date of written notice from the holders of a majority of the then outstanding shares of Series A-1 Preferred Stock, voting together as a single class (the “**Redemption Request**”) requesting redemption of all shares of Series A Preferred Stock (such date, the “**Redemption Date**”). Upon receipt of a Redemption Request, the Company shall apply all of its assets to any such redemption, and to no other corporate purpose, except to the extent prohibited by Delaware law governing distributions to stockholders. On the Redemption Date, the Company shall redeem, on a pro rata basis in accordance with the number of shares of Series A-1 Preferred Stock owned by each holder, the total number of shares of Series A-1 Preferred Stock outstanding immediately prior to the Redemption Date; provided, however, that Excluded Shares (as defined in the Securities Purchase Agreement) shall not be redeemed and shall be excluded from the calculations set forth in this sentence. If, on the Redemption Date, Delaware law governing distributions to stockholders prevents the Company from redeeming all shares of Series A-1 Preferred Stock to be redeemed, the Company shall ratably redeem the maximum number of shares that it may redeem consistent with such law, and shall redeem the remaining shares as soon as it may lawfully do so under such law.

The foregoing summary of the terms of the Series A Preferred Stock is qualified in its entirety by reference to the text of the Certificate of Designation, which is filed hereto as Exhibit 3.1 and is incorporated herein by reference.

Item 8.01 Other Events.

Agreement with Placement Agent

On September 29, 2023, the Company entered into an engagement letter with Chardan Capital Markets LLC (“Placement Agent”) to act as placement agent to the Company in connection with the Offering (the “Engagement Letter”). The Company will pay to Placement Agent or its designees a cash fee equal to 6% of the aggregate amount of proceeds received by the Company (i) upon the issuance of Series A-1 Preferred Stock of the Company at the closing, (ii) upon the cash exercise of Tranche A Warrants and (iii) upon the cash exercise of Tranche B Warrants. The Company will also issue to Placement Agent or its designees a warrant to purchase up to

5% of the total number of shares of Common Stock of the Company that may be issued upon exercise of the Tranche C Warrants (subject to reduction if such warrants are forfeited). The exercise price of the warrant will be \$0.63 per share, and the warrant is exercisable for a term of five years. In addition, the Company agreed to reimburse Placement Agent up to \$50,000 for reasonable and documented out-of-pocket expenses. Finally, the Company granted Placement Agent a right of first refusal to act as underwriter or placement agent for the first (if any) financing transaction that the Company enters into within 24 months of the initial closing of the transactions contemplated by the Offering.

Press Releases Related to Offering

On October 2, 2023 the Company issued a press release announcing the entry into and the closing of the Offering, a copy of which is attached hereto as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

Exhibit Number	Description
3.1	Certificate of Designation of Preferences, Rights and Limitations of the Series A Convertible Voting Preferred Stock
4.1	Form of Preferred Tranche A Warrant
4.2	Form of Preferred Tranche B Warrant
4.3	Form of Preferred Tranche C Warrant
10.1	Form of Securities Purchase Agreement, dated September 29, 2023 by and among SAB Biotherapeutics, Inc. and the purchasers named therein
99.1	Press release dated October 2, 2023
104	Cover Page Interactive Data File-the cover page XBRL tags are embedded within the Inline XBRL document.

SIGNATURES

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

SAB Biotherapeutics, Inc.

Date: October 2, 2023

By: /s/ Eddie J. Sullivan

Eddie J. Sullivan

Chief Executive Officer

SAB BIOTHERAPEUTICS, INC.

CERTIFICATE OF DESIGNATION OF PREFERENCES, RIGHTS AND LIMITATIONS
OF
SERIES A CONVERTIBLE VOTING PREFERRED STOCKPURSUANT TO SECTION 151 OF THE
DELAWARE GENERAL CORPORATION LAW

SAB BIOTHERAPEUTICS, INC., a Delaware corporation (the “**Corporation**”), in accordance with the provisions of Section 103 of the Delaware General Corporation Law (the “**DGCL**”) does hereby certify that, in accordance with Sections 141(c) and 151 of the DGCL, the following resolution was duly adopted by a committee of the Board of Directors of the Corporation acting upon authority delegated by the Board of Directors, which resolution remains in full force and effect on the date hereof:

RESOLVED, pursuant to authority expressly set forth in the Certificate of Incorporation of the Corporation (the “**Certificate of Incorporation**”), the issuance of a series of Preferred Stock designated as the Series A Convertible Voting Preferred Stock, par value \$0.0001 per share, of the Corporation is hereby authorized and the designation, number of shares, powers, preferences, rights, qualifications, limitations and restrictions thereof (in addition to any provisions set forth in the Certificate of Incorporation that are applicable to the Preferred Stock of all classes and series) are hereby fixed, and the Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Voting Preferred Stock is hereby approved as follows:

SERIES A CONVERTIBLE VOTING PREFERRED STOCK

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

“**Affiliate**” means any person or entity that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person or entity, as such terms are used in and construed under Rule 144 under the Securities Act of 1933, as amended. With respect to a Holder, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Holder will be deemed to be an Affiliate of such Holder.

“**Business Day**” means any day except Saturday, Sunday, any day which shall be 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.

“**Cap**” means the number of shares equal to 19.9% of the Corporation’s outstanding Common Stock as of the Signing Date (excluding for purposes of the calculation, any securities issued on the Signing Date).

“**Commission**” means the U.S. Securities and Exchange Commission.

“**Common Stock**” means the Corporation’s common stock, par value \$0.0001 per share, and stock of any other class of securities into which such securities may hereafter be reclassified into.

“**Conversion Date**” means the date on which the Series A Preferred Stock is converted pursuant to Section 6.

“**Conversion Price**” for the Series A Preferred Stock shall be \$0.630 per share of Common Stock, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization.

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

“**Deemed Liquidation Event**” means (a) a merger or consolidation in which (i) the Corporation is a constituent party or (ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation, except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or

consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or (b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger, consolidation or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

“**DGCL**” shall mean the Delaware General Corporation Law.

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

“**Excluded Shares**” has the meaning set forth in [Section 9\(b\)](#).

“**Holder**” means any holder of Series A Preferred Stock.

“**Issuance Date**” means October 2, 2023.

“**Maximum Permitted Rate**” has the meaning set forth in [Section 9\(d\)](#).

“**Original Per Share Price**” means \$1,000 per share.

“**Person**” means any 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.

“**Proposals**” has the meaning set forth in [Section 8](#).

“**Redemption Date**” has the meaning set forth in [Section 9\(a\)](#).

“**Redemption Notice**” has the meaning set forth in [Section 9\(b\)](#).

“**Redemption Price**” has the meaning set forth in [Section 9\(a\)](#).

“**Redemption Request**” has the meaning set forth in [Section 9\(a\)](#).

“**Requisite Approval**” means the date that the Corporation’s stockholders first approve the Proposals.

“**Requisite Holders**” means Holders of a majority of the then outstanding shares of Series A Preferred Stock, voting together as a single class.

“**Series A Preferred Stock**” has the meaning set forth in [Section 2\(a\)](#).

“**Series A-1 Preferred Stock**” has the meaning set forth in [Section 2\(a\)](#).

“**Series A-2 Preferred Stock**” has the meaning set forth in [Section 2\(a\)](#).

“**Series A-3 Preferred Stock**” has the meaning set forth in [Section 2\(a\)](#).

“**Share Conversion Number**” has the meaning set forth in [Section 6\(b\)](#).

“**Signing Date**” means the effective date of that certain Securities Purchase Agreement for the purchase and sale of the Series A Preferred Stock and Warrants.

“**Trading Day**” means a day on which the Common Stock is traded for any period on a principal securities exchange or if the Common Stock is not traded on a principal securities exchange, on a day that the Common Stock is traded on another securities market on which the Common Stock is then being traded.

“**Tranche A Warrant**” means a warrant to purchase shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock at an exercise price of \$1,000 per share of Series A-1 Preferred Stock or Series A-3 Preferred Stock.

“**Tranche B Warrant**” means a warrant to purchase shares of Series A-3 Preferred Stock at an exercise price of \$1,000 per share of Series A-3 Preferred Stock.

“**Tranche C Warrant**” means a warrant to purchase shares of Series A-3 Preferred Stock at an exercise price of \$1,000 per share of Series A-3 Preferred Stock.

“**Warrants**” means the Tranche A Warrants, the Tranche B Warrants and the Tranche C Warrants issued to the Holders pursuant to the Securities Purchase Agreement.

Section 2. Designation, Amount and Par Value; Assignment; Ranking.

(a) The distinctive serial designations of the series of Preferred Stock designated by this Certificate of Designation shall be designated as the Corporation’s Series A-1 Convertible Preferred Stock (the “**Series A-1 Preferred Stock**”), the Series A-2 Convertible Preferred Stock (the “**Series A-2 Preferred Stock**”) and the Series A-3 Convertible Preferred Stock (the “**Series A-3 Preferred Stock**”) and, together with the Series A-1 Preferred Stock and the Series A-2 Preferred Stock, the “**Series A Preferred Stock**”). Each share of Series A Preferred Stock shall be identical in all respects to every other share of Series A Preferred Stock, except as set forth herein. The number of shares of Series A-1 Preferred Stock so designated shall be 78,000, the number of shares of Series A-2 Preferred Stock so designated shall be 70,501 and the number of shares of Series A-3 Preferred Stock so designated shall be 51,999. The Series A Preferred Stock shall have a par value of \$0.0001 per share.

(b) The Corporation shall register shares of the Series A Preferred Stock, upon records to be maintained by the Corporation’s transfer agent for that purpose (the “**Series A Preferred Stock Register**”), in the name of the Holders thereof from time to time. The Corporation and its transfer agent may deem and treat the registered Holder of shares of Series A Preferred Stock as the absolute owner thereof for the purpose of any conversion thereof and for all other purposes. Shares of Series A Preferred Stock may be issued solely in book-entry form. The Corporation or its transfer agent shall register the transfer of any shares of Series A Preferred Stock in the Series A Preferred Stock Register, upon surrender of the shares of Series A Preferred Stock evidencing such shares to be transferred, to the Corporation’s transfer agent. Upon any such registration or transfer, a new or book-entry notation evidencing the shares of Series A Preferred Stock so transferred shall be issued to the transferee and a new book-entry notation evidencing the remaining portion of the shares not so transferred, if any, shall be issued to the transferring Holder, in each case, within three Business Days. The provisions of this Certificate of Designation are intended to be for the benefit of all Holders from time to time and shall be enforceable by any such Holder.

(c) Prior to the Requisite Approval, the Series A Preferred Stock will be senior to the Common Stock and all other series or classes of stock and equity securities of the Corporation with respect to dividend rights and rights on the distribution of assets on any voluntary or involuntary Liquidation, dissolution or winding up of the affairs of the Corporation.

Section 3. Dividends. At all times following the Issuance Date, while shares of Series A Preferred Stock are issued and outstanding, holders of Series A Preferred Stock shall be entitled to receive, and the Corporation shall pay, dividends on shares of Series A Preferred Stock equal (on an as-if-converted-to-Common-Stock basis and without regard to any limitations on conversion set forth herein or otherwise) 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. If such dividends are not declared and paid in cash, the dividend amounts will be added to the aggregate Liquidation Preference (prior to the Requisite Approval) then outstanding of the Series A Preferred Stock (such dividends will accumulate and will be included (i) in the payments made upon redemption or Liquidation and (ii) for purposes of conversion and voting, but not to exceed 19.9% of the number of shares of Common Stock outstanding as of the Signing Date without the Requisite Approval).

Section 4. Voting Rights.

(a) Subject to the last sentence of this Section 4(a), Section 4(b) and Section 6(f), the Series A Preferred Stock is voting stock. Holders of the Series A Preferred Stock are entitled to vote together with the Common Stock on an as-if-converted-to-Common-Stock basis as determined by dividing the Original Per Share Price with respect to such shares of Series A Preferred Stock by the Conversion Price. Holders of Common Stock are entitled to one vote for each share of Common Stock held on all matters submitted to a vote of stockholders. Accordingly, holders of Series A Preferred Stock will be entitled to one vote for each whole share of Common Stock into which their Series A Preferred Stock is then-convertible on all matters submitted to a vote of stockholders. Unless and until the Corporation has obtained the Requisite Approval, the number of shares of Common Stock that shall be deemed issued upon conversion of the Series A Preferred Stock (for purposes of calculating the number of aggregate votes the Holders of Series A Preferred Stock are entitled to on an as-converted basis) will be equal to that number of shares equal to the Cap, which each such holder being able to vote the number of shares of Series A Preferred Stock held by it relative to the total number of shares of Series A Preferred Stock then outstanding multiplied by the Cap. Notwithstanding the foregoing, the Holders of the Series A Preferred Stock are not entitled to vote together with the Common Stock on an as-if-converted-to-Common-Stock-basis on the Proposals set forth in Section 8 herein.

(b) In addition to Section 4(a), prior to the Requisite Approval, neither the Corporation nor any of its subsidiaries shall take any of the following actions without the consent of the Requisite Holders:

(i) effect any Liquidation;

(ii) materially change the nature of the Corporation's business;

(iii) amend or waive any provisions of their respective organizational documents in a manner that adversely and disproportionately affects the rights, preferences, privileges or power of the shares of Series A Preferred Stock;

(iv) issue additional equity securities senior to or *pari passu* with the Series A Preferred Stock;

(v) pay any dividends on the Common Stock or any equity securities junior to or *pari passu* with the Series A Preferred Stock or repurchase any equity interests (other than repurchases of, or dividends paid (including through payment-in-kind) on, the shares of Series A Preferred Stock or dividends paid solely in the form of equity securities junior to the Series A Preferred Stock);

(vi) incur additional indebtedness in excess of \$500,000; or

(vii) enter into or be a party to any transaction with any director, officer, or employee of the Corporation or any "associate" (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such person or entity except for transactions made in the ordinary course of business and pursuant to reasonable requirements of the Corporation's business and upon fair and reasonable terms that are approved by a majority of the Corporation's Board of Directors;

(viii) sell, assign, license, pledge, or encumber material technology or intellectual property, other than licenses granted in the ordinary course of business; or

(ix) enter into any corporate strategic relationship involving the payment, contribution, or assignment by the Corporation or to the Corporation of money or assets greater than \$500,000.

Section 5. Liquidation.

(a) Prior to the Requisite Approval, in the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, including a change of control transaction, or Deemed Liquidation Event (any such event, a "**Liquidation**") the holders of shares of Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, and in the event of a Deemed Liquidation Event, the holders of shares of Series A Preferred Stock then outstanding shall be entitled to be paid out of the consideration payable to stockholders in such Deemed Liquidation Event or the other proceeds available for

distribution to stockholders, before any payment shall be made to the holders of any other shares of capital stock of the Corporation by reason of their ownership thereof, an amount per share equal to the greater of (i) three times (3X) the Original Per Share Price, together with any dividends declared but unpaid thereon (the "**Liquidation Preference**") or (ii) such amount per share as would have been payable had all shares of Series A Preferred Stock been converted into Common Stock (without regard to any limitations on conversion set forth herein or otherwise) pursuant to **Section 4** immediately prior to such Liquidation (the amount payable pursuant to this sentence is hereinafter referred to as the "**Series A Liquidation Amount**"). If upon any such Liquidation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock the full Liquidation Preference, the holders of shares of Series A Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full. After the payment in full of all Series A Liquidation Amount, the remaining assets of the Corporation available for distribution to its stockholders or, in the case of a Deemed Liquidation Event, the consideration not payable to the holders of shares of Series A Preferred Stock pursuant to the paragraph above shall be distributed among the holders of shares of Common Stock, pro rata based on the number of shares held by each such holder.

(b) Following the Requisite Approval, upon any Liquidation, the assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of the shares of Series A Preferred Stock and Common Stock, pro rata, in the same form of consideration, based on the number of shares held by each such holder, treating for this purpose all shares of Series A Preferred Stock as if they had been converted to Common Stock pursuant to the terms of this Certificate of Designation immediately prior to such Liquidation, without regard to any limitations on conversion set forth herein or otherwise. For the avoidance of doubt, following the Requisite Approval, there will be no Liquidation Preference on the shares of Series A Preferred Stock.

Section 6. Conversion.

(a) No Conversion. Prior to the receipt of the Requisite Approval, subject to **Section 4(a)** above, the Series A Preferred Stock is not convertible by the Holder thereof.

(b) Automatic Conversion. Subject to the limitations set forth in **Section 6(f)**, on the first (1st) Trading Day following the announcement of the Requisite Approval (the "**Automatic Conversion Date**"), each share of Series A-1 Preferred Stock issued and outstanding shall automatically convert into the number of shares of Common Stock equal to the quotient of (A) the Original Per Share Price divided by (B) the Conversion Price (as applicable to the series in question, the "**Share Conversion Number**"); *provided that*, to the extent the Share Conversion Number would cause such Holder's beneficial ownership to exceed the Maximum Percentage (as defined below) as a result of the conversion of the Series A-1 Preferred Stock, such Holder shall receive shares of Series A-2 Preferred Stock in lieu of Common Stock, with respect to the number of shares of Common Stock that would result in the Share Conversion Number exceeding the Maximum Percentage, calculated by dividing such excess shares by \$1,000, rounded down to the nearest whole share of Series A-2 Preferred Stock.

(c) Conversions at Option of Holder. Subject to **Section 6(a)** and the limitations set forth in **Section 6(f)**, at the option of the Holder thereof, each share of Series A-2 Preferred Stock and Series A-3 Preferred Stock not otherwise converted pursuant to **Section 6(b)** above shall be convertible into shares of Common Stock at the applicable Conversion Price, rounded down to the nearest whole share, by converting into the number of shares of Common Stock equal to the Share Conversion Number applicable to the Series A-2 or A-3 Preferred Stock in question.

(d) Mechanics of Conversion.

(i) Notice of Conversion. Holders shall effect conversions by providing the Corporation and its transfer agent with the form of conversion notice attached hereto as Annex A (a "**Notice of Conversion**"), duly completed and executed. The Notice of Conversion must specify the number of shares of Series A-2 Preferred Stock or Series A-3 Preferred Stock to be converted, the number of shares of Series A-2 Preferred Stock or Series A-3 Preferred Stock owned prior to the conversion at issue, and the number of shares of Common Stock to be issued in respect of the conversion at issue. Provided the Corporation's transfer agent is participating in the Depository Trust Company ("**DTC**") Fast Automated Securities Transfer program, the Notice of Conversion may specify, at the Holder's election,

whether the applicable Conversion Shares shall be credited to the DTC participant account nominated by the Holder through DTC's Deposit Withdrawal Agent Commission system (a "**DWAC Delivery**"). The date on which such a conversion shall be deemed effective (an "**Optional Conversion Date**") and together with the Automatic Conversion Date, a "**Conversion Date**"), shall be defined as the Trading Day that the Notice of Conversion, completed and executed, is sent by facsimile or other electronic transmission to, and received during regular business hours by, the Corporation and its transfer agent. The calculations set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error.

(ii) Delivery of Electronic Issuance Upon Conversion. Not later than two (2) Trading Days after the applicable Conversion Date (the "**Share Delivery Date**"), the Corporation's transfer agent shall (a) in the case of a DWAC Delivery (if so requested by the Holder), electronically transfer such Conversion Shares by crediting the DTC participant account nominated by the Holder through DTC's DWAC system or (b) if the shares of Series A Preferred Stock being converted have been issued in global form eligible for book-entry settlement with DTC, the Conversion Shares shall be delivered to the Holder through book-entry transfer through the facilities of DTC. If in the case of a DWAC Delivery, such shares are not electronically delivered to or as directed by, the applicable Holder by the Share Delivery Date, the applicable Holder shall be entitled to elect to rescind such Conversion Notice by written notice to the Corporation and its transfer agent at any time on or before its electronic receipt of such shares, as applicable, in which event the Corporation's transfer agent shall promptly direct the return of any shares of Common Stock delivered to the Holder through the DWAC system, representing the shares of Series A Preferred Stock unsuccessfully tendered for conversion to the Corporation.

(iii) Obligation Absolute. Subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(d)(ii) above, the Corporation's obligation to issue and deliver the Conversion Shares upon conversion of Series A 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. 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; *provided* that the Holder shall not receive duplicate damages for the Corporation's failure to deliver Conversion Shares within the period specified herein. 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.

(iv) Compensation for Buy-In on Failure to Timely Deliver Shares Upon Conversion. If the Corporation fails to effect a DWAC Delivery, as applicable, by the Share Delivery Date pursuant to Section 6(d)(ii) (other than a failure caused by incorrect or incomplete information provided by Holder to the Corporation), and if after such Share Delivery Date such Holder is required to or otherwise purchases (in an open market transaction or otherwise), 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 (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount by which (x) such Holder's total purchase price (including any brokerage commissions) for the shares of 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 A-2 Preferred Stock or Series A-3 Preferred Stock, as applicable, equal to the number of shares of Series A-2 Preferred Stock or Series A-3 Preferred Stock, as applicable, submitted for conversion 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)(ii). 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 A-2 Preferred Stock or Series A-3 Preferred Stock, as applicable, with respect to which the actual sale price (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, within three (3) Trading Days after the occurrence of a Buy-In, indicating the amounts payable to such Holder in respect of such Buy-In together with applicable confirmations and other evidence reasonably requested by the Corporation. 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 shares of Common Stock upon conversion of the shares of Series A-2 Preferred Stock or Series A-3 Preferred Stock as required pursuant to the terms hereof; *provided, however*, that the Holder shall not be entitled to both (i) require the reissuance of the shares of Series A-2 Preferred Stock or Series A-3 Preferred Stock submitted for conversion for which such conversion was not timely honored and (ii) receive 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)(ii).

(v) Reservation of Shares Issuable Upon Conversion. 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 A Preferred Stock, including the Series A Preferred Stock underlying the Warrants, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holders of the Series A Preferred Stock, not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments of Section 7) upon the conversion of all shares of Series A Preferred Stock. Such reservation shall comply without regard to the provisions of Section 6(f). The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid, non-assessable and free and clear of all liens and other encumbrances.

(vi) Fractional Shares. No fractional shares or scrip representing fractional shares of Common Stock shall be issued upon the conversion of the Series A Preferred Stock. All fractional shares shall be rounded down to the nearest whole shares of Common Stock.

(vii) Transfer Taxes. The issuance of book entry notations for Conversion Shares 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 book entry notation, *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 book entry notation upon conversion in a name other than that of the registered Holder(s) of such shares of Series A Preferred Stock and the Corporation shall not be required to issue or deliver such book entry notation 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.

(e) Status as Stockholder. Upon each Conversion Date in which the Series A Preferred Stock converts into Common Stock: (i) the shares of Series A Preferred Stock being converted shall be deemed converted into shares of Common Stock; and (ii) the Holder's rights as a holder of such converted shares of Series A Preferred Stock shall cease and terminate, excepting only the right to receive book entry notations for such shares of Common Stock and to any remedies provided herein or otherwise available at law or in equity to such Holder because of a failure by the Corporation to comply with the terms of this Certificate of Designation. In all cases, the holder shall retain all of its rights and remedies for the Corporation's failure to convert Series A Preferred Stock.

(f) Limitations on Conversion. Except as set forth in this Section 6(f), a Holder shall not have the right to convert any portion of the Series A Preferred Stock and such Series A Preferred Stock shall not be automatically converted, to the extent that after giving effect to such conversion, such Holder (together with such Holder's Affiliates, any other Persons acting as a group together, and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's and the other Attribution Parties for purposes of Section 13(d) of the Exchange Act (such Persons, "Attribution Parties") would beneficially own in excess of 4.99% or 9.99% (at the discretion of the Holder subject to the notice requirement below) (the "Maximum Percentage") of the shares of Common Stock outstanding immediately after giving effect to such conversion. For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by such Person and its Affiliates shall include the number of shares of Common Stock issuable upon conversion of the Series A Preferred Stock with respect to which the determination of such sentence is being made, but shall exclude shares of Common Stock which would be issuable upon (i) exercise of the remaining, unconverted portion of the Series A Preferred Stock beneficially owned by such Person and its

Affiliates and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation beneficially owned by such Person and its Affiliates (including, without limitation, any convertible notes or convertible preferred stock or warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein. For purposes of this Section 6(f), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (1) the Corporation's most recent Form 10-K, Proxy Statement, Form 10-Q, Current Report on Form 8-K or other public filing with the Commission, as the case may be, (2) a more recent public announcement by the Corporation or (3) any other notice by the Corporation or the Corporation's transfer agent setting forth the number of shares of Common Stock outstanding. For any reason at any time, upon the written or oral request of a Holder, where such request indicates that it is being made pursuant to this Section 6(f), 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 A Preferred Stock, by a Holder and its Affiliates since the date as of which such number of outstanding shares of Common Stock was reported. Upon delivery of a written notice to the Corporation, a Holder may from time to time increase or decrease the Maximum Percentage to any other percentage (not in excess of 19.99% of the issued and outstanding Common Stock immediately after giving effect to the issuance of the Common Stock issuable upon conversion of the Series A Preferred Stock if exceeding that limit would result in a change of control under Nasdaq Listing Rule 5635(b) or any successor rule) as specified in such notice; *provided* that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Corporation and (ii) any such increase or decrease will apply only to such Holder and other Attribution Parties and not to any other holder of Series A Preferred Stock, *provided*, for the avoidance of doubt, that no such decrease shall affect the validity of any prior conversion of the Series A Preferred Stock by Holder or any Attribution Party. For purposes of clarity, the shares of Common Stock issuable pursuant to the terms hereof in excess of the Maximum Percentage shall not be deemed to be beneficially owned by a Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the Exchange Act. No prior inability to convert Series A Preferred Stock pursuant to this Section 6(f) shall have any effect on the applicability of the provisions of this Section 6(f) with respect to any subsequent determination of whether Series A Preferred Stock may be converted. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 6(f) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 6(f) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations set forth in this Section 6(f) shall not apply to any conversions of the Series A Preferred that occur prior to and expressly in connection with a Deemed Liquidation Event.

Section 7. Certain Adjustments.

(a) Stock Dividends and Stock Splits. If the Corporation, at any time while any shares of Series A Preferred Stock are outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock with respect to the then outstanding shares of Common Stock; (ii) subdivides outstanding shares of Common Stock into a larger number of shares; or (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, 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 (excluding any treasury shares of the Corporation). 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 or combination.

(b) 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.

(c) Notice to the 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 a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

(ii) **Other Notices.** 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, 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 shares of Series A Preferred Stock, and shall cause to be delivered to each Holder at its last address as it shall appear upon the stock books of the Corporation, at least 10 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; and *provided further*, that in each case, the Corporation will only be required to provide such information to the Holder if such information shall have been made known to the public prior to or in conjunction with such notice being provided to the Holder.

Section 8. Requisite Approval. The Corporation shall, as soon as practicable following the Issuance Date, but not more than twenty-one (21) days thereafter, file a preliminary proxy statement for a vote of its stockholders to approve (i) an amendment to the Company's Certificate of Incorporation to increase the number of authorized shares of Common Stock from 490,000,000 to 800,000,000 and (ii) the issuance of all Conversion Shares (the "**Proposals**"). The Corporation shall, as soon as practicable following notification from the staff of the Commission that it has completed its review of the preliminary proxy statement or that it will not review the preliminary proxy statement, file and mail a definitive proxy statement for the vote of its stockholders to approve the Proposals. The Corporation covenants and agrees that its Board of Directors shall unanimously recommend that the Proposals be approved by the Corporation's stockholders at all meetings in which such Proposals are considered and promptly file the necessary amendments to the Corporation's certificate of incorporation after the Proposals are approved. If the Corporation's stockholders do not approve such Proposals at the first meeting in which they are voted on by stockholders, the Corporation covenants and agrees that it will submit the Proposals for approval of the Corporation's stockholders at least semi-annually until such approval is obtained. From and after the time of the Requisite Approval, the Cap shall no longer be applicable for any purposes hereof.

Section 9. Redemption by the Corporation.

(a) **General.** Unless prohibited by (i) Delaware law governing distributions to stockholders or (ii) applicable stock exchange rule or regulation, six (6) months following the Issuance Date, shares of Series A-1 Preferred Stock shall be redeemed by the Corporation at a price equal to the then Liquidation Preference (the "**Redemption Price**") at any time for up to three (3) years following the Issuance Date commencing not more than sixty (60) days after receipt by the Corporation at any time on or after the six (6) month anniversary of the Issuance Date from the Requisite Holders of written notice (the "**Redemption Request**") requesting redemption of all shares of Series A-1 Preferred Stock (such date, the "**Redemption Date**"). Upon receipt of a Redemption Request, the Corporation shall apply all of its assets to any such redemption, and to no other corporate purpose, except to the extent prohibited by Delaware law governing distributions to stockholders. On the Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Series A-1 Preferred Stock owned by each holder, the total number of shares

of Series A-1 Preferred Stock outstanding immediately prior to the Redemption Date; *provided, however*, that Excluded Shares (as defined below) shall not be redeemed and shall be excluded from the calculations set forth in this sentence. If on the Redemption Date Delaware law governing distributions to stockholders prevents the Corporation from redeeming all shares of Series A-1 Preferred Stock to be redeemed, the Corporation shall ratably redeem the maximum number of shares that it may redeem consistent with such law, and shall redeem the remaining shares as soon as it may lawfully do so under such law.

(b) **Redemption Notice.** The Corporation shall send written notice of the mandatory redemption (the “**Redemption Notice**”) to each holder of record of Series A-1 Preferred Stock not less than forty (40) days prior to the Redemption Date. The Redemption Notice shall state:

(i) the number of shares of Series A-1 Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice;

(ii) the Redemption Price;

(iii) the date upon which the holder’s right to convert such shares terminates (which shall be the date that is one Business Day immediately preceding the Redemption Date); and

(iv) for holders of shares in certificated form, that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Series A-1 Preferred Stock to be redeemed.

If the Corporation receives, on or prior to the twentieth (20th) day after the date of delivery of the Redemption Notice to a holder of Series A-1 Preferred Stock, written notice from such holder that such holder elects to be excluded from the redemption provided in this Section 9, then the shares of Series A-1 Preferred Stock registered on the books of the Corporation in the name of such holder at the time of the Corporation’s receipt of such notice shall thereafter be “**Excluded Shares**.” Excluded Shares shall not be redeemed or redeemable pursuant to this Section 9, whether on the Redemption Date or thereafter.

(c) **Surrender of Certificates; Payment.** On or before the Redemption Date, each holder of shares of Series A-1 Preferred Stock to be redeemed on the Redemption Date, unless such holder has exercised his, her or its right to convert such shares as provided in Section 6, shall, if a holder of shares in certificated form, surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof. In the event less than all of the shares of Series A-1 Preferred Stock represented by a certificate are redeemed, a new certificate, instrument, or book entry representing the unredeemed shares of Series A-1 Preferred Stock shall promptly be issued to such holder.

(d) **Interest.** If any shares of Series A-1 Preferred Stock are not redeemed for any reason on the Redemption Date, all such unredeemed shares shall remain outstanding and entitled to all the rights and preferences provided herein, and the Corporation shall pay interest on the Redemption Price applicable to such unredeemed shares at an aggregate per annum rate equal to 10% (increased by one percent (1%) each month following the Redemption Date until the Redemption Price, and any interest thereon, is paid in full), with such interest to accrue daily in arrears and be compounded annually; *provided, however*, that in no event shall such interest exceed the maximum permitted rate of interest under applicable law (the “**Maximum Permitted Rate**”), *provided, however*, that the Corporation shall take all such actions as may be necessary, including without limitation, making any applicable governmental filings, to cause the Maximum Permitted Rate to be the highest possible rate. In the event any provision hereof would result in the rate of interest payable hereunder being in excess of the Maximum Permitted Rate, the amount of interest required to be paid hereunder shall automatically be reduced to eliminate such excess; *provided, however*, that any subsequent increase in the Maximum Permitted Rate shall be retroactively effective to the Redemption Date to the extent permitted by law.

(e) Rights Subsequent to Redemption. If the Redemption Notice shall have been duly given, and if on the Redemption Date the Redemption Price (including any accrued and unpaid interest as provided in Section 9(d) above) payable upon redemption of the shares of Series A-1 Preferred Stock to be redeemed on the Redemption Date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor in a timely manner, then notwithstanding that any certificates evidencing any of the shares of Series A-1 Preferred Stock so called for redemption shall not have been surrendered, dividends with respect to such shares of Series A-1 Preferred Stock shall cease to accrue after the Redemption Date and all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Redemption Price (plus accrued and unpaid interest as provided in Section 9(d) above) upon surrender of any such certificate or certificates therefor.

(f) For the avoidance of doubt, the provisions of this Section 9 will cease to apply following the Requisite Approval.

Section 10. Miscellaneous.

(a) Waivers; Amendments. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation. Any waiver by the Corporation or a Holder must be in writing. Notwithstanding any provision in this Certificate of Designation to the contrary, any provision contained herein and any right of the Holders of Series A Preferred Stock granted hereunder may be waived or amended as to all shares of Series A Preferred Stock (and the Holders thereof) upon the written consent of the Holders of a majority of the shares of Series A Preferred Stock then outstanding, unless a higher percentage is required by the DGCL, in which case the written consent of the Holders of not less than such higher percentage shall be required. Any waiver or amendment effected in accordance with this Section 10(a) shall be binding on all the Holders of Series A Preferred Stock, and all of such party's successors and permitted assigns, whether or not any such party, successor or assignee entered into or approved such waiver or amendment.

(b) 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. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

(c) 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.

(d) 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.

(e) Status of Converted Series A Preferred Stock. If any shares of Series A Preferred Stock shall be converted or redeemed by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series A Preferred Stock.

IN WITNESS WHEREOF, SAB Biotherapeutics, Inc. has caused this Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock to be executed by its duly authorized officer this 2nd day of October, 2023.

By: _____

Name: Eddie Sullivan

Title: Chief Executive Officer

[SIGNATURE PAGE TO CERTIFICATE OF DESIGNATION]

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ANNEX A-1

NOTICE OF CONVERSION

(TO BE EXECUTED BY THE REGISTERED HOLDER
IN ORDER TO CONVERT SHARES OF SERIES A-2 PREFERRED STOCK)

The undersigned Holder hereby irrevocably elects to convert the number of shares of Series A-2 Preferred Stock indicated below, represented by stock certificate No(s). (the "**Preferred Stock Certificates**"), into shares of Common Stock of SAB Biotherapeutics, Inc., a Delaware corporation (the "**Corporation**"), as of the date written below. If securities 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. Capitalized terms utilized but not defined herein shall have the meaning ascribed to such terms in that certain Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (the "**Certificate of Designation**") filed by the Corporation with the Delaware Secretary of State on October 2, 2023.

The undersigned Holder's right to convert the shares of Series A-2 Preferred Stock is subject to the Maximum Percentage described in Section 6(f) of the Certificate of Designation. Therefore, the number of shares of Common Stock beneficially owned by the undersigned Holder (together with any Attribution Parties), including the number of shares of Common Stock issuable upon conversion of the Series A-2 Preferred Stock subject to this Notice of Conversion, but excluding (i) exercise of the remaining, unconverted portion of the Series A Preferred Stock beneficially owned by such Person and its Affiliates and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation beneficially owned by such Person and its Affiliates (including, without limitation, any convertible notes or convertible preferred stock or warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein, is 4.99% or 9.99%.

Conversion calculations:

Date to Effect Conversion:

Number of shares of Series A-2 Preferred Stock owned prior to Conversion:

Number of shares of Series A-2 Preferred Stock to be Converted:

Number of shares of Common Stock to be Issued:

Address for delivery of physical certificates:

Or

for DWAC Delivery:

DWAC Instructions:

Broker no:

Account no:

HOLDER

By: _____

Name: _____

Title: _____

Date: _____

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ANNEX A-2
NOTICE OF CONVERSION

(TO BE EXECUTED BY THE REGISTERED HOLDER
IN ORDER TO CONVERT SHARES OF SERIES A-3 PREFERRED STOCK)

The undersigned Holder hereby irrevocably elects to convert the number of shares of Series A-3 Preferred Stock indicated below, represented by stock certificate No(s). _____ (the "**Preferred Stock Certificates**"), into the number of shares of Common Stock of SAB Biotherapeutics, Inc., a Delaware corporation (the "**Corporation**"), equal to the Share Conversion Number, *provided that*, to the extent the Share Conversion Number causes such Holder to exceed the Maximum Percentage (as defined in Section 6(f) of the Certificate of Designation), such Holder shall receive shares of Series A-2 Preferred Stock in lieu of the Share Conversion Number, as of the date written below. If securities 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. Capitalized terms utilized but not defined herein shall have the meaning ascribed to such terms in that certain Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (the "**Certificate of Designation**") filed by the Corporation with the Delaware Secretary of State on October 2, 2023.

The undersigned Holder's right to convert the shares of Series A-3 Preferred Stock is subject to the Maximum Percentage described in Section 6(f) of the Certificate of Designation. Therefore, the number of shares of Common Stock beneficially owned by the undersigned Holder (together with any Attribution Parties), including the number of shares of Common Stock issuable upon conversion of the Series A-3 Preferred Stock subject to this Notice of Conversion, but excluding (i) exercise of the remaining, unconverted portion of the Series A Preferred Stock beneficially owned by such Person and its Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation beneficially owned by such Person and its Attribution Parties (including, without limitation, any convertible notes or convertible preferred stock or warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein, is **4.99%** or **9.99%**.

Conversion calculations:

Date to Effect Conversion:

Number of shares of Series A-3 Preferred Stock owned prior to Conversion:

Number of shares of Series A-3 Preferred Stock to be Converted:

Number of Units to be Issued:

Address for delivery of physical certificates:

Or

for DWAC Delivery:

DWAC Instructions:

Broker no:

Account no:

HOLDER

By: _____

Name: _____

Title: _____

Date: _____

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NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON CONVERSION OR EXERCISE OF THESE SECURITIES HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES AND THE SECURITIES ISSUABLE UPON CONVERSION OR EXERCISE OF THESE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OR (B) AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY AND ITS TRANSFER AGENT OR (II) UNLESS SOLD PURSUANT TO RULE 144 UNDER THE SECURITIES ACT. 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.

SAB BIOTHERAPEUTICS, INC.

TRANCHE A WARRANT TO PURCHASE SERIES A PREFERRED STOCK

Warrant No.: []

Number of Warrant Shares: []

Date of Issuance: [], 2023 ("**Issuance Date**")

Expiration Date: The date that is the earlier of (i) fifteen (15) Trading Days following the Mandatory Exercise Trigger and (ii) December 15, 2023 ("**Expiration Date**").

SAB Biotherapeutics, Inc., a Delaware corporation (the "**Company**"), certifies that, for good and valuable consideration, the receipt and sufficiency of which are acknowledged, _____, the registered holder hereof or its permitted assigns (the "**Holder**"), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, upon surrender of this Warrant to Purchase Series A Preferred Stock (including any Warrants to Purchase Series A Preferred Stock issued in exchange, transfer or replacement hereof, the "**Warrant**"), at any time or times on or after the Issuance Date, but not after 5:30 p.m., New York Time, on the Expiration Date, Warrant Shares (as defined below). Except as otherwise defined herein, capitalized terms in this Warrant shall have the meanings set forth in Section 15. This Warrant is one of the warrants to purchase the Series A Preferred Stock issued pursuant to that certain Securities Purchase Agreement, dated as of September 29, 2023 by and between the Company and investors named therein (the "**Securities Purchase Agreement**").

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof, this Warrant must be exercised in full by the Holder prior to the Expiration Date, by delivery of a written notice (which may be by facsimile or email), in the form attached hereto as Exhibit A (the "**Exercise Notice**"), of the Holder's election to exercise this Warrant and payment to the Company of an amount equal to the Exercise Price multiplied by the number of Warrant Shares (the "**Aggregate Exercise Price**") in cash or wire transfer of immediately available funds (a "**Cash Exercise**"). In the event the Holder does not exercise this Warrant (which must be exercised in full) prior to the Expiration Date, this Warrant and the Tranche B Warrants and Tranche C Warrants held by such Holder shall be deemed forfeited and of no further force or effect on the Expiration Date. The Holder shall not be required to surrender this Warrant in order to effect an exercise hereunder; *provided*, that this Warrant is surrendered to the Company's transfer agent by the second (2nd) Trading Day following the date on which the Company's transfer agent for the Warrants and Preferred Stock ("**Transfer Agent**") has received the Exercise Notice. Within one (1) Trading Day following the date of exercise as aforesaid, the Holder shall deliver the Aggregate Exercise Price for the shares by wire transfer or cashier's check drawn on a United States bank. No ink-original Exercise Notice shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Exercise Notice form be required, except as may be required by the Company's transfer agent. On or before the first (1st) Trading Day following the date on which the Company or the Transfer Agent has received the Exercise Notice, the Company or the Transfer Agent shall transmit by email or

facsimile an acknowledgment of confirmation of receipt of the Exercise Notice to the Holder and the Transfer Agent. The Company or the Transfer Agent shall deliver any objection to the Exercise Notice on or before the first (1st) Trading Day following the date on which the Company or the Transfer Agent has received the Exercise Notice. In the event of any discrepancy or dispute, the records of the Company and the Transfer Agent shall be controlling and determinative in the absence of manifest error. On or before the earlier of (i) the second (2nd) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined below) following the date on which the Holder has delivered to the Company a duly completed and executed Exercise Notice (the “**Share Delivery Date**”) and the Aggregate Exercise Price, the Company or its Transfer Agent shall, upon the request of the Holder, issue and register such aggregate number of shares of Series A-1 Preferred Stock, or Series A-3 Preferred Stock, as applicable, to which the Holder is entitled pursuant to such exercise in book-entry form in the name of such Holder thereof in accordance with the instructions delivered to the Transfer Agent by the Company. Upon delivery of the Exercise Notice and the Aggregate Exercise Price, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares, irrespective of the date of delivery of the book-entry accounts evidencing such Warrant Shares. As used herein, “**Standard Settlement Period**” means the standard settlement period, expressed in a number of Trading Days, on the Principal Market with respect to the Common Stock as in effect on the date of delivery of the Exercise Notice.

The Company shall pay any and all taxes that may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant; *provided, however*, that the Company shall not be required to pay any tax which may be payable based on the income of the Holder or in respect of any transfer involved in the registration of any book-entry accounts for Warrant Shares or Warrants in a name other than that of the Holder or an affiliate thereof. The Holder shall be responsible for all other tax liability that may arise as a result of holding or transferring this Warrant or receiving Warrant Shares upon exercise hereof.

If the Company shall fail for any reason or for no reason to register the Warrant Shares in the Holder’s account for such number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise of this Warrant, then the Holder shall be entitled, but not required, to rescind the applicable previously submitted Exercise Notice and the Company or the Transfer Agent shall return all consideration paid by Holder for such shares upon such rescission. Notwithstanding anything herein to the contrary, the Company shall not be required to make any cash payments to the Holder in lieu of issuance of the Warrant Shares.

(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$1,000 per share of Series A-1 Preferred Stock or Series A-3 Preferred Stock, as applicable, subject to adjustment as provided herein.

(c) No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share that the Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and the number of Warrant Shares shall be adjusted from time to time as follows:

(a) Adjustment upon Subdivision or Combination of Shares of Series A Preferred Stock or Common Stock. If the Company at any time on or after the Issuance Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Series A Preferred Stock or Common Stock into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision will be proportionately reduced and the number of Warrant Shares will be proportionately increased. If the Company at any time on or after the Issuance Date combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Series A Preferred Stock or Common Stock into a smaller number of shares, the Exercise Price in effect immediately prior to such combination will be proportionately increased and the number of Warrant Shares will be proportionately decreased. Any adjustment under this Section 2(a) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Par Value. Notwithstanding anything to the contrary in this Warrant, in no event shall the Exercise Price be reduced below the par value of the Series A Preferred Stock.

3. RIGHTS UPON DISTRIBUTION OF ASSETS. If the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “**Distribution**”), at any time after the issuance of this Warrant, then, in each such case:

(a) any Exercise Price in effect immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution shall be reduced, effective as of the close of business on such record date, to a price determined by multiplying such Exercise Price by a fraction of which (i) the numerator shall be the Weighted Average Price of the shares of Common Stock on the Trading Day immediately preceding such record date minus the value of the Distribution (as determined in good faith by the Company’s Board of Directors) applicable to one share of Common Stock, and (ii) the denominator shall be the Weighted Average Price of the shares of Common Stock on the Trading Day immediately preceding such record date; and

(b) the number of Warrant Shares shall be increased to a number of shares equal to the number of shares of Common Stock issuable upon conversion of the Warrant Shares immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution multiplied by the reciprocal of the fraction set forth in the immediately preceding paragraph (a).

4. PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.

(a) Purchase Rights. In addition to any adjustments pursuant to Section 2 above, if at any time prior to the Expiration Date, the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to all of the record holders of any class of shares of Common Stock (the “**Purchase Rights**”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock issuable upon conversion of the Warrant Shares (without regard to any limitations on the exercise of this Warrant) 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.

(b) Fundamental Transactions. If, at any time while this Warrant is outstanding, the Company shall enter into or be party to a Fundamental Transaction, then the Company (or the successor entity) shall purchase this Warrant and all other outstanding Warrants from the Holders by paying to the Holders cash in an amount equal to the Black Scholes Value of the remaining unexercised portion of each Warrant on the effective date of such Fundamental Transaction. For the sake of clarity, such calculation shall assume full exercisability of this Warrant (e.g. without regard to any limitations on the exercise of this Warrant).

5. RESERVATION OF WARRANT SHARES.

(a) The Company covenants that it will at all times after the Issuance Date reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved Series A Preferred Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of this Warrant as herein provided, the number of shares of Series A Preferred Stock which are then issuable and deliverable upon the exercise of this entire Warrant, free from preemptive or any other contingent purchase rights of Persons other than the Holder. The Company covenants that all shares of Series A Preferred Stock so issuable and deliverable shall be, upon issuance and the payment of the applicable Exercise Price in accordance with the terms hereof, duly authorized, validly issued and fully paid and nonassessable. The Company will take all such actions as may be reasonably necessary to ensure that such shares of Series A Preferred Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system upon which the Series A Preferred Stock may be listed. The Company covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock and Series A-2 Preferred Stock for the sole purpose of issuance upon conversion of the Series A Preferred Stock not less than such aggregate number of shares of the Common Stock and/or Series A-2 Preferred Stock as shall be issuable upon the conversion of all outstanding shares of Series A-1 Preferred Stock. The Company

covenants that all shares of Common Stock or Series A-2 Preferred Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid, non-assessable and free and clear of all liens and other encumbrances.

(b) As soon as practicable following the Issuance Date, but not more than twenty-one (21) days thereafter, the Company shall file a preliminary proxy statement for a vote of its stockholders to approve (i) the issuance of all Common Stock upon conversion of all Series A Preferred Stock, (ii) the issuance of the Warrant Shares upon exercise of the Warrants, (iii) the issuance of Series A-3 Preferred Stock upon exercise of the Tranche B Warrants and the Tranche C Warrants and (iv) an amendment to the Company's Certificate of Incorporation to increase the number of authorized shares of Common Stock from 490,000,000 to 800,000,000 (collectively, "**Proposals**"). The Company shall, as soon as practicable following notification from the staff of the Securities and Exchange Commission that it has completed its review of the preliminary proxy statement or that it will not review the preliminary proxy statement, file and mail a definitive proxy statement for the vote of its stockholders to approve the Proposals. The Company covenants and agrees that its Board of Directors shall unanimously recommend that the Proposals be approved by the Company's stockholders at all meetings in which such Proposals are considered and promptly file the necessary amendments to the Company's certificate of incorporation after the Proposals are approved. If the Company's stockholders do not approve such Proposals at the first meeting in which they are voted on by stockholders, the Company covenants and agrees that it will submit the Proposals for approval of the Company's stockholders at least semi-annually until such approval is obtained.

6. WARRANT HOLDER NOT DEEMED A SHAREHOLDER. Except as otherwise specifically provided herein, the Holder, solely in such Person's capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a shareholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a shareholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company.

7. REGISTRATION AND REISSUANCE OF WARRANTS.

(a) Registration of Warrant. The Company or its Transfer Agent shall register this Warrant, upon the records to be maintained by the Company for that purpose (the "**Warrant Register**"), in the name of the record Holder hereof from time to time. The Company and its Transfer Agent may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary. The Company and its Transfer Agent shall also register any transfer, exchange, reissuance or cancellation of any portion of this Warrant in the Warrant Register.

(b) Transfer of Warrant. This Warrant may be offered for sale, sold, transferred or assigned without the consent of the Company, except as may otherwise be required by applicable securities laws. Subject to applicable securities laws, if this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company or its Transfer Agent, as directed by the Company, together with all applicable transfer taxes, whereupon the Company will, or will cause its Transfer Agent to, forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(e)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(e)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred. The acceptance of the new Warrant by the transferee thereof shall be deemed the acceptance by such transferee of all of the rights and obligations in respect of the new Warrant that the Holder has in respect of this Warrant.

(c) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form (which shall not include the posting of any bond) and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company or

its Transfer Agent, as directed by the Company, shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(e)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(d) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company or its Transfer Agent, as directed by the Company, together with all applicable transfer taxes, for a new Warrant or Warrants (in accordance with Section 7(e)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender; *provided, however*, that the Company or its Transfer Agent, as directed by the Company, shall not be required to issue Warrants for fractional shares of Series A Preferred Stock hereunder.

(e) Issuance of New Warrants. Whenever the Company or its Transfer Agent, as directed by the Company, is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant shall (i) be of like tenor with this Warrant, (ii) represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 7(b) or Section 7(c), the Warrant Shares designated by the Holder which, when added to the number of shares of Series A-Preferred Stock underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) have an issuance date, as indicated on the face of such new Warrant, which is the same as the Issuance Date and (iv) have the same rights and conditions as this Warrant.

(f) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

8. NOTICES. Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in accordance with the information set forth in the Warrant Register. The Company shall give written notice to the Holder (i) reasonably promptly following any adjustment of the Exercise Price, setting forth in reasonable detail the calculation of such adjustment and (ii) at least ten (10) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Common Stock, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation; *provided*, that in each case, the Company will only be required to provide such information to the Holder if such information shall have been made known to the public prior to or in conjunction with such notice being provided to the Holder.

9. AMENDMENT AND WAIVER. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the holders of a majority of the then outstanding Tranche A Warrants. Any amendment or waiver effected in accordance with this Section 9 shall be binding on the Company and the holders of all of the then outstanding Tranche A Warrants, successors and permitted assigns, whether or not any such party, successor or assignee entered into or approved such amendment or waiver.

10. LIMITATION OF LIABILITY. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Warrant Shares or as a shareholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

11. GOVERNING LAW. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the State of Delaware, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Delaware.

12. **CONSTRUCTION; HEADINGS.** This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

13. **DISPUTE RESOLUTION.** In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via email or facsimile within five (5) Trading Days of receipt of the Exercise Notice giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within five (5) Trading Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Trading Days thereafter submit via email or facsimile (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than twenty (20) Trading Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error. The expenses of the investment bank and accountant will be borne by the Company unless the investment bank or accountant determines that the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares by the Holder was incorrect by more than 25%, in which case the expenses of the investment bank and accountant will be borne by the Holder.

14. **REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF.** The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder may cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to seek an injunction restraining any breach. Notwithstanding the foregoing or anything else herein to the contrary, if the Company is for any reason unable to issue and deliver Warrant Shares upon exercise of this Warrant as required pursuant to the terms hereof, the Company shall have no obligation to pay to the Holder any cash or other consideration or otherwise "net cash settle" this Warrant, but the Company will promptly (but in no event later than five (5) days) return any portion of the Exercise Price that was paid for any Warrant Shares that are not able to be issued and delivered.

15. **CERTAIN DEFINITIONS.** For purposes of this Warrant, the following terms shall have the following meanings:

(a) "**Black Scholes Value**" means the value of this Warrant based on the Black and Scholes Option Pricing Model obtained from the "OV" function on Bloomberg determined as of the day immediately following the public announcement of the applicable Fundamental Transaction and reflecting (i) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Warrant as of such date of request and (ii) an expected volatility equal to 100%.

(b) "**Bloomberg**" means Bloomberg Financial Markets.

(c) "**Common Stock**" means (i) the Company's shares of Common Stock, \$0.0001 par value per share, and (ii) any share capital into which such Common Stock shall have been changed or any share capital resulting from a reclassification of such Common Stock.

(d) "**Convertible Securities**" means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for shares of Common Stock.

(e) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

(f) “**Fundamental Transaction**” means that (A) the Company shall, directly or indirectly, in one or more related transactions, (i) consolidate or merge with or into (in which the Company is not the surviving corporation) another Person or the stockholders of the Company immediately prior to such merger or consolidation do not own, directly or indirectly, more than 50% of the voting power of the surviving Person immediately after such merger or consolidation, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company to another Person, or (iii) allow another Person to make a purchase, tender or exchange offer that is accepted by the holders of more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer), or (iv) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the 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 purchase agreement or other business combination) or (B) any “person” or “group” (as these terms are used for purposes of Sections 13(d) and 14(d) of the Exchange Act) is or shall become the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of more than 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock.

(g) “**Mandatory Exercise Trigger**” shall mean the later of (i) the date of the public announcement, if any, of the fulsome data set from the Sanofi S.A. Protect trial and (ii) the Company notifying the Holder in writing that the public announcement referenced in clause (i) has occurred.

(h) “**Options**” means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

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

(j) “**Principal Market**” means (i) the Nasdaq Capital Market, or (ii) if the Nasdaq Capital Market is not the principal trading market for the Common Stock, then the principal securities exchange or securities market on which the Common Stock is then traded.

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

(l) “**Series A Preferred Stock**” means Series A-1 Preferred Stock or Series A-3 Preferred Stock.

(m) “**Series A-1 Preferred Stock**” means the Series A-1 Preferred Stock, par value \$0.0001 per share, of the Company.

(n) “**Series A-2 Preferred Stock**” means the Series A-2 Preferred Stock, par value \$0.0001 per share, of the Company.

(o) “**Series A-3 Preferred Stock**” means the Series A-3 Preferred Stock, par value \$0.0001 per share, of the Company.

(p) “**Trading Day**” means any day on which the Common Stock is traded on the Principal Market.

(q) “**Tranche B Warrant**” means the Tranche B Warrant of the Company to acquire shares of Series A-3 Preferred Stock issued to the Holders pursuant to the Securities Purchase Agreement.

(r) “**Tranche C Warrant**” means the Tranche C Warrant of the Company to acquire shares of Series A-3 Preferred Stock issued to the Holders pursuant to the Securities Purchase Agreement.

(s) “**Warrant Shares**” means [_____] fully paid and nonassessable shares of Series A-1 Preferred Stock, if this Warrant is exercised prior to Stockholder Approval (as defined in the Securities Purchase Agreement),

or [] fully paid and nonassessable shares of Series A-3 Preferred Stock, if this Warrant is exercised following Stockholder Approval (as defined in the Securities Purchase Agreement), which number of shares is subject to adjustment as provided herein.

(t) **“Weighted Average Price”** means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg through its “Volume at Price” function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market for such security during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing ask price of any of the market makers for such security as reported by OTC Markets Group Inc. (formerly OTC Markets Inc.). If the Weighted Average Price cannot be calculated for such security on such date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 13 with the term “Weighted Average Price” being substituted for the term “Exercise Price.” All such determinations shall be appropriately adjusted for any share dividend, share split or other similar transaction during such period.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Series A Preferred Stock to be duly executed as of the Issuance Date set out above.

SAB BIOTHERAPEUTICS, INC.

By: _____

Name: Eddie Sullivan

Title: Chief Executive Officer

EXHIBIT A

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS

WARRANT TO PURCHASE SERIES A PREFERRED STOCK

SAB BIOTHERAPEUTICS, INC.

The undersigned holder hereby exercises the right to purchase of the shares of Series A Preferred Stock (“**Warrant Shares**”) of SAB Biotherapeutics, Inc., a Delaware corporation (the “**Company**”), evidenced by the attached Warrant to Purchase Series A Preferred Stock (the “**Warrant**”). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Exercise Price. The Holder intends that payment of the Exercise Price shall be made as a cash exercise under Section 1(a).
2. Cash Exercise. The Holder shall pay the sum of \$_____ to the Company in accordance with the terms of the Warrant.
3. Delivery of Warrant Shares. The Company shall deliver to the holder Warrant Shares in accordance with the terms of the Warrant.

DATED:

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

Registered Holder

Address:

NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON CONVERSION OR EXERCISE OF THESE SECURITIES HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES AND THE SECURITIES ISSUABLE UPON CONVERSION OR EXERCISE OF THESE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OR (B) AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY AND ITS TRANSFER AGENT OR (II) UNLESS SOLD PURSUANT TO RULE 144 UNDER THE SECURITIES ACT. 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.

SAB BIOTHERAPEUTICS, INC.

TRANCHE B WARRANT TO PURCHASE SERIES A-3 PREFERRED STOCK

Warrant No.: []

Number of Warrant Shares: []

Date of Issuance: [], 2023 ("**Issuance Date**")

Expiration Date: The later of (i) fifteen (15) Trading Days following the later of (x) the date of the Company's public announcement of data from its SAB-142-101 clinical trial "Phase I Randomized, Double-Blinded, Placebo-Controlled, Single Ascending Dose Adaptive Design Study Assessing the Safety, Tolerability, Pharmacokinetics and Pharmacodynamics of Intravenous SAB-142" (the "**Data Announcement**") and (y) the Company notifying the Holder in writing that the public announcement referenced in clause (x) has occurred and (ii) March 31, 2025 ("**Expiration Date**").

SAB Biotherapeutics, Inc., a Delaware corporation (the "**Company**"), certifies that, for good and valuable consideration, the receipt and sufficiency of which are acknowledged, _____, the registered holder hereof or its permitted assigns (the "**Holder**"), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, upon surrender of this Warrant to Purchase Series A-3 Preferred Stock (including any Warrants to Purchase Series A-3 Preferred Stock issued in exchange, transfer or replacement hereof, the "**Warrant**"), at any time or times on or after the Exercisability Date, but not after 5:30 p.m., New York Time, on the Expiration Date, Warrant Shares (as defined below). Except as otherwise defined herein, capitalized terms in this Warrant shall have the meanings set forth in Section 15. This Warrant is one of the warrants to purchase the Series A-3 Preferred Stock, par value \$0.0001 per share, of the Company (the "**Series A-3 Preferred Stock**") issued pursuant to that certain Securities Purchase Agreement, dated as of September 29, 2023 by and between the Company and investors named therein (the "**Securities Purchase Agreement**").

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof, this Warrant may be exercised by the Holder on any day on or after the Exercisability Date, in whole or in part (but not as to fractional shares), by delivery of a written notice (which may be by facsimile or email), in the form attached hereto as Exhibit A (the "**Exercise Notice**"), of the Holder's election to exercise this Warrant and payment to the Company of an amount equal to the applicable Exercise Price multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the "**Aggregate Exercise Price**") in cash or wire transfer of immediately available funds (a "**Cash Exercise**"); *provided*, that if the Holder's Tranche A Warrant is not exercised in full prior to the Expiration Date (as defined in the Tranche A Warrant), then this Warrant shall not be exercisable and this Warrant shall be deemed forfeited and of no further force or effect on the Expiration Date of the Tranche A Warrant. The Holder shall not be required to surrender this Warrant in order to effect an exercise hereunder; *provided*, that in the event of an exercise of this Warrant for all Warrant Shares then issuable hereunder, this Warrant is surrendered to the Company's transfer agent by the second (2nd) Trading Day following the date on which the Company's transfer agent for the Warrants and Preferred Stock ("**Transfer Agent**") has received the Exercise Notice. Within one (1) Trading Day following the date of exercise as aforesaid, the Holder shall deliver the Aggregate Exercise Price for the shares specified in the applicable Exercise

Notice by wire transfer or cashier's check drawn on a United States bank. No ink-original Exercise Notice shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Exercise Notice form be required, except as may be required by the Company's transfer agent. On or before the first (1st) Trading Day following the date on which the Company or the Transfer Agent has received the Exercise Notice, the Company or the Transfer Agent shall transmit by email or facsimile an acknowledgment of confirmation of receipt of the Exercise Notice to the Holder and the Transfer Agent. The Company or the Transfer Agent shall deliver any objection to the Exercise Notice on or before the first (1st) Trading Day following the date on which the Company or the Transfer Agent has received the Exercise Notice. In the event of any discrepancy or dispute, the records of the Company and the Transfer Agent shall be controlling and determinative in the absence of manifest error. On or before the earlier of (i) the second (2nd) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined below) following the date on which the Holder has delivered to the Company a duly completed and executed Exercise Notice (the "**Share Delivery Date**") and the Aggregate Exercise Price, the Company or its Transfer Agent shall, upon the request of the Holder, issue and register such aggregate number of shares of Series A-3 Preferred Stock to which the Holder is entitled pursuant to such exercise in book-entry form in the name of such Holder thereof in accordance with the instructions delivered to the Transfer Agent by the Company. Upon delivery of the Exercise Notice and the Aggregate Exercise Price, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the book-entry accounts evidencing such Warrant Shares. As used herein, "**Standard Settlement Period**" means the standard settlement period, expressed in a number of Trading Days, on the Principal Market with respect to the Common Stock as in effect on the date of delivery of the Exercise Notice.

If this Warrant is submitted in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Transfer Agent shall as soon as practicable and in no event later than ten (10) Trading Days after any exercise and at its own expense, issue a new Warrant (in accordance with Section 7(e)) representing the right to purchase the number of Warrant Shares purchasable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. The Company shall pay any and all taxes that may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant; *provided, however*, that the Company shall not be required to pay any tax which may be payable based on the income of the Holder or in respect of any transfer involved in the registration of any book-entry accounts for Warrant Shares or Warrants in a name other than that of the Holder or an affiliate thereof. The Holder shall be responsible for all other tax liability that may arise as a result of holding or transferring this Warrant or receiving Warrant Shares upon exercise hereof.

If the Company shall fail for any reason or for no reason to register the Warrant Shares in the Holder's account for such number of Warrant Shares to which the Holder is entitled upon the Holder's exercise of this Warrant, then the Holder shall be entitled, but not required, to rescind the applicable previously submitted Exercise Notice and the Company or the Transfer Agent shall return all consideration paid by Holder for such shares upon such rescission. Notwithstanding anything herein to the contrary, the Company shall not be required to make any cash payments to the Holder in lieu of issuance of the Warrant Shares.

(b) Exercise Price. For purposes of this Warrant, "**Exercise Price**" means \$1,000 per share of Series A-3 Preferred Stock, subject to adjustment as provided herein.

(c) No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share that the Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and the number of Warrant Shares shall be adjusted from time to time as follows:

(a) Adjustment upon Subdivision or Combination of Shares of Series A-3 Preferred Stock or Common Stock. If the Company at any time on or after the Issuance Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Series A-3 Preferred Stock or Common Stock into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision will be proportionately reduced and the number of Warrant Shares will be proportionately increased. If the Company at any

time on or after the Issuance Date combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Series A-3 Preferred Stock or Common Stock into a smaller number of shares, the Exercise Price in effect immediately prior to such combination will be proportionately increased and the number of Warrant Shares will be proportionately decreased. Any adjustment under this Section 2(a), shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Par Value. Notwithstanding anything to the contrary in this Warrant, in no event shall the Exercise Price be reduced below the par value of the Series A-3 Preferred Stock.

3. RIGHTS UPON DISTRIBUTION OF ASSETS. If the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “**Distribution**”), at any time after the issuance of this Warrant, then, in each such case:

(a) any Exercise Price in effect immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution shall be reduced, effective as of the close of business on such record date, to a price determined by multiplying such Exercise Price by a fraction of which (i) the numerator shall be the Weighted Average Price of the shares of Common Stock on the Trading Day immediately preceding such record date minus the value of the Distribution (as determined in good faith by the Company’s Board of Directors) applicable to one share of Common Stock, and (ii) the denominator shall be the Weighted Average Price of the shares of Common Stock on the Trading Day immediately preceding such record date; and

(b) the number of Warrant Shares shall be increased to a number of shares equal to the number of shares of Common Stock issuable upon conversion of the Warrant Shares immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution multiplied by the reciprocal of the fraction set forth in the immediately preceding paragraph (a).

4. PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.

(a) Purchase Rights. In addition to any adjustments pursuant to Section 2 above, if at any time prior to the Expiration Date, the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to all of the record holders of any class of shares of Common Stock (the “**Purchase Rights**”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock issuable upon conversion of the Warrant Shares (without regard to any limitations on the exercise of this Warrant) 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.

(b) Fundamental Transactions. If, at any time while this Warrant is outstanding, the Company shall enter into or be party to a Fundamental Transaction, then the Company (or the successor entity) shall purchase this Warrant and all other outstanding Warrants from the Holders by paying to the Holders cash in an amount equal to the Black Scholes Value of the remaining unexercised portion of each Warrant on the effective date of such Fundamental Transaction. For the sake of clarity, such calculation shall assume full exercisability of this Warrant (e.g. without regard to any limitations on the exercise of this Warrant).

5. RESERVATION OF WARRANT SHARES.

(a) The Company covenants that it will at all times after the Exercisability Date reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved Series A-3 Preferred Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of this Warrant as herein provided, the number of shares of Series A-3 Preferred Stock which are then issuable and deliverable upon the exercise of this entire Warrant, free from preemptive or any other contingent purchase rights of Persons other than the Holder. The Company covenants that all shares of Series A-3 Preferred Stock so issuable and deliverable shall be, upon issuance and the payment of the applicable Exercise Price in accordance with the terms hereof, duly authorized, validly issued and fully

paid and nonassessable. The Company will take all such actions as may be reasonably necessary to ensure that such shares of Series A-3 Preferred Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system upon which the Series A-3 Preferred Stock may be listed. The Company 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 A-3 Preferred Stock not less than such aggregate number of shares of the Common Stock as shall be issuable upon the conversion of all outstanding shares of Series A-3 Preferred Stock. The Company covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid, non-assessable and free and clear of all liens and other encumbrances.

(b) As soon as practicable following the Issuance Date, but not more than twenty-one (21) days thereafter, the Company shall file a preliminary proxy statement for a vote of its stockholders to approve (i) the issuance of all Common Stock upon conversion of all Series A Preferred Stock, (ii) the issuance of the Warrant Shares upon exercise of the Warrants, (iii) the issuance of Series A Preferred Stock upon exercise of the Tranche A Warrants and the issuance of Series A-3 Preferred Stock upon exercise of the Tranche C Warrants and (iii) an amendment to the Company's Certificate of Incorporation to increase the number of authorized shares of Common Stock from 490,000,000 to 800,000,000 (collectively, "**Proposals**"). The Company shall, as soon as practicable following notification from the staff of the Securities and Exchange Commission that it has completed its review of the preliminary proxy statement or that it will not review the preliminary proxy statement, file and mail a definitive proxy statement for the vote of its stockholders to approve the Proposals. The Company covenants and agrees that its Board of Directors shall unanimously recommend that the Proposals be approved by the Company's stockholders at all meetings in which such Proposals are considered and promptly file the necessary amendments to the Company's certificate of incorporation after the Proposals are approved. If the Company's stockholders do not approve such Proposals at the first meeting in which they are voted on by stockholders, the Company covenants and agrees that it will submit the Proposals for approval of the Company's stockholders at least semi-annually until such approval is obtained.

6. WARRANT HOLDER NOT DEEMED A SHAREHOLDER. Except as otherwise specifically provided herein, the Holder, solely in such Person's capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a shareholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a shareholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company.

7. REGISTRATION AND REISSUANCE OF WARRANTS.

(a) Registration of Warrant. The Company or its Transfer Agent shall register this Warrant, upon the records to be maintained by the Company for that purpose (the "**Warrant Register**"), in the name of the record Holder hereof from time to time. The Company and its Transfer Agent may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary. The Company and its Transfer Agent shall also register any transfer, exchange, reissuance or cancellation of any portion of this Warrant in the Warrant Register.

(b) Transfer of Warrant. This Warrant may be offered for sale, sold, transferred or assigned without the consent of the Company, except as may otherwise be required by applicable securities laws. Subject to applicable securities laws, if this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company or its Transfer Agent, as directed by the Company, together with all applicable transfer taxes, whereupon the Company will, or will cause its Transfer Agent to, forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(e)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(e)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred. The acceptance of the new Warrant by the transferee

thereof shall be deemed the acceptance by such transferee of all of the rights and obligations in respect of the new Warrant that the Holder has in respect of this Warrant.

(c) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form (which shall not include the posting of any bond) and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company or its Transfer Agent, as directed by the Company, shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(e)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(d) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company or its Transfer Agent, as directed by the Company, together with all applicable transfer taxes, for a new Warrant or Warrants (in accordance with Section 7(e)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender; *provided, however*, that the Company or its Transfer Agent, as directed by the Company, shall not be required to issue Warrants for fractional shares of Series A-3 Preferred Stock hereunder.

(e) Issuance of New Warrants. Whenever the Company or its Transfer Agent, as directed by the Company, is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant shall (i) be of like tenor with this Warrant, (ii) represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 7(b) or Section 7(c), the Warrant Shares designated by the Holder which, when added to the number of shares of Series A-3 Preferred Stock underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) have an issuance date, as indicated on the face of such new Warrant, which is the same as the Issuance Date and (iv) have the same rights and conditions as this Warrant.

(f) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

8. NOTICES. Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in accordance with the information set forth in the Warrant Register. The Company shall give written notice to the Holder (i) reasonably promptly following any adjustment of the Exercise Price, setting forth in reasonable detail the calculation of such adjustment and (ii) at least ten (10) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Common Stock, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation; *provided*, that in each case, the Company will only be required to provide such information to the Holder if such information shall have been made known to the public prior to or in conjunction with such notice being provided to the Holder.

9. AMENDMENT AND WAIVER. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the holders of a majority of the then outstanding Tranche B Warrants. Any amendment or waiver effected in accordance with this Section 9 shall be binding on the Company and the holders of all of the then outstanding Tranche B Warrants, successors and permitted assigns, whether or not any such party, successor or assignee entered into or approved such amendment or waiver.

10. LIMITATION OF LIABILITY. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Warrant Shares or as a shareholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

11. GOVERNING LAW. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be

governed by, the internal laws of the State of Delaware, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Delaware.

12. **CONSTRUCTION; HEADINGS.** This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

13. **DISPUTE RESOLUTION.** In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via email or facsimile within five (5) Trading Days of receipt of the Exercise Notice giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within five (5) Trading Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Trading Days thereafter submit via email or facsimile (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than twenty (20) Trading Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error. The expenses of the investment bank and accountant will be borne by the Company unless the investment bank or accountant determines that the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares by the Holder was incorrect by more than 25%, in which case the expenses of the investment bank and accountant will be borne by the Holder.

14. **REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF.** The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder may cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to seek an injunction restraining any breach. Notwithstanding the foregoing or anything else herein to the contrary, if the Company is for any reason unable to issue and deliver Warrant Shares upon exercise of this Warrant as required pursuant to the terms hereof, the Company shall have no obligation to pay to the Holder any cash or other consideration or otherwise "net cash settle" this Warrant, but the Company will promptly (but in no event later than five (5) days) return any portion of the Exercise Price that was paid for any Warrant Shares that are not able to be issued and delivered.

15. **CERTAIN DEFINITIONS.** For purposes of this Warrant, the following terms shall have the following meanings:

(a) "**Black Scholes Value**" means the value of this Warrant based on the Black and Scholes Option Pricing Model obtained from the "OV" function on Bloomberg determined as of the day immediately following the public announcement of the applicable Fundamental Transaction and reflecting (i) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Warrant as of such date of request and (ii) an expected volatility equal to 100%.

(b) "**Bloomberg**" means Bloomberg Financial Markets.

(c) "**Common Stock**" means (i) the Company's shares of Common Stock, \$0.0001 par value per share, and (ii) any share capital into which such Common Stock shall have been changed or any share capital resulting from a reclassification of such Common Stock.

(d) "**Convertible Securities**" means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for shares of Common Stock.

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

(f) “**Exercisability Date**” means the first (1st) Trading Day after all Proposals have been approved by the requisite stockholders of the Company; *provided, however*, in the event of a Fundamental Transaction prior to obtaining shareholder approval of the Proposals, the first (1st) Trading Day following the closing of the Fundamental Transaction shall be deemed the Exercisability Date; *provided, further*, that treatment of this Warrant in the event of a Fundamental Transaction is addressed in Section 4(b) above.

(g) “**Fundamental Transaction**” means that (A) the Company shall, directly or indirectly, in one or more related transactions, (i) consolidate or merge with or into (in which the Company is not the surviving corporation) another Person or the stockholders of the Company immediately prior to such merger or consolidation do not own, directly or indirectly, more than 50% of the voting power of the surviving Person immediately after such merger or consolidation, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company to another Person, or (iii) allow another Person to make a purchase, tender or exchange offer that is accepted by the holders of more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer), or (iv) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the 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 purchase agreement or other business combination) or (B) any “person” or “group” (as these terms are used for purposes of Sections 13(d) and 14(d) of the Exchange Act) is or shall become the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of more than 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock.

(h) “**Options**” means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

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

(j) “**Principal Market**” means (i) the Nasdaq Capital Market, or (ii) if the Nasdaq Capital Market is not the principal trading market for the Common Stock, then the principal securities exchange or securities market on which the Common Stock is then traded.

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

(l) “**Series A-1 Preferred Stock**” means the Series A-1 Preferred Stock, par value \$0.0001 per share, of the Company.

(m) “**Trading Day**” means any day on which the Common Stock is traded on the Principal Market.

(n) “**Tranche A Warrant**” means the Tranche A Warrant of the Company to acquire shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock issued to the Holders pursuant to the Securities Purchase Agreement.

(o) “**Tranche C Warrant**” means the Tranche C Warrant of the Company to acquire shares of Series A-3 Preferred Stock issued to the Holders pursuant to the Securities Purchase Agreement.

(p) “**Warrant Shares**” means [_____] fully paid and nonassessable shares of Series A-3 Preferred Stock, which number of Warrant Shares is subject to adjustment as provided herein.

(q) “**Weighted Average Price**” means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg through its “Volume at Price” function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the

over-the-counter market for such security during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing ask price of any of the market makers for such security as reported by OTC Markets Group Inc. (formerly OTC Markets Inc.). If the Weighted Average Price cannot be calculated for such security on such date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 13 with the term “Weighted Average Price” being substituted for the term “Exercise Price.” All such determinations shall be appropriately adjusted for any share dividend, share split or other similar transaction during such period.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Series A-3 Preferred Stock to be duly executed as of the Issuance Date set out above.

SAB BIOTHERAPEUTICS, INC.

By: _____

Name: Eddie Sullivan

Title: Chief Executive Officer

EXHIBIT A

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS

WARRANT TO PURCHASE SERIES A-3 PREFERRED STOCK

SAB BIOTHERAPEUTICS, INC.

The undersigned holder hereby exercises the right to purchase of the shares of Series A-3 Preferred Stock (“**Warrant Shares**”) of SAB Biotherapeutics, Inc., a Delaware corporation (the “**Company**”), evidenced by the attached Warrant to Purchase Series A-3 Preferred Stock (the “**Warrant**”). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Exercise Price. The Holder intends that payment of the Exercise Price shall be made as a cash exercise under Section 1(a).
2. Cash Exercise. The Holder shall pay the sum of \$_____ to the Company in accordance with the terms of the Warrant.
3. Delivery of Warrant Shares. The Company shall deliver to the holder Warrant Shares in accordance with the terms of the Warrant.

DATED:

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

Registered Holder

Address:

NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON CONVERSION OR EXERCISE OF THESE SECURITIES HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES AND THE SECURITIES ISSUABLE UPON CONVERSION OR EXERCISE OF THESE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OR (B) AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY AND ITS TRANSFER AGENT OR (II) UNLESS SOLD PURSUANT TO RULE 144 UNDER THE SECURITIES ACT. 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.

SAB BIOTHERAPEUTICS, INC.

TRANCHE C WARRANT TO PURCHASE SERIES A-3 PREFERRED STOCK

Warrant No.: []

Number of Warrant Shares: []

Date of Issuance: [], 2023 ("Issuance Date")

Expiration Date: The five (5) year anniversary of the Exercisability Date ("Expiration Date")

SAB Biotherapeutics, Inc., a Delaware corporation (the "**Company**"), certifies that, for good and valuable consideration, the receipt and sufficiency of which are acknowledged, _____, the registered holder hereof or its permitted assigns (the "**Holder**"), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, upon surrender of this Warrant to Purchase Series A-3 Preferred Stock (including any Warrants to Purchase Series A-3 Preferred Stock issued in exchange, transfer or replacement hereof, the "**Warrant**"), at any time or times on or after the Exercisability Date, but not after 5:30 p.m., New York Time, on the Expiration Date, Warrant Shares (as defined below). Except as otherwise defined herein, capitalized terms in this Warrant shall have the meanings set forth in Section 15. This Warrant is one of the warrants to purchase the Series A-3 Preferred Stock, par value \$0.0001 per share, of the Company (the "**Series A-3 Preferred Stock**") issued pursuant to that certain Securities Purchase Agreement, dated as of September 29, 2023 by and between the Company and investors named therein (the "**Securities Purchase Agreement**").

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof, this Warrant may be exercised by the Holder on any day on or after the Exercisability Date, in whole or in part (but not as to fractional shares), by delivery of a written notice (which may be by facsimile or email), in the form attached hereto as Exhibit A (the "**Exercise Notice**"), of the Holder's election to exercise this Warrant and payment to the Company of an amount equal to the applicable Exercise Price multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the "**Aggregate Exercise Price**") in cash or wire transfer of immediately available funds (a "**Cash Exercise**"); *provided*, that if the Holder's Tranche A Warrant is not exercised in full prior to the Expiration Date (as defined in the Tranche A Warrant), then this Warrant shall not be exercisable and this Warrant shall be deemed forfeited and of no further force or effect on the Expiration Date of the Tranche A Warrant. The Holder shall not be required to surrender this Warrant in order to effect an exercise hereunder; *provided*, that in the event of an exercise of this Warrant for all Warrant Shares then issuable hereunder, this Warrant is surrendered to the Company's transfer agent by the second (2nd) Trading Day following the date on which the Company's transfer agent for the Warrants and Preferred Stock ("**Transfer Agent**") has received the Exercise Notice. Within one (1) Trading Day following the date of exercise as aforesaid, the Holder shall deliver the Aggregate Exercise Price for the shares specified in the applicable Exercise Notice by wire transfer or cashier's check drawn on a United States bank. No ink-original Exercise Notice shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Exercise Notice form be required, except as may be required by the Company's transfer agent. On or before the first (1st) Trading Day following the date on which the Company or the Transfer Agent has received the Exercise Notice, the Company or the Transfer Agent shall transmit by email or facsimile an acknowledgment of confirmation of receipt of the Exercise

Notice to the Holder and the Transfer Agent. The Company or the Transfer Agent shall deliver any objection to the Exercise Notice on or before the first (1st) Trading Day following the date on which the Company or the Transfer Agent has received the Exercise Notice. In the event of any discrepancy or dispute, the records of the Company and the Transfer Agent shall be controlling and determinative in the absence of manifest error. On or before the earlier of (i) the second (2nd) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined below) following the date on which the Holder has delivered to the Company a duly completed and executed Exercise Notice (the “**Share Delivery Date**”) and the Aggregate Exercise Price, the Company or its Transfer Agent shall, upon the request of the Holder, issue and register such aggregate number of shares of Series A-3 Preferred Stock to which the Holder is entitled pursuant to such exercise in book-entry form in the name of such Holder thereof in accordance with the instructions delivered to the Transfer Agent by the Company. Upon delivery of the Exercise Notice and the Aggregate Exercise Price, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the book-entry accounts evidencing such Warrant Shares. As used herein, “**Standard Settlement Period**” means the standard settlement period, expressed in a number of Trading Days, on the Principal Market with respect to the Common Stock as in effect on the date of delivery of the Exercise Notice.

If this Warrant is submitted in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Transfer Agent shall as soon as practicable and in no event later than ten (10) Trading Days after any exercise and at its own expense, issue a new Warrant (in accordance with Section 2(e)) representing the right to purchase the number of Warrant Shares purchasable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. The Company shall pay any and all taxes that may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant; *provided, however*, that the Company shall not be required to pay any tax which may be payable based on the income of the Holder or in respect of any transfer involved in the registration of any book-entry accounts for Warrant Shares or Warrants in a name other than that of the Holder or an affiliate thereof. The Holder shall be responsible for all other tax liability that may arise as a result of holding or transferring this Warrant or receiving Warrant Shares upon exercise hereof.

If the Company shall fail for any reason or for no reason to register the Warrant Shares in the Holder’s account for such number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise of this Warrant, then the Holder shall be entitled, but not required, to rescind the applicable previously submitted Exercise Notice and the Company or the Transfer Agent shall return all consideration paid by Holder for such shares upon such rescission. Notwithstanding anything herein to the contrary, the Company shall not be required to make any cash payments to the Holder in lieu of issuance of the Warrant Shares.

(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$1,000 per share of Series A-3 Preferred Stock, subject to adjustment as provided herein.

(c) No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share that the Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and the number of Warrant Shares shall be adjusted from time to time as follows:

(a) Adjustment upon Subdivision or Combination of Shares of Series A-3 Preferred Stock or Common Stock. If the Company at any time on or after the Issuance Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Series A-3 Preferred Stock or Common Stock into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision will be proportionately reduced and the number of Warrant Shares will be proportionately increased. If the Company at any time on or after the Issuance Date combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Series A-3 Preferred Stock or Common Stock into a smaller number of shares, the Exercise Price in effect immediately prior to such combination will be proportionately increased and the number of Warrant Shares will be proportionately decreased. Any adjustment under this Section 2(a) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Par Value. Notwithstanding anything to the contrary in this Warrant, in no event shall the Exercise Price be reduced below the par value of the Series A-3 Preferred Stock.

3. RIGHTS UPON DISTRIBUTION OF ASSETS. If the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “**Distribution**”), at any time after the issuance of this Warrant, then, in each such case:

(a) any Exercise Price in effect immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution shall be reduced, effective as of the close of business on such record date, to a price determined by multiplying such Exercise Price by a fraction of which (i) the numerator shall be the Weighted Average Price of the shares of Common Stock on the Trading Day immediately preceding such record date minus the value of the Distribution (as determined in good faith by the Company’s Board of Directors) applicable to one share of Common Stock, and (ii) the denominator shall be the Weighted Average Price of the shares of Common Stock on the Trading Day immediately preceding such record date; and

(b) the number of Warrant Shares shall be increased to a number of shares equal to the number of shares of Common Stock issuable upon conversion of the Warrant Shares immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution multiplied by the reciprocal of the fraction set forth in the immediately preceding paragraph (a).

4. PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.

(a) Purchase Rights. In addition to any adjustments pursuant to Section 2 above, if at any time prior to the Expiration Date, the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to all of the record holders of any class of shares of Common Stock (the “**Purchase Rights**”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock issuable upon conversion of the Warrant Shares (without regard to any limitations on the exercise of this Warrant) 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.

(b) Fundamental Transactions. If, at any time while this Warrant is outstanding, the Company shall enter into or be party to a Fundamental Transaction, then the Company (or the successor entity) shall purchase this Warrant and all other outstanding Warrants from the Holders by paying to the Holders cash in an amount equal to the Black Scholes Value of the remaining unexercised portion of each Warrant on the effective date of such Fundamental Transaction. For the sake of clarity, such calculation shall assume full exercisability of this Warrant (e.g. without regard to any limitations on the exercise of this Warrant).

5. RESERVATION OF WARRANT SHARES.

(a) The Company covenants that it will at all times after the Exercisability Date reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved Series A-3 Preferred Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of this Warrant as herein provided, the number of shares of Series A-3 Preferred Stock which are then issuable and deliverable upon the exercise of this entire Warrant, free from preemptive or any other contingent purchase rights of Persons other than the Holder. The Company covenants that all shares of Series A-3 Preferred Stock so issuable and deliverable shall be, upon issuance and the payment of the applicable Exercise Price in accordance with the terms hereof, duly authorized, validly issued and fully paid and nonassessable. The Company will take all such actions as may be reasonably necessary to ensure that such shares of Series A-3 Preferred Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system upon which the Series A-3 Preferred Stock may be listed. The Company 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 A-3 Preferred Stock not less than such aggregate number of shares of the Common Stock as shall be issuable upon

the conversion of all outstanding shares of Series A-3 Preferred Stock. The Company covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid, non-assessable and free and clear of all liens and other encumbrances.

(b) As soon as practicable following the Issuance Date, but not more than twenty-one (21) days thereafter, the Company shall file a preliminary proxy statement for a vote of its stockholders to approve (i) the issuance of all Common Stock upon conversion of the Series A Preferred Stock, (ii) the issuance of the Warrant Shares upon exercise of the Warrants, (iii) the issuance of Series A Preferred Stock upon exercise of the Tranche A Warrants and Series A-3 Preferred Stock upon exercise of the Tranche B Warrants and (iii) an amendment to the Company's Certificate of Incorporation to increase the number of authorized shares of Common Stock from 490,000,000 to 800,000,000 (collectively, "**Proposals**"). The Company shall, as soon as practicable following notification from the staff of the Securities and Exchange Commission that it has completed its review of the preliminary proxy statement or that it will not review the preliminary proxy statement, file and mail a definitive proxy statement for the vote of its stockholders to approve the Proposals. The Company covenants and agrees that its Board of Directors shall unanimously recommend that the Proposals be approved by the Company's stockholders at all meetings in which such Proposals are considered and promptly file the necessary amendments to the Company's certificate of incorporation after the Proposals are approved. If the Company's stockholders do not approve such Proposals at the first meeting in which they are voted on by stockholders, the Company covenants and agrees that it will submit the Proposals for approval of the Company's stockholders at least semi-annually until such approval is obtained.

6. WARRANT HOLDER NOT DEEMED A SHAREHOLDER. Except as otherwise specifically provided herein, the Holder, solely in such Person's capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a shareholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a shareholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company.

7. REGISTRATION AND REISSUANCE OF WARRANTS.

(a) Registration of Warrant. The Company or its Transfer Agent shall register this Warrant, upon the records to be maintained by the Company for that purpose (the "**Warrant Register**"), in the name of the record Holder hereof from time to time. The Company and its Transfer Agent may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary. The Company and its Transfer Agent shall also register any transfer, exchange, reissuance or cancellation of any portion of this Warrant in the Warrant Register.

(b) Transfer of Warrant. This Warrant may be offered for sale, sold, transferred or assigned without the consent of the Company, except as may otherwise be required by applicable securities laws. Subject to applicable securities laws, if this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company or its Transfer Agent, as directed by the Company, together with all applicable transfer taxes, whereupon the Company will, or will cause its Transfer Agent to, forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(e)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(e)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred. The acceptance of the new Warrant by the transferee thereof shall be deemed the acceptance by such transferee of all of the rights and obligations in respect of the new Warrant that the Holder has in respect of this Warrant.

(c) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form (which shall not include the posting of any bond) and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company or

its Transfer Agent, as directed by the Company, shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(e)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(d) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company or its Transfer Agent, as directed by the Company, together with all applicable transfer taxes, for a new Warrant or Warrants (in accordance with Section 7(e)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender; *provided, however*, that the Company or its Transfer Agent, as directed by the Company, shall not be required to issue Warrants for fractional shares of Series A-3 Preferred Stock hereunder.

(e) Issuance of New Warrants. Whenever the Company or its Transfer Agent, as directed by the Company, is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant shall (i) be of like tenor with this Warrant, (ii) represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 7(b) or Section 7(c), the Warrant Shares designated by the Holder which, when added to the number of shares of Series A-3 Preferred Stock underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) have an issuance date, as indicated on the face of such new Warrant, which is the same as the Issuance Date and (iv) have the same rights and conditions as this Warrant.

(f) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

8. NOTICES. Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in accordance with the information set forth in the Warrant Register. The Company shall give written notice to the Holder (i) reasonably promptly following any adjustment of the Exercise Price, setting forth in reasonable detail the calculation of such adjustment and (ii) at least ten (10) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Common Stock, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation; *provided*, that in each case, the Company will only be required to provide such information to the Holder if such information shall have been made known to the public prior to or in conjunction with such notice being provided to the Holder.

9. AMENDMENT AND WAIVER. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the holders of a majority of the then outstanding Tranche C Warrants. Any amendment or waiver effected in accordance with this Section 9 shall be binding on the Company and the holders of all of the then outstanding Tranche C Warrants, successors and permitted assigns, whether or not any such party, successor or assignee entered into or approved such amendment or waiver.

10. LIMITATION OF LIABILITY. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Warrant Shares or as a shareholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

11. GOVERNING LAW. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the State of Delaware, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Delaware.

12. CONSTRUCTION; HEADINGS. This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

13. **DISPUTE RESOLUTION.** In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via email or facsimile within five (5) Trading Days of receipt of the Exercise Notice giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within five (5) Trading Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Trading Days thereafter submit via email or facsimile (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than twenty (20) Trading Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error. The expenses of the investment bank and accountant will be borne by the Company unless the investment bank or accountant determines that the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares by the Holder was incorrect by more than 25%, in which case the expenses of the investment bank and accountant will be borne by the Holder.

14. **REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF.** The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder may cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to seek an injunction restraining any breach. Notwithstanding the foregoing or anything else herein to the contrary, if the Company is for any reason unable to issue and deliver Warrant Shares upon exercise of this Warrant as required pursuant to the terms hereof, the Company shall have no obligation to pay to the Holder any cash or other consideration or otherwise "net cash settle" this Warrant, but the Company will promptly (but in no event later than five (5) days) return any portion of the Exercise Price that was paid for any Warrant Shares that are not able to be issued and delivered.

15. **CERTAIN DEFINITIONS.** For purposes of this Warrant, the following terms shall have the following meanings:

(a) "**Black Scholes Value**" means the value of this Warrant based on the Black and Scholes Option Pricing Model obtained from the "OV" function on Bloomberg determined as of the day immediately following the public announcement of the applicable Fundamental Transaction and reflecting (i) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Warrant as of such date of request and (ii) an expected volatility equal to 100%.

(b) "**Bloomberg**" means Bloomberg Financial Markets.

(c) "**Common Stock**" means (i) the Company's shares of Common Stock, \$0.0001 par value per share, and (ii) any share capital into which such Common Stock shall have been changed or any share capital resulting from a reclassification of such Common Stock.

(d) "**Convertible Securities**" means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for shares of Common Stock.

(e) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

(f) "**Exercisability Date**" means the first (1st) Trading Day after all Proposals have been approved by the requisite stockholders of the Company; *provided, however*, in the event of a Fundamental Transaction prior to obtaining shareholder approval of the Proposals, the first (1st) Trading Day following the closing of the Fundamental Transaction shall be deemed the Exercisability Date; *provided, further*, that treatment of this Warrant in the event of a Fundamental Transaction is addressed in Section 4(b) above.

(g) “**Fundamental Transaction**” means that (A) the Company shall, directly or indirectly, in one or more related transactions, (i) consolidate or merge with or into (in which the Company is not the surviving corporation) another Person or the stockholders of the Company immediately prior to such merger or consolidation do not own, directly or indirectly, more than 50% of the voting power of the surviving Person immediately after such merger or consolidation, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company to another Person, or (iii) allow another Person to make a purchase, tender or exchange offer that is accepted by the holders of more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer), or (iv) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the 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 purchase agreement or other business combination) or (B) any “person” or “group” (as these terms are used for purposes of Sections 13(d) and 14(d) of the Exchange Act) is or shall become the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of more than 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock.

(h) “**Options**” means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

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

(j) “**Principal Market**” means (i) the Nasdaq Capital Market, or (ii) if the Nasdaq Capital Market is not the principal trading market for the Common Stock, then the principal securities exchange or securities market on which the Common Stock is then traded.

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

(l) “**Series A-1 Preferred Stock**” means the Series A-1 Preferred Stock, par value \$0.0001 per share, of the Company.

(m) “**Trading Day**” means any day on which the Common Stock is traded on the Principal Market.

(n) “**Tranche A Warrant**” means the Tranche A Warrant of the Company to acquire shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock issued to the Holders pursuant to the Securities Purchase Agreement.

(o) “**Tranche B Warrant**” means the Tranche B Warrant of the Company to acquire shares of Series A-3 Preferred Stock issued to the Holders pursuant to the Securities Purchase Agreement.

(p) “**Warrant Shares**” means [_____] fully paid and nonassessable shares of Series A-3 Preferred Stock, which number of Warrant Shares is subject to adjustment as provided herein.

(q) “**Weighted Average Price**” means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg through its “Volume at Price” function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market for such security during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing ask price of any of the market makers for such security as reported by OTC Markets Group Inc. (formerly OTC Markets Inc.). If the Weighted Average Price cannot be calculated for such security on such date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to [Section 13](#) with the term “Weighted Average

Price” being substituted for the term “Exercise Price.” All such determinations shall be appropriately adjusted for any share dividend, share split or other similar transaction during such period.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Series A-3 Preferred Stock to be duly executed as of the Issuance Date set out above.

SAB BIOTHERAPEUTICS, INC.

By: _____

Name: Eddie Sullivan

Title: Chief Executive Officer

EXHIBIT A

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS

WARRANT TO PURCHASE SERIES A-3 PREFERRED STOCK

SAB BIOTHERAPEUTICS, INC.

The undersigned holder hereby exercises the right to purchase of the shares of Series A-3 Preferred Stock (“**Warrant Shares**”) of SAB Biotherapeutics, Inc., a Delaware corporation (the “**Company**”), evidenced by the attached Warrant to Purchase Series A-3 Preferred Stock (the “**Warrant**”). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Exercise Price. The Holder intends that payment of the Exercise Price shall be made as a cash exercise under Section 1(a).
2. Cash Exercise. The Holder shall pay the sum of \$_____ to the Company in accordance with the terms of the Warrant.
3. Delivery of Warrant Shares. The Company shall deliver to the holder Warrant Shares in accordance with the terms of the Warrant.

DATED:

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

Registered Holder

Address:

SECURITIES PURCHASE AGREEMENT

This Securities Purchase Agreement (this “*Agreement*”) is dated as of September 29, 2023, by and among SAB Biotherapeutics, Inc., a Delaware corporation (the “*Company*”), and each purchaser identified on the signature pages hereto (each, including its successors and assigns, a “*Purchaser*” and collectively, the “*Purchasers*”).

RECITALS

A. The Company is executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the “*Securities Act*”), and Rule 506 of Regulation D (“*Regulation D*”) as promulgated by the United States Securities and Exchange Commission (the “*Commission*”) under the Securities Act, and each Purchaser acknowledges the approach.

B. Each Purchaser, severally and not jointly, wishes to purchase, and the Company wishes to sell, upon the terms and conditions stated in this Agreement, (i) that aggregate number of shares of Series A-1 Preferred Stock, par value \$0.0001 per share, of the Company (the “*Series A-1 Preferred Stock*”), set forth below such Purchaser’s name on the signature page of this Agreement (which aggregate amount for all Purchasers together shall be 7,500 shares of Series A-1 Preferred Stock and shall be collectively referred to herein as the “*Shares*”), (ii) a Tranche A Warrant to acquire shares of Series A-1 Preferred Stock or shares of Series A-3 Preferred Stock, par value \$0.0001 per share, of the Company (the “*Series A-3 Preferred Stock*”), as set forth in the Tranche A Warrant, in substantially the form attached hereto as Exhibit A (the “*Tranche A Warrant*”), (iii) a Tranche B Warrant to acquire shares of Series A-3 Preferred Stock, in substantially the form attached hereto as Exhibit B (the “*Tranche B Warrant*”) and (iv) a Tranche C Warrant to acquire shares of Series A-3 Preferred Stock, in substantially the form attached hereto as Exhibit C (the “*Tranche C Warrant*” and, together with the Tranche A Warrants and Tranche B Warrants, the “*Warrants*”).

C. Pursuant to the Certificate of Designation of the Series A Convertible Preferred Stock, in substantially the form attached hereto as Exhibit D (the “*Certificate of Designation*”), each Share is convertible into shares of common stock, par value \$0.0001 per share, of the Company (the “*Common Stock*”) and/or, if applicable, shares of Series A-2 Preferred Stock, par value \$0.0001 per share, of the Company (the “*Series A-2 Preferred Stock*”), in lieu of Common Stock. The shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock issuable upon exercise of the Warrants collectively are referred to herein as the “*Preferred Warrant Shares*.”

D. Pursuant to the Certificate of Designation, each share of Series A-2 Preferred Stock issuable upon conversion of the Shares and each Preferred Warrant Share issuable upon exercise of the Warrants is convertible into shares of Common Stock. The shares of Common Stock issuable upon conversion of the Shares, the Series A-2 Preferred Stock and the Preferred Warrant Shares collectively are referred to herein as the “*Conversion Shares*.”

E. The Shares, the Warrants, the Series A-2 Preferred Stock issuable upon conversion of the Shares, the Preferred Warrant Shares issuable upon exercise of the Warrants, and the Conversion Shares collectively are referred to herein as the “*Securities*.”

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and the Purchasers hereby 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 shall have the meanings indicated in this Section 1.1:

“*Acquiring Person*” has the meaning set forth in Section 4.6.

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

“*Advance Indemnification Payment*” has the meaning set forth in Section 4.15(c)(iv).

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

“*Agreement*” has the meaning set forth in the Preamble.

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

“*Business Day*” means any day except Saturday, 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*” has the meaning set forth in Section 4.1(f).

“*Certificate of Designation*” has the meaning set forth in the Recitals.

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

“*Closing Date*” means the Trading Day when all of the Transaction Documents have been executed and delivered by the applicable parties thereto, and all of the conditions set forth in Sections 2.1, 2.2, 5.1 and 5.2 hereof are satisfied or waived, as the case may be, or such other date as the parties may agree.

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

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

“*Common Stock Equivalents*” means any securities of the Company or any Subsidiary 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

exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock or other securities that entitle the holder to receive, directly or indirectly, Common Stock.

“*Company*” has the meaning set forth in the Preamble.

“*Company Counsel*” means Dentons US LLP, with offices located at 1221 Avenue of the Americas, New York, NY 10020.

“*Company Covered Person*” means, with respect to the Company as an “issuer” for purposes of Rule 506 promulgated under the Securities Act, any Person listed in the first paragraph of Rule 506(d)(1).

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

“*Company Intellectual Property Rights*” has the meaning set forth in [Section 3.1\(p\)](#).

“*Company’s Knowledge*” means with respect to any statement made to the Company’s Knowledge, that the statement is based upon the actual knowledge of one or more of the executive officers of the Company having responsibility for the matter or matters that are the subject of the statement.

“*Company Party*” has the meaning set forth in [Section 4.15\(c\)\(ii\)](#).

“*Control*” (including the terms “controlling,” “controlled by” or “under common control with”) means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

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

“*Cut Back Shares*” has the meaning set forth in [Section 4.15\(b\)](#).

“*Defaulting Purchaser*” has the meaning set forth in [Section 2.1\(d\)\(i\)](#).

“*DTC*” has the meaning set forth in [Section 4.1\(c\)](#).

“*Effective Date*” has the meaning set forth in [Section 4.15\(a\)\(vii\)](#).

“*Effectiveness Deadline*” has the meaning set forth in [Section 4.15\(a\)\(ii\)](#).

“*Environmental Laws*” has the meaning set forth in [Section 3.1\(dd\)](#).

“*Evaluation Date*” has the meaning set forth in [Section 3.1\(t\)](#).

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

“*Exempt Issuance*” means the issuance of (a) shares of Common Stock or options to employees, officers or directors of the Company pursuant to any stock or option plan duly adopted for such purpose, by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose for services rendered to the Company and (b) shares of Common Stock upon the exercise or exchange of or conversion of any Securities issued hereunder and/or other securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of this Agreement, *provided* that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the

exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities.

“*FDA*” means the United States Food and Drug Administration.

“*Filing Date*” has the meaning set forth in [Section 4.15\(a\)\(i\)](#).

“*Funding Default*” has the meaning set forth in [Section 2.1\(d\)\(i\)](#).

“*GAAP*” means U.S. generally accepted accounting principles, as applied by the Company.

“*Intellectual Property Rights*” means any and all of the following statutory and/or common law rights in any jurisdiction throughout the world: (i) patents, patent applications and patent disclosures; (ii) Internet domain names, trademarks, service marks, trade dress, trade names, logos and corporate names, and registrations and applications for registration thereof together with all translations, transliterations, adaptations, derivations and combinations thereof and including all of the goodwill associated therewith; (iii) copyrights and copyrightable works (registered or unregistered); (iv) trade secrets and other confidential information (including ideas, formulas, recipes, compositions, inventions, discoveries or invention disclosures and improvements (whether patentable or unpatentable and whether or not reduced to practice)), know-how, manufacturing and production processes and techniques, research and development information, drawings, specifications, designs, plans, proposals, non-public data and databases, financial and marketing plans and customer and supplier lists and information; (v) all rights in software; (vi) registrations and applications for any of the foregoing; and (vii) other proprietary, intellectual property and/or industrial rights.

“*Irrevocable Transfer Agent Instructions*” means, with respect to the Company, the Irrevocable Transfer Agent Instructions, in the form of [Exhibit F](#), executed by the Company and delivered to and acknowledged in writing by the Transfer Agent.

“*Legend Removal Date*” has the meaning set forth in [Section 4.1\(c\)](#).

“*Lien*” means any lien, charge, claim, encumbrance, security interest, right of first refusal, preemptive right or other restrictions of any kind.

“*Losses*” has the meaning set forth in [Section 4.15\(c\)\(i\)](#).

“*Material Adverse Effect*” means a material adverse effect on the results of operations, assets, prospects, business or financial condition of the Company and the Subsidiaries, taken as a whole, except that any of the following, either alone or in combination, shall not be deemed a Material Adverse Effect: (i) effects caused by changes or circumstances affecting general market conditions in the U.S. economy or which are generally applicable to the industry in which the Company operates, *provided* that such effects are not borne disproportionately by the Company, (ii) effects resulting from or relating to the announcement or disclosure of the sale of the Securities or other transactions contemplated by this Agreement, or (iii) effects caused by any event, occurrence or condition resulting from or relating to the taking of any action in accordance with this Agreement.

“*Material Contract*” means any contract of the Company that has been filed or was required to have been filed as an exhibit to the SEC Reports pursuant to Item 601(b)(2), Item 601(b)(4) or Item 601(b)(10) of Regulation S-K.

“*Material Permits*” has the meaning set forth in [Section 3.1\(n\)](#).

“*Outside Date*” means the fifth (5th) Business Day following the date of this Agreement.

“*Person*” means an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, sole proprietorship, unincorporated organization, governmental authority or any other form of entity not specifically listed herein.

“*Placement Agent*” means Chardan Capital Markets LLC.

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

“*Press Release*” has the meaning set forth in [Section 4.5](#).

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

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

“*Proposals*” has the meaning set forth in [Section 4.16](#).

“*Purchase Price*” means \$1,000 per Share.

“*Purchaser*” or “*Purchasers*” has the meaning set forth in the Recitals.

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

“*Purchaser Party*” has the meaning set forth in [Section 4.9](#).

“*Registrable Shares*” means all Conversion Shares, without taking into account any limitations upon conversion set forth in the Certificate of Designation; *provided, however*, that a security shall cease to be a Registrable Share upon the earliest to occur of the following: (i) a Resale Registration Statement registering such security under the Securities Act has been declared or becomes effective and such security has been sold or otherwise transferred by the holder thereof pursuant to and in a manner contemplated by such effective Resale Registration Statement, (ii) such security is sold pursuant to Rule 144 under circumstances in which any legend borne by such security relating to restrictions on transferability thereof, under the Securities Act or otherwise, is removed by the Company, (iii) such security is eligible to be sold pursuant to Rule 144 without any limitation under that rule, including as to volume of sales and without the holder complying with any method of sale requirements or notice requirements under Rule 144, or (iv) such security shall cease to be outstanding following its issuance.

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

“*Required Approvals*” has the meaning set forth in [Section 3.1\(e\)](#).

“*Resale Registration Statement*” means a registration statement or registration statements of the Company filed under the Securities Act pursuant to [Section 4.15](#) hereof, and shall include any preliminary prospectus, final prospectus, exhibit or amendment included in or relating to such registration statements.

“*Restriction Termination Date*” has the meaning set forth in [Section 4.15\(b\)](#).

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

“*Sanctioned Country*” means, at any time, a country, region or territory which is itself the subject or target of any Sanctions (at the time of this Agreement, the so-called Donetsk People’s Republic, the so-called Luhansk People’s Republic, the Crimea Region of Ukraine, Cuba, Iran, North Korea and Syria).

“*Sanctioned Person*” means, at any time, (a) any Person listed in any Sanctions-related list of designated Persons, (b) any Person operating, organized or resident in a Sanctioned Country, (c) any Person owned or controlled by any such Person or Persons described in the foregoing clauses (a) or (b), or (d) any Person otherwise the subject or target of any Sanctions.

“*Sanctions*” means all economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by (a) the U.S. government, including those administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State or (b) the United Nations Security Council, the European Union, any European Union member state, His Majesty’s Treasury of the United Kingdom or other relevant sanctions authority.

“*SEC Reports*” has the meaning set forth in [Section 3.1\(h\)](#).

“*SEC Restrictions*” has the meaning set forth in [Section 4.15\(b\)](#).

“*Secretary’s Certificate*” has the meaning set forth in [Section 2.2\(a\)\(ix\)](#).

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

“*Series A-1 Preferred Stock*” has the meaning set forth in the Recitals.

“*Series A-2 Preferred Stock*” has the meaning set forth in the Recitals.

“*Series A-3 Preferred Stock*” has the meaning set forth in the Recitals.

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

“*Short Sales*” include, without limitation, (i) all “short sales” as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, whether or not against the box, and (ii) substantially the same types of sales and other transactions through non-U.S. broker dealers or foreign regulated brokers (but shall not be deemed to include the location and/or reservation of borrowable shares of Common Stock).

“*Special Meeting*” has the meaning set forth in [Section 4.16](#).

“*Staff*” means the staff of the Commission.

“*Stockholder Approval*” has the meaning set forth in [Section 3.1\(e\)](#).

“*Subscription Amount*” means, with respect to each Purchaser, the aggregate amount to be paid for the Shares and the related Warrants purchased hereunder as indicated on such Purchaser’s signature page to this Agreement next to the heading “Aggregate Purchase Price (Subscription Amount)” in United States dollars and in immediately available funds.

“*Subsidiary*” means any subsidiary of the Company as set forth in the SEC Reports, and shall, where applicable, include any subsidiary of the Company formed or acquired after the date hereof.

“*Support Agreement*” means that certain support agreement, dated the date hereof, by and among the Company and each of Christine Hamilton, MBA, Eddie Hamilton, DVM, MAgr, Eddie J. Sullivan, PhD, Samuel J. Reich and Jeffrey G. Spragens, in substantially the form attached hereto as Exhibit J.

“*Tax*” or “*Taxes*” means all federal, state, local, non-U.S. and other taxes, charges, fees, duties, levies, imposts, customs or other assessments, including all net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, profit share, license, lease, service, service use, value added, withholding, payroll, employment, excise, estimated, severance, stamp, occupation, premium, real property, personal property, payroll, escheat, unclaimed property, windfall profits, environmental, capital stock, social security (or similar), unemployment, disability, registration, alternative or add-on minimum, estimated, or other taxes, fees, assessments, customs, duties, levies, imposts or charges of any kind whatsoever, whether disputed or not, together with any interest, penalties, additions to tax, fines or other additional amounts imposed thereon or related thereto.

“*Tax Returns*” means any return, statement, schedule, declaration, claim for refund, report, document or form filed or required to be filed with respect to Taxes, including any amendment, attachment and supplement thereof.

“*Trading Affiliate*” has the meaning set forth in Section 3.2(g).

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

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

“*Tranche A Warrant*” has the meaning set forth in the Recitals.

“*Tranche B Warrant*” has the meaning set forth in the Recitals.

“*Tranche C Warrant*” has the meaning set forth in the Recitals.

“*Transaction Documents*” means this Agreement, the schedules and exhibits attached hereto, the Certificate of Designation, the Tranche A Warrants, the Tranche B Warrants, the Tranche C Warrants, the Irrevocable Transfer Agent Instructions, the Support Agreement and any other documents or agreements explicitly contemplated hereunder.

“*Transfer Agent*” means Continental Stock Transfer & Trust Company, the current transfer agent of the Company, with a mailing address of 1 State St 30th floor, New York, NY 10004, or any successor transfer agent for the Company.

“Warrants” has the meaning set forth in the Recitals.

ARTICLE II.
PURCHASE AND SALE

2.1. Closing.

(a) Amount. Subject to the terms and conditions set forth in this Agreement, at the Closing, the Company shall issue and sell to each Purchaser, and each Purchaser shall, severally and not jointly, purchase from the Company, such number of shares of Series A-1 Preferred Stock equal to the quotient resulting from dividing (i) the Subscription Amount for such Purchaser by (ii) the Purchase Price, rounded down to the nearest whole share of Series A-1 Preferred Stock, which shall be equal to the number of shares of Series A-1 Preferred Stock such Purchaser is purchasing as is set forth on such Purchaser’s signature page to this Agreement next to the heading “Number of Shares to be Acquired.” In addition, at the Closing, the Company shall issue to each Purchaser a Tranche A Warrant, a Tranche B Warrant and a Tranche C Warrant in the amounts set forth on such Purchaser’s signature page to this Agreement.

(b) Closing. The Closing of the purchase and sale of the Shares and Warrants shall take place at the offices of Company Counsel on the Closing Date or at such other locations or remotely by facsimile transmission or other electronic means as the parties may mutually agree.

(c) Form of Payment. Except as may otherwise be agreed to among the Company and one or more of the Purchasers, on the Closing Date, each Purchaser shall wire its Subscription Amount, in United States dollars and in immediately available funds, to an account established by the Company. On the Closing Date, (i) the Company shall irrevocably instruct the Transfer Agent to deliver to each Purchaser book-entry statements, free and clear of all restrictive and other legends (except as expressly provided in Section 4.1(b) hereof), evidencing the number of Shares such Purchaser is purchasing as is set forth on such Purchaser’s signature page to this Agreement next to the heading “Number of Shares to be Acquired,” (ii) the Company shall deliver to each Purchaser one or more Tranche A Warrants, free and clear of all restrictive and other legends (except as expressly provided in Section 4.1(b) hereof), evidencing the number of Tranche A Warrants such Purchaser is purchasing as is set forth on such Purchaser’s signature page to this Agreement next to the heading “Underlying Shares Subject to Tranche A Warrant,” (iii) the Company shall deliver to each Purchaser one or more Tranche B Warrants, free and clear of all restrictive and other legends (except as expressly provided in Section 4.1(b) hereof), evidencing the number of Tranche B Warrants such Purchaser is purchasing as is set forth on such Purchaser’s signature page to this Agreement next to the heading “Underlying Shares Subject to Tranche B Warrant” and (iv) the Company shall deliver to each Purchaser one or more Tranche C Warrants, free and clear of all restrictive and other legends (except as expressly provided in Section 4.1(b) hereof), evidencing the number of Tranche C Warrants such Purchaser is purchasing as is set forth on such Purchaser’s signature page to this Agreement next to the heading “Underlying Shares Subject to Tranche C Warrant”, in each case within two (2) Trading Days of the Closing.

(d) Funding Default.

(i) Each Purchaser hereby acknowledges that failure by a Purchaser to exercise the Tranche A Warrant in full pursuant to the obligation in Section 1(a) of the Tranche A Warrant (a “*Funding Default*”) shall result in the forfeiture of all Warrants held by such Purchaser (such a Purchaser, a “*Defaulting Purchaser*”).

(ii) Notwithstanding anything to the contrary herein, each party agrees that the forfeiture of all Warrants held by a Defaulting Purchaser shall be the sole recourse under this Agreement and the other Transaction Documents for such Defaulting Purchaser's Funding Default.

2.2. Closing Deliveries.

(a) On or prior to the Closing, the Company shall issue, deliver or cause to be delivered to each Purchaser the following (the "Company Deliverables"):

(i) this Agreement, duly executed by the Company;

(ii) facsimile or other electronic copies of one or more book-entry statements from the Transfer Agent, free and clear of all restrictive and other legends (except as provided in Section 4.1(b) hereof), evidencing the Shares subscribed for by such Purchaser hereunder, registered in the name of such Purchaser as set forth on the Book Entry Questionnaire included as Exhibit E-2 hereto;

(iii) facsimile or other electronic copies of one or more Tranche A Warrants, executed by the Company and registered in the name of such Purchaser as set forth on the Book Entry Questionnaire included as Exhibit E-2 hereto, with the original Tranche A Warrants delivered within two (2) Trading Days of the Closing;

(iv) facsimile or other electronic copies of one or more Tranche B Warrants, executed by the Company and registered in the name of such Purchaser as set forth on the Book Entry Questionnaire included as Exhibit E-2 hereto, with the original Tranche B Warrants delivered within two (2) Trading Days of the Closing;

(v) facsimile or other electronic copies of one or more Tranche C Warrants, executed by the Company and registered in the name of such Purchaser as set forth on the Book Entry Questionnaire included as Exhibit E-2 hereto, with the original Tranche C Warrants delivered within two (2) Trading Days of the Closing;

(vi) a legal opinion of Company Counsel, dated as of the Closing Date, executed by such counsel and addressed to the Purchasers and the Placement Agent, in a form reasonably acceptable to such parties;

(vii) the Certificate of Designation shall have been filed with the Secretary of State of Delaware, which Certificate of Designation shall continue to be in full force and effect as of the Closing Date;

(viii) duly executed Irrevocable Transfer Agent Instructions acknowledged in writing by the Transfer Agent instructing the Transfer Agent to deliver, on an expedited basis, the book-entry statements evidencing a number of Shares equal to such Purchaser's Subscription Amount divided by the Purchase Price, registered in the name of such Purchaser;

(ix) a certificate of the Secretary of the Company (the "Secretary's Certificate"), dated as of the Closing Date, (a) certifying the resolutions adopted by the Board of Directors of the Company or a duly authorized committee thereof approving the transactions contemplated by this Agreement and the other Transaction Documents, the filing of the Certificate of Designation and the issuance of the Securities, (b) certifying the current versions of the certificate of incorporation, as amended, the Certificate of Designation and by-laws of the Company and (c) certifying as to the signatures and

authority of persons signing the Transaction Documents and related documents on behalf of the Company, in the form attached hereto as Exhibit G;

(x) the compliance certificate referred to in Section 5.1(i);

(xi) a certificate evidencing the formation and good standing of the Company issued by the Secretary of State (or comparable office) of the State of Delaware, as of a date within three (3) Business Days of the Closing Date;

(xii) a certificate evidencing the Company's qualification as a foreign corporation and good standing issued by the Secretary of State (or comparable office) of each jurisdiction in which the Company is qualified to do business as a foreign corporation, as of a date within three (3) Business Days of the Closing Date;

(xiii) a certified copy of the certificate of incorporation and Certificate of Designation, each as certified by the Secretary of State (or comparable office) of the State of Delaware, as of a date within four (4) Business Days of the Closing Date; and

(xiv) the Support Agreements duly executed by the Company and all parties thereto.

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

(i) this Agreement, duly executed by such Purchaser;

(ii) its Subscription Amount, in United States dollars and in immediately available funds, in the amount set forth as the "Purchase Price" indicated below such Purchaser's name on the applicable signature page hereto under the heading "Aggregate Purchase Price (Subscription Amount)" by wire transfer to the Company;

(iii) a fully completed and duly executed Selling Stockholder Questionnaire in the form attached as Annex A attached hereto; and

(iv) a fully completed and duly executed Accredited Investor Questionnaire, satisfactory to the Company, and Book Entry Questionnaire in the forms attached hereto as Exhibits D-1 and D-2, respectively.

ARTICLE III. REPRESENTATIONS AND WARRANTIES

3.1. Representations and Warranties of the Company. Except as disclosed in the SEC Reports, the Company hereby represents and warrants as of the date hereof and the Closing Date (except for the representations and warranties that speak as of a specific date, which shall be made as of such date), to each of the Purchasers:

(a) Subsidiaries. The Company has no direct or indirect Subsidiaries other than those listed in the SEC Reports. The Company owns, directly or indirectly, all of the capital stock or comparable equity interests of each Subsidiary free and clear of any and all Liens, and all the issued and outstanding shares of capital stock or comparable equity interest 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. The Company and each of its Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization (as applicable), with the requisite corporate power and authority to own or lease and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation or default of any of the provisions of its respective certificate of incorporation, bylaws or other organizational or charter documents. The Company and each of its Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not have or reasonably be expected to result in a Material Adverse Effect, and no Proceeding has been instituted, is pending, or, to the Company's Knowledge, has been threatened in writing in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(c) Authorization; Enforcement; Validity. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by each of the Transaction Documents to which it is a party and otherwise to carry out its obligations hereunder and thereunder. The Company's execution and delivery of each of the Transaction Documents to which it is a party and the consummation by it of the transactions contemplated hereby and thereby (including, but not limited to, the sale and delivery of the Shares and the Warrants and the reservation for issuance and the subsequent issuance of shares of Series A-2 Preferred Stock upon conversion of the Shares, and Preferred Warrant Shares upon exercise of the Warrants, and the Conversion Shares) have been duly authorized by all necessary corporate action on the part of the Company, and no further corporate action is required by the Company, its Board of Directors or its stockholders in connection therewith other than in connection with the Required Approvals. Each of the Transaction Documents to which it is a party has been (or upon delivery will have been) duly executed by the Company and is, or when delivered in accordance with the terms hereof, will constitute the legal, valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except (i) as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation or similar laws relating to, or affecting generally the enforcement of, creditors' rights and remedies or by other equitable principles of general application, (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 the Transaction Documents to which it is a party and the consummation by the Company of the transactions contemplated hereby or thereby (including, without limitation, the issuance of the Shares and Warrants and the reservation for issuance and issuance of shares of Common Stock and Series A-2 Preferred Stock upon conversion of the Shares, and Preferred Warrant Shares upon exercise of the Warrants, and the Conversion Shares) do not and will not (i) conflict with or violate any provisions of the Company's or any Subsidiary's certificate of incorporation, bylaws or otherwise result in a violation of the organizational documents of the Company, (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would result in 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, acceleration or cancellation (with or without notice, lapse of time or both) of, any Material Contract, or (iii) subject to the Required Approvals, 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 and the rules and regulations, assuming the correctness of the representations and warranties made by the Purchasers herein, of any self-regulatory organization to which the Company or its securities are subject, including all applicable Trading Markets), or by which any property or asset of the Company or a Subsidiary is bound

or affected, except in the case of clauses (ii) and (iii) such as would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect.

(e) Filings, Consents and Approvals. Neither the Company nor any of its Subsidiaries is 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 (including the issuance of the Securities), other than (i) the filing with the Commission of one or more Resale Registration Statements in accordance with the requirements hereof, (ii) filings required by applicable state securities laws, (iii) the filing of a Notice of Sale of Securities on Form D with the Commission under Regulation D of the Securities Act, (iv) the filing of any requisite notices and/or application(s) to the Principal Trading Market for the issuance and sale of the Securities and the listing of the Conversion Shares for trading or quotation, as the case may be, thereon in the time and manner required thereby, (v) the filings required in accordance with Section 4.5 of this Agreement, (vi) approval of the Proposals by the stockholders of the Company (the “*Stockholder Approval*”) and (vii) those that have been made or obtained prior to the date of this Agreement (collectively, the “*Required Approvals*”).

(f) Issuance of the Securities. The Shares have been duly authorized and, when issued and paid for in accordance with the terms of the Transaction Documents, will be duly and validly issued, fully paid and nonassessable and free and clear of all Liens, other than restrictions on transfer provided for in the Transaction Documents or imposed by applicable securities laws, and shall not be subject to preemptive or similar rights. The Warrants have been duly authorized and, when issued and paid for in accordance with the terms of the Transaction Documents, will be duly and validly issued, free and clear of all Liens, other than restrictions on transfer provided for in the Transaction Documents or imposed by applicable securities laws, and shall not be subject to preemptive or similar rights of stockholders. The shares of Common Stock and Series A-2 Preferred Stock issuable upon conversion of the Shares have been duly authorized and, when issued in accordance with the terms of the Transaction Documents and the Certificate of Designation will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens, other than restrictions on transfer provided for in the Transaction Documents or imposed by applicable securities laws, and shall not be subject to preemptive or similar rights of stockholders. The Preferred Warrant Shares issuable upon exercise of the Warrants have been duly authorized and, when issued in accordance with the terms of the Warrants, Transaction Documents and the Certificate of Designation will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens, other than restrictions on transfer provided for in the Transaction Documents or imposed by applicable securities laws, and shall not be subject to preemptive or similar rights of stockholders. The Conversion Shares issuable upon conversion of the Shares, the Series A-2 Preferred Stock and the Preferred Warrant Shares have been duly authorized and, when issued in accordance with the terms of the Transaction Documents, will be duly and validly issued, fully paid and nonassessable and free and clear of all Liens, other than restrictions on transfer provided for in the Transaction Documents or imposed by applicable securities laws, and shall not be subject to preemptive or similar rights. Assuming the accuracy of the representations and warranties of the Purchasers in this Agreement, the Securities will be issued in compliance with all applicable federal and state securities laws. As of the Closing Date, the Company shall have reserved from its duly authorized capital stock (i) the maximum number of shares of Series A-2 Preferred Stock issuable upon conversion of the Shares, (ii) the maximum number of Conversion Shares issuable upon conversion of the Shares, (iii) the maximum number of shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock issuable upon exercise of the Tranche A Warrants, (iv) the maximum number of shares of Series A-3 Preferred Stock issuable upon exercise of the Tranche B Warrants, (v) the maximum number of shares of Series A-3 Preferred Stock issuable upon exercise of the Tranche C Warrants and (vi) the maximum number of Conversion Shares issuable upon conversion of the shares of Series A-2 Preferred Stock and the Preferred Warrant Shares (without taking into account any limitations set forth in the Certificate of Designation). The Company shall, so long as any of the Shares, the Warrants, the Series A-2 Preferred Stock and the Preferred

Warrant Shares are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued capital stock, solely for the purpose of effecting the conversion of the Shares, the exercise of the Warrants and the conversion of the Series A-2 Preferred Stock and the Preferred Warrant Shares, the maximum number of shares of Common Stock issuable upon the exercise or conversion thereof (without taking into account any limitations set forth in the Certificate of Designation).

(g) Capitalization. The Company is authorized under the Certificate of Incorporation to issue 490,000,000 shares of Common Stock and 10,000,000 shares of preferred stock. The Company's disclosure of its issued and outstanding capital stock in its most recent SEC Reports containing such disclosure was accurate in all material respects as of the date indicated in such SEC Reports. The Company has not issued any capital stock since the date of its most recently filed SEC Report other than to reflect stock option and warrant exercises that do not, individually or in the aggregate, have a material effect on the issued and outstanding capital stock, options and other securities. 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 that have not been effectively waived as of the Closing Date. Except as described in the SEC Reports or a result of the purchase and sale of the Shares and Warrants, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents. The issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Purchasers) 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. All of the outstanding shares of capital stock of the Company are validly issued, fully paid and nonassessable, have been issued in compliance with all applicable federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. No further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Securities. There are no stockholders 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.

(h) SEC Reports. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by it under the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the "*SEC 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 any such extension, except where the failure to file on a timely basis would not have or reasonably be expected to result in a Material Adverse Effect (including, for this purpose only, any failure to qualify to register the Conversion Shares for resale on Form S-3 or which would prevent any Purchaser from using Rule 144 to resell any Securities). As of their respective filing dates, or to the extent corrected by a subsequent restatement, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act and the rules and regulations of the Commission promulgated thereunder, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The Company has never been an issuer subject to Rule 144(i) under the Securities Act. Each of the Material Contracts to which the Company or any Subsidiary is a party or to which the property or assets of the Company or any of its Subsidiaries are subject has been filed as an exhibit to the SEC Reports.

(i) Financial Statements. The financial statements of the Company included in the SEC Reports comply 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 (or to the extent corrected by a subsequent restatement). Such financial statements have been prepared in accordance with GAAP applied on a consistent basis during the periods involved, 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 taken as a whole 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.

(j) Material Changes. Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date hereof, (i) there have been no events, occurrences or developments that have had or would reasonably be expected to have, either individually or in the aggregate, 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 materially its method of accounting or the manner in which it keeps its accounting books and records, (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 (other than in connection with repurchases of unvested stock issued to employees of the Company), and (v) the Company has not issued any equity securities to any officer, director or Affiliate, except Common Stock issued in the ordinary course as dividends on outstanding preferred stock or issued pursuant to existing Company stock option or stock purchase plans or executive and director compensation arrangements disclosed in the SEC Reports. Except for the issuance of the Shares and Warrants and the transactions contemplated by the Transaction Documents, no event, liability or development has occurred or exists with respect to the Company or its Subsidiaries or their respective business, properties, operations or financial condition, that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made that has not been publicly disclosed at least one (1) Trading Day prior to the date that this representation is made.

(k) Litigation. There is no Action which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) except as specifically disclosed in the SEC Reports, would, if there were an unfavorable decision, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor to the Company's Knowledge 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 Company's Knowledge 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 of its Subsidiaries under the Exchange Act or the Securities Act.

(l) Employment Matters. No material labor dispute exists or, to the Company's Knowledge, is imminent with respect to any of the employees of the Company which would have or reasonably be expected to result in a Material Adverse Effect. None of the Company's or any Subsidiary's employees is a member of a union that relates to such employee's relationship with the Company, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, and the Company and each Subsidiary believes that its relationship with its employees is good. No executive officer

of the Company (as defined in Rule 501(f) of the Securities Act) has notified the Company or any such Subsidiary that such officer intends to leave the Company or any such Subsidiary or otherwise terminate such officer's employment with the Company or any such Subsidiary. To the Company's Knowledge, no executive officer, to the Company's Knowledge, is, or is now expected to be, in violation of any term 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 a third party, and to the Company's Knowledge, the continued employment of each such executive officer does not subject the Company or any Subsidiary to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all 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, have or reasonably be expected to result in a Material Adverse Effect.

(m) Compliance. Neither the Company nor any of its Subsidiaries (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 of its Subsidiaries under), nor has the Company or any of its Subsidiaries received written notice of a claim that it is in default under or that it is in violation of, any Material Contract (whether or not such default or violation has been waived), (ii) is in violation of any order of any court, arbitrator or governmental body having jurisdiction over the Company or its properties or assets, or (iii) is in violation of, or in receipt of written notice that it is in violation of, any statute, rule or regulation of any governmental authority applicable to the Company, except in each case as would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect.

(n) Regulatory Permits. The Company and each of its Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct its respective business as currently conducted and as described in the SEC Reports, except where the failure to possess such permits, individually or in the aggregate, has not and would not have or reasonably be expected to result in a Material Adverse Effect ("*Material Permits*"), and neither the Company nor any of its Subsidiaries has received any notice of Proceedings relating to the revocation or modification of any such Material Permits.

(o) Title to Assets. The Company and its Subsidiaries have good and marketable title in fee simple to all real property owned by them. Other than as disclosed in the SEC Reports, the Company and its Subsidiaries have good and marketable title to all tangible personal property owned by them that is material to the business of the Company and its Subsidiaries, taken as whole, in each case free and clear of all Liens except such as do not materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company and any of its Subsidiaries. Any real property and facilities held under lease by the Company and any of its Subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company and its Subsidiaries.

(p) Intellectual Property.

(i) Except as disclosed in the SEC Reports, and as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, the Company or one of its Subsidiaries owns, possesses, licenses or has other rights to use, the Intellectual Property Rights necessary or material for use in connection with their businesses as described in the SEC Reports (the "*Company Intellectual Property Rights*"), each, free and clear of all Liens, other than as disclosed in the SEC Reports. No loss or expiration of any Company Intellectual Property Right is threatened, pending or, to the Company's knowledge, reasonably foreseeable, except for patents expiring at the end of their statutory

term. The Company and each of its Subsidiaries have taken all actions reasonable under the circumstances to maintain and protect the Company Intellectual Property Rights. Each of the patented or registered Company Intellectual Property Rights (or applications therefor) is subsisting, in full force and effect, and valid and enforceable. All renewal and maintenance fees in respect of each item of patented or registered Company Intellectual Property Rights (or applications therefor) have been duly paid and none of the registrations or applications are subject to any challenge, opposition, nullity proceeding or interference or, to the Company's knowledge, threats to commence the same.

(ii) There have been no claims made or, to the Company's knowledge, threatened against the Company or any of its Subsidiaries with respect to the validity, infringement, use, ownership or enforceability of any of the Company Intellectual Property Rights and, to the Company's knowledge, there is no basis for any such claim. Neither the Company or any of its Subsidiaries has received any notices of, and has no knowledge of any facts that indicate a likelihood of, the Company or any of its Subsidiaries infringing, misappropriating, or conflicting with any Intellectual Property Rights of any other Person (including any demand or request that the Company or any of its Subsidiaries license any rights from a third party or any unsolicited offer to license a patent). The conduct of the Company's and its Subsidiaries' businesses has not infringed, misappropriated, violated or conflicted with, and the continued conduct of the Company's and its Subsidiaries' businesses as presently conducted and as presently proposed to be conducted will not infringe, misappropriate, violate or conflict with, any Intellectual Property Rights of any other Persons. To the Company's knowledge, the Company Intellectual Property Rights have not been infringed, misappropriated, violated or conflicted by other Persons.

(iii) The Company and each of its Subsidiaries have taken steps reasonable under the circumstances to maintain and protect the confidentiality of their trade secrets and material confidential information. Each employee, officer, consultant, or outside contractor that has had access to the confidential or proprietary information of the Company or any of its Subsidiaries has executed a confidentiality or similar agreement for the protection, confidentiality and non-disclosure of such confidential and proprietary information, and neither the Company nor any of its Subsidiaries has received notice that, nor is aware of any facts that, indicate a likelihood that, any Person is in violation or breach of any such agreements.

(q) Insurance. The Company and each of the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as the Company believes to be prudent and customary in the businesses and locations in which the Company and the Subsidiaries are engaged, including, but not limited to, directors and officers insurance coverage and clinical trial liability coverage. Neither the Company nor any of its Subsidiaries has received any notice of cancellation of any such insurance, nor, to the Company's Knowledge, will it or any Subsidiary be unable to renew their respective existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

(r) Transactions With Affiliates and Employees. Except as set forth in the SEC Reports, none of the officers or directors of the Company and, to the Company's Knowledge, none of the employees of the Company is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), that would be required to be disclosed pursuant to Item 404 of Regulation S-K promulgated under the Securities Act that has not otherwise been appropriately disclosed in accordance with the Exchange Act.

(s) Internal Accounting Controls. The Company maintains a system of internal accounting controls designed 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 and

liability accountability, (iii) access to assets or incurrence of liabilities is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets and liabilities is compared with the existing assets and liabilities at reasonable intervals and appropriate action is taken with respect to any differences.

(t) Sarbanes-Oxley; Disclosure Controls. The Company is in compliance in all material respects with all of the provisions of the Sarbanes-Oxley Act of 2002 which are applicable to it as of the Closing Date. The Company has established disclosure controls and procedures (as such term is defined in Rule 13a-15(e) and 15d-15(e) under the Exchange Act) for the Company 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 Company's disclosure controls and procedures as of the end of the period covered by the Company's 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 Company's internal control over financial reporting (as such term is defined in the Exchange Act) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(u) Certain Fees. Except for the Placement Agent, no person or entity will have, as a result of the transactions contemplated by this Agreement, any valid right, interest or claim against or upon the Company or a Purchaser for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of the Company with respect to the offer and sale of the Shares and Warrants. The Purchasers 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 3.1(u) that may be due in connection with the transactions contemplated by the Transaction Documents. The Company shall indemnify, pay, and hold each Purchaser harmless against, any liability, loss or expense (including, without limitation, attorneys' fees and out-of-pocket expenses) arising in connection with any such right, interest or claim.

(v) Private Placement. Assuming the accuracy of the Purchasers' representations and warranties set forth in Section 3.2 of this Agreement and the accuracy of the information disclosed in the Accredited Investor Questionnaires provided by the Purchasers, no registration under the Securities Act is required for the offer and sale of the Securities by the Company to the Purchasers under the Transaction Documents. The issuance and sale of the Securities hereunder does not contravene the rules and regulations of the Trading Market.

(w) Investment Company. The Company is not, and immediately after receipt of payment for the Shares and Warrants, will not be or be an "investment company" within the meaning of the Investment Company Act of 1940, as amended. The Company shall conduct its business in a manner so that it will not become subject to the Investment Company Act of 1940, as amended.

(x) Registration Rights. Other than each of the Purchasers pursuant to Section 4.15 hereof, or as set forth in the SEC Reports, no Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company other than those securities which are currently registered on an effective registration statement on file with the Commission.

(y) Listing and Maintenance Requirements. The Company's 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 terminate 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. Except as set forth in the SEC Reports, the Company has not, in the twelve (12) months preceding the date hereof, received written notice from any Trading Market on which the Common Stock is 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 in compliance with all listing and maintenance requirements of the Principal Trading Market on the date hereof.

(z) Application of Takeover Protections; Rights Agreements. The Company and the 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 charter documents or the laws of its state of incorporation that is or could reasonably be expected to become applicable to any of the Purchasers as a result of the Purchasers and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including, without limitation, the Company's issuance of the Securities and the Purchasers' ownership of the Securities.

(aa) Disclosure. The Company confirms that it has not provided, and to the Company's Knowledge, none of its officers or directors nor any other Person acting on its or their behalf has provided, any Purchaser or its respective agents or counsel with any information that it believes constitutes material, non-public information except insofar as the existence, provisions and terms of the Transaction Documents and the proposed transactions hereunder may constitute such information, all of which will be disclosed by the Company in the Press Release as contemplated by Section 4.5 hereof. The Company understands and confirms that the Purchasers will rely on the foregoing representations in effecting transactions in securities of the Company.

(bb) No Integrated Offering. Assuming the accuracy of the Purchasers' representations and warranties set forth in Section 3.2, none of the Company, its Subsidiaries nor, to the Company's Knowledge, any of its Affiliates or any Person acting on its behalf has, directly or indirectly, at any time within the past six (6) months, made any offers or sales of any Company security or solicited any offers to buy any security under circumstances that would (i) eliminate the availability of the exemption from registration under Regulation D under the Securities Act in connection with the offer and sale by the Company of the Securities as contemplated hereby or (ii) cause the offering of the Securities pursuant to the Transaction Documents to be integrated with prior offerings by the Company for purposes of any applicable law, regulation or stockholder approval provisions, including, without limitation, under the rules and regulations of any Trading Market on which any of the securities of the Company are listed or designated.

(cc) Tax Matters. The Company and each of its Subsidiaries (i) has accurately and timely prepared and filed all foreign, federal, state, county, and local income and all other material Tax Returns required by any jurisdiction to which it is subject, (ii) has paid all material Taxes due and owing whether or not shown on such Tax Returns and (iii) has set aside on its books provisions reasonably adequate for the payment of all Taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid Taxes claimed to be due by the Company or any of its Subsidiaries by the Taxing authority of any jurisdiction. There have been no examinations or audits of any Tax Returns or reports by any applicable federal, state, local or foreign governmental agency. There is no proposed deficiency, audit, action, suit or other proceeding with respect to Taxes pending or threatened. There is no Tax lien, whether imposed by any governmental authority, outstanding against the assets, properties or business of the Company or any of its Subsidiaries, except for liens for Taxes not yet due and payable as may accrue in the ordinary course of business. The Company and each of its Subsidiaries has withheld or collected from each payment to each of its employees, contractors or any other third party or Person the amount of all material

Taxes required to be withheld or collected therefore and has paid the same to the proper governmental authority.

(dd) Environmental Matters. To the Company's Knowledge, neither the Company nor any of its Subsidiaries (i) is in violation of any statute, rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, "*Environmental Laws*"), (ii) owns or operates any real property contaminated with any substance that is in violation of any Environmental Laws, (iii) is liable for any off-site disposal or contamination pursuant to any Environmental Laws, or (iv) is subject to any claim relating to any Environmental Laws; which violation, contamination, liability or claim has had or would have, individually or in the aggregate, a Material Adverse Effect; and there is no pending investigation or, to the Company's Knowledge, investigation threatened in writing that might lead to such a claim.

(ee) No General Solicitation. Neither the Company nor, to the Company's Knowledge, any person acting on behalf of the Company has offered or sold any of the Securities by any form of general solicitation or general advertising.

(ff) Foreign Corrupt Practices. Neither the Company, nor to the Company's Knowledge, any agent or other person acting on behalf of the Company, has: (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company (or made by any person acting on its behalf of which the Company is aware) which is in violation of law or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

(gg) Off Balance Sheet Arrangements. There is no transaction, arrangement, or other relationship between the Company (or any Subsidiary) and an unconsolidated or other off balance sheet entity that is required to be disclosed by the Company in SEC Reports and is not so disclosed and would have or reasonably be expected to result in a Material Adverse Effect.

(hh) Acknowledgment Regarding Purchasers' Purchase of Securities. The Company acknowledges and agrees that each of the Purchasers is acting solely in the capacity of an arm's length purchaser with respect to the Transaction Documents and the transactions contemplated hereby and thereby. 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 thereby and any advice given by any Purchaser or any of their respective representatives or agents in connection with the Transaction Documents and the transactions contemplated thereby is merely incidental to the Purchasers' purchase of the Securities. The Company further represents to each 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.

(ii) 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 Securities, (ii) sold, bid for, purchased, or paid any compensation for soliciting purchases of, any of the securities of the Company or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company.

(jj) PFIC. No Subsidiary of the Company is or intends to become a “passive foreign investment company” within the meaning of Section 1297 of the U.S. Internal Revenue Code of 1986, as amended (the “Code”) or a “controlled foreign corporation” within the meaning of Section 957 of the Code.

(kk) Real Property Holding Corporation. The Company is not now and has never been a “United States real property holding corporation” as defined in the Code and any applicable regulations promulgated thereunder.

(ll) Sanctions. Neither the Company nor any Subsidiary nor, to the Company’s Knowledge, any director, officer, agent, employee, Affiliate or Person acting on behalf 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; and the Company will not directly or indirectly use the proceeds of the sale of the Securities, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other Person or entity, for the purpose of financing or facilitating any activities, business or transaction with any Sanctioned Person or in any Sanctioned Country or in any manner that would result in the violation of any Sanctions applicable to any party hereto.

(mm) No Bad Actors. No “bad actor” disqualifying event described in Rule 506(d)(1)(i)-(viii) of the Securities Act (a “Disqualification Event”) is applicable to the Company or, to the Company’s Knowledge, any Company Covered Person, except for a Disqualification Event as to which Rule 506(d)(2)(ii-iv) or (d)(3) is applicable.

(nn) FDA. As to each product subject to the jurisdiction of the FDA under the Federal Food, Drug and Cosmetic Act, as amended, and the regulations thereunder (“FDCA”) that is manufactured, packaged, labeled, tested, distributed, sold, and/or marketed by the Company or any of its Subsidiaries (each such product, a “Pharmaceutical Product”), such Pharmaceutical Product is being manufactured, packaged, labeled, tested, distributed, sold and/or marketed by the Company in compliance with all applicable requirements under FDCA and similar laws, rules and regulations relating to registration, investigational use, premarket clearance, 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 or reasonably be expected to result in a Material Adverse Effect. There is no pending, completed or, to the Company’s Knowledge, threatened, action (including any lawsuit, 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 premarket clearance, 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 or reasonably be expected to result in 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.

(oo) Healthcare Laws. The Company and its Subsidiaries are, and during the last three (3) years, has been, in compliance with all Healthcare Laws, except where failure to comply would not be expected, individually or in the aggregate, to result in a Material Adverse Effect. For purposes of this Agreement, “*Healthcare Laws*” means: (i) the FDCA and the Public Health Service Act (42 U.S.C. Section 201 et seq.); (ii) all applicable federal, state, local and foreign health care fraud and abuse laws, including, without limitation, the Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the Civil False Claims Act (31 U.S.C. Section 3729 et seq.), the criminal false statements law (42 U.S.C. Section 1320a-7b(a)), 18 U.S.C. Sections 286, 287, 1347 and 1349, the civil monetary penalties law (42 U.S.C. Section 1320a-7a), the exclusion law (42 U.S.C. Section 1320a-7), the Physician Payments Sunshine Act (42 U.S.C. Section 1320-7h), and applicable laws governing government funded or sponsored healthcare programs; (iii) the Health Insurance Portability and Accountability Act, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.); (iv) all other similar local, state, federal, national, supranational and foreign laws; and (v) the regulations promulgated pursuant to such laws set forth in subparts (i) through (iv). Except as would not be expected, individually or in the aggregate, to result in a Material Adverse Effect. During the last three (3) years, the Company has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any court or arbitrator or governmental authority alleging that any product, operation, or activity is in violation of any Healthcare Laws nor, to the Company’s Knowledge, is any such written claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action threatened. Except as would not be expected, individually or in the aggregate, to result in a Material Adverse Effect, during the last three (3) years, the Company has filed, maintained or submitted all written reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments (“*Submissions*”) as required by any Healthcare Laws, and all such Submissions were accurate on the date filed (or were corrected or supplemented by a subsequent submission). The Company is not a party to any corporate integrity agreements, deferred or non-prosecution agreements, monitoring agreements, consent decrees, settlement orders, or similar written agreements with or imposed by any governmental authority. During the last three (3) years, neither the Company nor any of its respective employees, officers, directors, or, to the Company’s Knowledge, agents has been excluded, suspended or debarred from participation in any U.S. federal health care program or human clinical research.

(pp) Preclinical Data, Clinical Trials and Regulatory Compliance. The preclinical tests and clinical trials, and other studies (collectively, “*studies*”) that are described in, or the results of which are referred to in, the SEC Reports were and, if still pending, are being conducted in all material respects in accordance with the protocols, procedures and controls designed and approved for such studies and with standard medical and scientific research procedures; each description of the results of such studies is accurate and complete in all material respects and fairly presents the data derived from such studies, and to the Company’s Knowledge no other studies the results of which are inconsistent with, or otherwise call into question, the results described or referred to in the SEC Reports; the Company and its Subsidiaries have made all such filings and obtained all such approvals as may be required by the FDA or the U.S. Department of Health and Human Services or any committee thereof or from any other United States or foreign government or drug or medical device regulatory agency, or health care facility Institutional Review Board (collectively, the “*Regulatory Agencies*”); neither the Company nor any of its Subsidiaries has received any notice of, or correspondence from, any Regulatory Agency requiring the termination, suspension or modification of any clinical trials or preclinical tests that are described or referred to in the SEC Reports; and the Company and its Subsidiaries have each operated and currently are in compliance in all material respects with all applicable rules, regulations and policies of the Regulatory Agencies.

(qq) No Additional Agreements. The Company does not have any agreement or understanding with any Purchaser with respect to the transactions contemplated by the Transaction Documents other than as specified in the Transaction Documents.

(rr) Use of Form S-3. The Company meets the registration and transaction requirements for use of Form S-3 for the registration of the Registrable Shares for resale by the Purchasers.

(ss) Substantially Identical Agreements. The Company is not entering into any Agreements with one Purchaser that has materially more favorable terms than the Agreement signed with any other Purchaser, except with respect to the designation of a seat on the Company's Board of Directors.

3.2. Representations and Warranties of the Purchasers. Each Purchaser hereby, for itself and for no other Purchaser, represents and warrants as of the date hereof and as of the Closing Date to the Company as follows:

(a) Organization; Authority. Such Purchaser is an entity validly existing and in good standing under the laws of the jurisdiction of its organization with the requisite corporate or partnership power and authority to enter into and to consummate the transactions contemplated by the applicable Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement by such Purchaser and performance by such Purchaser of the transactions contemplated by this Agreement have been duly authorized by all necessary corporate or, if such Purchaser is not a corporation, such partnership, limited liability company or other applicable like action, on the part of such Purchaser. Each Transaction document to which it is a party has been duly executed by such Purchaser, and when delivered by such Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation or similar laws relating to, or affecting generally the enforcement of, creditors' rights and remedies or by other equitable principles of general application.

(b) No Conflicts. The execution, delivery and performance by such Purchaser of this Agreement and the consummation by such Purchaser of the transactions contemplated hereby and thereby will not (i) result in a violation of the organizational documents of such Purchaser, (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture or instrument to which such Purchaser is a party, or (iii) result in a violation of any law, rule, regulation, order, judgment or decree (including federal and state securities laws) applicable to such Purchaser, except in the case of clauses (ii) and (iii) above, for such conflicts, defaults, rights or violations which would not, individually or in the aggregate, reasonably be expected to have a material adverse effect on the ability of such Purchaser to perform its obligations hereunder.

(c) Investment Intent. Such Purchaser understands that the Securities are "restricted securities" and have not been registered under the Securities Act or any applicable state securities law and is acquiring the Shares and Warrants, and will acquire the shares of Series A-2 Preferred Stock (upon conversion of the Shares), the Preferred Warrant Shares (upon exercise of the Warrants) and the Conversion Shares (upon conversion of the Shares, the Series A-2 Preferred Stock and the Preferred Warrant Shares) as principal for its own account and not with a view to, or for distributing or reselling such Securities or any part thereof in violation of the Securities Act or any applicable state securities laws, *provided, however*, that by making the representations herein, such Purchaser does not agree to hold any of the Securities for any minimum period of time and reserves the right, subject to the provisions of this Agreement, at all times to sell or otherwise dispose of all or any part of such Securities pursuant to an effective registration statement under the Securities Act or under an exemption from such registration and in compliance with applicable federal and state securities laws. Such Purchaser does not presently have any agreement, plan or understanding, directly or indirectly, with any Person to distribute or effect any distribution of any of the Securities (or any securities which are derivatives thereof) to or through any person or entity; such Purchaser

is not a registered broker-dealer under Section 15 of the Exchange Act or an entity engaged in a business that would require it to be so registered as a broker-dealer.

(d) Purchaser Status. At the time such Purchaser was offered the Shares and Warrants, it was, and at the date hereof it is, an “accredited investor” as defined in Rule 501(a) under the Securities Act.

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

(f) Access to Information. Such Purchaser acknowledges that it 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 Securities and the merits and risks of investing in the Securities; (ii) access to information about the Company and the Subsidiaries and their respective 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. Neither such inquiries nor any other investigation conducted by or on behalf of such Purchaser or its representatives or counsel shall modify, amend or affect such Purchaser’s right to rely on the truth, accuracy and completeness of the SEC Reports and the Company’s representations and warranties contained in the Transaction Documents. Such Purchaser has sought such accounting, legal and tax advice as it has considered necessary to make an informed decision with respect to its acquisition of the Securities.

(g) Certain Trading Activities. Other than with respect to the transactions contemplated herein, since the time that such Purchaser was first contacted by the Company or any other Person regarding the transactions contemplated hereby and until the date hereof, neither the Purchaser nor any Affiliate of such Purchaser which (x) had knowledge of the transactions contemplated hereby, (y) has or shares discretion relating to such Purchaser’s investments or trading or information concerning such Purchaser’s investments, including in respect of the Securities, and (z) is subject to such Purchaser’s review or input concerning such Affiliate’s investments or trading (collectively, “*Trading Affiliates*”) has directly or indirectly, nor has any Person acting on behalf of or pursuant to any understanding with such Purchaser or Trading Affiliate, effected or agreed to effect any purchases or sales of the securities of the Company (including, without limitation, any Short Sales involving the Company’s securities). Notwithstanding the foregoing, in the case of a Purchaser and/or Trading Affiliate that is, individually or collectively, a multi-managed investment bank or vehicle whereby separate portfolio managers manage separate portions of such Purchaser’s or Trading Affiliate’s assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser’s or Trading Affiliate’s assets, the representation set forth above shall apply only with respect to the portion of assets managed by the portfolio manager that have knowledge about the financing transaction contemplated by this Agreement. Other than to other Persons party to this Agreement, such 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 avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to the identification of the availability of, or securing of, available shares to borrow in order to effect short sales or similar transactions in the future.

(h) Brokers and Finders. No Person will have, as a result of the transactions contemplated by this Agreement, any valid right, interest or claim against or upon the Company or any

Purchaser for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of the Purchaser.

(i) Independent Investment Decision. Such Purchaser has independently evaluated the merits of its decision to purchase Securities pursuant to the Transaction Documents, and such Purchaser confirms that it has not relied on the advice of any other Purchaser's business and/or legal counsel or of the Placement Agent in making such decision. Such Purchaser understands that nothing in this Agreement or any other materials presented by or on behalf of the Company, including without limitation by the Placement Agent, to the Purchaser in connection with the purchase of the Securities constitutes legal, tax or investment advice. Such Purchaser has consulted such legal, tax and investment advisors as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of the Securities. Such Purchaser confirms that none of such Persons has made any representations or warranties to such Purchaser in connection with the transactions contemplated by the Transaction Documents.

(j) Reliance on Exemptions. Such Purchaser understands that the Securities being offered and sold to it in reliance on specific exemptions from the registration requirements of United States federal and state securities laws and that the Company is relying in part upon the truth and accuracy of, and such Purchaser's compliance with, the representations, warranties, agreements, acknowledgements and understandings of such Purchaser set forth herein in order to determine the availability of such exemptions and the eligibility of such Purchaser to acquire the Securities.

(k) Beneficial Ownership. The purchase by such Purchaser of the Shares and Warrants issuable to it at the Closing will not result in such Purchaser (individually or together with any other Person with whom such Purchaser has identified, or will have identified, itself as part of a "group" in a public filing made with the Commission involving the Company's securities) acquiring, or obtaining the right to acquire, in excess of 19.99% of the outstanding shares of Common Stock or the voting power of the Company on a post transaction basis that assumes that such Closing shall have occurred.

(l) Residency. Such Purchaser's residence (if an individual) or offices in which its investment decision with respect to the Securities was made (if an entity) are located at the address immediately below such Purchaser's name on its signature page hereto.

(m) Acknowledgements Regarding Placement Agent by each Purchaser. Such Purchaser acknowledges and agrees that (a) the Placement Agent is acting solely as the Company's placement agent in connection with the transactions contemplated by this Agreement and is not acting as an underwriter or in any other capacity and is not and will not be construed as a fiduciary for such Purchaser, the Company or any other person or entity in connection with the transactions contemplated by this Agreement, (b) the Placement Agent has not made and will not make any representation or warranty, whether express or implied, of any kind or character and has not provided any advice or recommendation in connection with the transactions contemplated by this Agreement, (c) the Placement Agent will have no responsibility with respect to (i) any representations, warranties or agreements made by any person or entity under or in connection with the transactions contemplated by this Agreement or any of the documents furnished pursuant thereto or in connection therewith, or the execution, legality, validity or enforceability (with respect to any person) or any thereof, or (ii) the business, affairs, financial condition, operations, properties or prospects of, or any other matter concerning the Company or the transactions contemplated by this Agreement, and (d) the Placement Agent shall have no liability or obligation (including without limitation, for or with respect to any losses, claims, damages, obligations, penalties, judgments, awards, liabilities, costs, expenses or disbursements incurred by you, the Company or any other person or entity), whether in contract, tort or otherwise, to such Purchaser, or to any person claiming through such Purchaser, in respect of the transactions contemplated by this Agreement.

(n) Sufficient Funds. Such Purchaser will have sufficient funds to pay the Aggregate Exercise Price (as defined in the Tranche A Warrant) following the Mandatory Exercise Trigger (as defined in the Tranche A Warrant), pursuant to the terms of the Tranche A Warrant.

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

ARTICLE IV.
OTHER AGREEMENTS OF THE PARTIES

4.1. Transfer Restrictions.

(a) Compliance with Laws. Notwithstanding any other provision of this ARTICLE IV, each Purchaser covenants that the Securities may be disposed of only pursuant to an effective registration statement under, and in compliance with the requirements of, the Securities Act, or pursuant to an available exemption from, or in a transaction not subject to, the registration requirements of the Securities Act, and in compliance with any applicable state and federal securities laws. In connection with any transfer of the Securities other than (i) pursuant to an effective registration statement, (ii) to the Company, (iii) pursuant to Rule 144 (*provided* that the Purchaser provides the Company with reasonable assurances (in the form of seller and, if applicable, broker representation letters) that the securities may be sold pursuant to such rule) or (iv) in connection with a bona fide pledge as contemplated in Section 4.1(b), the Company may require the transferor thereof to provide to the Company an opinion of counsel selected by the transferor and reasonably acceptable to the Company, the form and substance of which opinion shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration of such transferred Securities under the Securities Act. As a condition of a transfer other than pursuant to (i) through (iv) above, any such transferee shall agree in writing to be bound by the terms of this Agreement and shall have the rights of a Purchaser under this Agreement with respect to such transferred Securities.

(b) Legends. Certificates, including, if applicable, book entry statements with the Transfer Agent, evidencing the Securities shall bear any legend as required by the “blue sky” laws of any state and a restrictive legend in substantially the following form, until such time as they are not required under Section 4.1(c):

NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON CONVERSION OR EXERCISE OF THESE SECURITIES HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES AND THE SECURITIES ISSUABLE UPON CONVERSION OR EXERCISE OF THESE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OR (B) AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY AND ITS TRANSFER AGENT OR (II) UNLESS SOLD PURSUANT TO RULE 144 UNDER THE SECURITIES ACT. 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.

The Company acknowledges and agrees that a Purchaser may from time to time pledge, and/or grant a security interest in, some or all of the legended Securities in connection with applicable securities laws, pursuant to a bona fide margin agreement in compliance with a bona fide margin loan. Such a pledge would not be subject to approval or consent of the Company and no legal opinion of legal counsel to the pledgee, secured party or pledgor shall be required in connection with the pledge, but such legal opinion shall be required in connection with a subsequent transfer or foreclosure following default by the Purchaser transferee of the pledge. No notice shall be required of such pledge, but Purchaser's transferee shall promptly notify the Company of any such subsequent transfer or foreclosure. Each Purchaser acknowledges that the Company shall not be responsible for any pledges relating to, or the grant of any security interest in, any of the Securities or for any agreement, understanding or arrangement between any Purchaser and its pledgee or secured party. At the appropriate Purchaser's expense, the Company will execute and deliver such reasonable documentation as a pledgee or secured party of Securities may reasonably request in connection with a pledge or transfer of the Securities, including the preparation and filing of any required prospectus supplement under Rule 424(b)(3) of the Securities Act or other applicable provision of the Securities Act to appropriately amend the list of Selling Stockholders thereunder. Each Purchaser acknowledges and agrees that, except as otherwise provided in Section 4.1(c), any Securities subject to a pledge or security interest as contemplated by this Section 4.1(b) shall continue to bear the legend set forth in this Section 4.1(b) and be subject to the restrictions on transfer set forth in Section 4.1(a).

(c) Removal of Legends. The legend set forth in Section 4.1(b) above shall be removed and the Company shall cause its Transfer Agent to issue book entry statements without such legend or any other legend to the holder of the applicable Securities upon which it is stamped or issue to such holder by electronic delivery at the applicable balance account at the Depository Trust Company ("DTC"), if (i) such Securities are sold or transferred pursuant to the effective registration statement registering the Securities for resale (during such time that such registration statement is effective and not withdrawn or suspended, and only as permitted by such registration statement) or Rule 144 (if the transferor is not an Affiliate of the Company), or (ii) such Securities are eligible for sale under Rule 144, without the requirement for the Company to be in compliance with the current public information required under Rule 144 as to such securities and without volume or manner-of-sale restrictions. Following the earlier of (A) one year from the Closing Date or (B) Rule 144 becoming available for the resale of Securities, without the requirement for the Company to be in compliance with the current public information required under Rule 144 as to such securities and without volume or manner-of-sale restrictions, upon request of a Purchaser, the Company shall cause Company Counsel to issue to the Transfer Agent the legal opinion referred to in the Irrevocable Transfer Agent Instructions. Any fees (with respect to the Transfer Agent, Company Counsel or otherwise) associated with the issuance of such opinion or the removal of such legend shall be borne by the Company. Following such time as a legend is no longer required for certain Securities, the Company will no later than two (2) Trading Days following the delivery by a Purchaser to the Company (with notice to the Company) of a legended book entry statement representing Conversion Shares (endorsed or with stock powers attached, signatures guaranteed, and otherwise in form necessary to affect the reissuance and/or transfer) (such second (2nd) Trading Day, the "*Legend Removal Date*"), deliver or cause to be delivered via DTC to such Purchaser such Securities that are 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 4.1(c). Electronic certificates for Conversion Shares subject to legend removal hereunder may be transmitted by the Transfer Agent to the Purchasers by crediting the account of the Purchaser's prime broker with DTC as directed by such Purchaser.

(d) Irrevocable Transfer Agent Instructions. The Company shall issue irrevocable instructions to its transfer agent, and any subsequent transfer agent, in the form of Exhibit E attached hereto (the "*Irrevocable Transfer Agent Instructions*"). The Company represents and warrants that no instruction other than the Irrevocable Transfer Agent Instructions referred to in this Section 4.1(d) (or instructions that are consistent therewith) will be given by the Company to its transfer agent in connection with this

Agreement, and that the Securities shall otherwise be freely transferable on the books and records of the Company as and to the extent provided in this Agreement and the other Transaction Documents and applicable law. The Company acknowledges that a breach by it of its obligations under this Section 4.1(d) will cause irreparable harm to a Purchaser. Accordingly, the Company acknowledges that the remedy at law for a breach of its obligations under this Section 4.1(d) will be inadequate and agrees, in the event of a breach or threatened breach by the Company of the provisions of this Section 4.1(d), that a Purchaser shall be entitled, in addition to all other available remedies, to an order and/or injunction restraining any breach and requiring immediate issuance and transfer, without the necessity of showing economic loss and without any bond or other security being required.

(e) Acknowledgement. Each Purchaser hereunder acknowledges its responsibilities under the Securities Act and accordingly will not sell or otherwise transfer the Securities or any interest therein without complying with the requirements of the Securities Act. While the Resale Registration Statement remains effective, each Purchaser hereunder may sell the Conversion Shares in accordance with the plan of distribution contained in the Resale Registration Statement and if it does so it will comply therewith and with the related prospectus delivery requirements unless an exemption therefrom is available. Each Purchaser, severally and not jointly with the other Purchasers, agrees that if it is notified by the Company in writing at any time that the Resale Registration Statement registering the resale of the Conversion Shares is not effective or that the prospectus included in such Resale Registration Statement no longer complies with the requirements of Section 10 of the Securities Act, the Purchaser will refrain from selling such Conversion Shares until such time as the Purchaser is notified by the Company that such Resale Registration Statement is effective or such prospectus is compliant with Section 10 of the Securities Act, unless such Purchaser is able to, and does, sell such Conversion Shares pursuant to an available exemption from the registration requirements of Section 5 of the Securities Act. Both the Company and its Transfer Agent, and their respective directors, officers, employees and agents, may rely on this Section 4.1(e) and each Purchaser hereunder will indemnify and hold harmless each of such persons from any breaches or violations of this Section 4.1(e).

(f) Buy-In. If the Company shall fail for any reason or for no reason to issue via DTC to a Purchaser Securities that are free from all restrictive and other legends within two (2) Trading Days of receipt of all documents necessary for the removal of the legend set forth above, then, in addition to all other remedies available to such Purchaser, if on or after the Trading Day immediately following such two (2) Trading Day period, such Purchaser purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the holder of shares of Common Stock that such Purchaser anticipated receiving from the Company without any restrictive legend (a "Buy-In"), then the Company shall, within two (2) Trading Days after such Purchaser's request and in such Purchaser's sole discretion, (A) pay in cash to such Purchaser the amount by which (x) such Purchaser's total purchase price (including any brokerage commissions) for the shares of Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Purchaser 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 Purchaser, either reissue (if surrendered) the shares of Series A-2 Preferred Stock or Preferred Warrants Shares, as applicable, equal to the number of shares of Series A-2 Preferred Stock or Preferred Warrant Shares, as applicable, submitted for conversion or deliver to such Purchaser the number of shares of Common Stock that would have been issued if the Company had timely complied with its delivery requirements under this Section 4.1. The Purchaser shall provide the Company written notice, within three (3) Trading Days after the occurrence of a Buy-In, indicating the amounts payable to such Purchaser in respect of such Buy-In together with applicable confirmations and other evidence reasonably requested by the Company. Nothing herein shall limit a Purchaser's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon

conversion of the shares of Series A-2 Preferred Stock or Preferred Warrant Shares as required pursuant to the terms hereof; *provided, however*, that the Purchaser shall not be entitled to both (i) require the reissuance of the shares of Series A-2 Preferred Stock or Preferred Warrant Shares submitted for conversion for which such conversion was not timely honored and (ii) receive the number of shares of Common Stock that would have been issued if the Company had timely complied with its delivery requirements under this Section 4.1.

4.2.Reservation of Stock. The Company shall take all action necessary to at all times have authorized and reserved for the purpose of issuance from and after the Closing Date, for so long as any of the Shares, the Warrants and the Series A-2 Preferred Stock and the Preferred Warrant Shares are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued capital stock, solely for the purpose of effecting the conversion of the Shares, the exercise of the Warrants and the conversion of the Series A-2 Preferred Stock and the Preferred Warrant Shares, the maximum number of shares of Common Stock issuable upon the exercise or conversion thereof (without taking into account any limitations set forth in the Certificate of Designation).

4.3.Furnishing of Information. In order to enable the Purchasers to sell the Securities under Rule 144, for a period of twenty-four (24) months from the Closing, the Company shall use its commercially reasonable efforts to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to the Exchange Act. During such twenty-four (24) month period, if the Company is not required to file reports pursuant to the Exchange Act, it will prepare and furnish to the Purchasers and make publicly available in accordance with Rule 144(c) such information as is required for the Purchasers to sell the Securities under Rule 144.

4.4.Integration. The Company shall not, and shall use its commercially reasonable efforts to ensure that no Affiliate of the Company shall, sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) that will be integrated with the offer or sale of the Securities in a manner that would require the registration under the Securities Act of the sale of the Securities to the Purchasers, or that will be integrated with the offer or sale of the Securities for purposes of the rules and regulations of any Trading Market such that it would require stockholder approval prior to the closing of such other transaction unless stockholder approval is obtained before the closing of such subsequent transaction.

4.5.Securities Laws Disclosure; Publicity. By 9:00 A.M., New York City time, on the Trading Day immediately following the date hereof (provided that, if this Agreement is executed between midnight and 9:00 A.M., New York City time on any Trading Day, no later than 9:01 A.M. on the date hereof), the Company shall issue a press release (the “*Press Release*”) reasonably acceptable to the Purchasers disclosing all material terms of the transactions contemplated hereby. On or before 9:00 A.M., New York City time, on the second (2nd) Trading Day immediately following the execution of this Agreement, the Company will file a Current Report on Form 8-K with the Commission describing the terms of the Transaction Documents (and including as exhibits to such Current Report on Form 8-K the material Transaction Documents (including, without limitation, this Agreement, the Certificate of Designation, and the forms of Warrants and the Support Agreement)). Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Purchaser or an Affiliate of any Purchaser, or include the name of any Purchaser or an Affiliate of any Purchaser in any press release or filing with the Commission (other than the Resale Registration Statement) or any regulatory agency or Trading Market, without the prior written consent of such Purchaser, such consent not to be unreasonably withheld, except (i) as required by federal securities law in connection with (A) any registration statement contemplated by Section 4.15 hereto and (B) the filing of final Transaction Documents (including signature pages thereto) with the Commission and (ii) to the extent such disclosure is required by law, request of the Staff or Trading Market regulations, in which case the Company shall provide the Purchasers with prior written notice of such disclosure permitted

under this subclause (ii). From and after the issuance of the Press Release, no Purchaser shall be in possession of any material, non-public information received from the Company, any Subsidiary or any of their respective officers, directors, employees or agents, that is not disclosed in the Press Release unless a Purchaser shall have executed a written agreement regarding the confidentiality and use of such information. Each Purchaser, severally and not jointly with the other Purchasers, covenants that until such time as the transactions contemplated by this Agreement are required to be publicly disclosed by the Company in the Press Release, such Purchaser will maintain the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction) provided, however, that any disclosure may be made by the Purchaser to the Purchaser's representatives or agents, including, but not limited to, the Purchaser's legal, tax and investment advisors.

4.6.Shareholder Rights Plan. No claim will be made or enforced by the Company or, with the consent of the Company, any other Person, that any 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 any Purchaser could be deemed to trigger the provisions of any such plan or arrangement, in either case solely by virtue of receiving Securities under the Transaction Documents or under any other written agreement between the Company and the Purchasers.

4.7.Non-Public Information. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, including this Agreement, or as expressly required by any applicable securities law, the Company covenants and agrees that neither it, nor any other Person acting on its behalf, will provide any Purchaser or its agents or counsel with any information regarding the Company that constitutes, or that the Company believes constitutes, material non-public information without the express written consent of such Purchaser. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company.

4.8.Use of Proceeds. The Company shall use the net proceeds from the sale of the Shares and Warrants hereunder for working capital and general corporate purposes and shall not use such proceeds for: (a) the satisfaction of any portion of the Company's debt (other than (i) debt outstanding as of the date hereof, as disclosed in the SEC Reports, and (ii) payment of trade payables in the ordinary course of the Company's business and prior practices), (b) the repurchase or redemption of any Common Stock or Common Stock Equivalents or (c) the settlement of any outstanding litigation.

4.9.Indemnification of Purchasers. Subject to the provisions of this Section 4.9 (and in addition to the indemnification provisions set forth in Section 4.15), the Company will indemnify and hold each Purchaser and its directors, officers, 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 such Purchaser (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, 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 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 a Purchaser 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, with respect to any of the transactions contemplated by the Transaction Documents (unless such action is based upon a breach of such Purchaser's

representations, warranties or covenants under the Transaction Documents or any agreements or understandings such Purchaser may have with any such stockholder or any violations by the Purchaser of state or federal securities laws or any conduct by such Purchaser which constitutes fraud, gross negligence, willful misconduct or malfeasance). Promptly after receipt by any Person (the “*Indemnified Person*”) of notice of any demand, claim or circumstances which would or might give rise to a claim or the commencement of any action, proceeding or investigation in respect of which indemnity may be sought pursuant to this Section 4.9, such Indemnified Person shall promptly notify the Company in writing and the Company shall assume the defense thereof, including the employment of counsel reasonably satisfactory to such Indemnified Person, and shall assume the payment of all fees and expenses; *provided, however*, that the failure of any Indemnified Person so to notify the Company shall not relieve the Company of its obligations hereunder except to the extent that the Company is actually and materially prejudiced by such failure to notify. In any such proceeding, any Indemnified Person shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such Indemnified Person unless: (i) the Company and the Indemnified Person shall have mutually agreed to the retention of such counsel; (ii) the Company shall have failed promptly to assume the defense of such proceeding and to employ counsel reasonably satisfactory to such Indemnified Person in such proceeding; or (iii) in the reasonable judgment of counsel to such Indemnified Person, representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. The Company shall not be liable for any settlement of any proceeding effected without its written consent, which consent shall not be unreasonably withheld, delayed or conditioned. Without the prior written consent of the Indemnified Person, which consent shall not be unreasonably withheld, delayed or conditioned, the Company shall not effect any settlement of any pending or threatened proceeding in respect of which any Indemnified Person is or could have been a party and indemnity could have been sought hereunder by such Indemnified Person, unless such settlement includes an unconditional release of such Indemnified Person from all liability arising out of such proceeding.

4.10. Principal Trading Market Listing. In the time and manner required by the Principal Trading Market, the Company shall prepare and file with such Principal Trading Market an additional shares listing application covering all of the Conversion Shares and shall use its commercially reasonable efforts to take all steps necessary to cause all of the Conversion Shares to be approved for listing on the Principal Trading Market as promptly as possible thereafter.

4.11. Form D; Blue Sky. The Company agrees to timely file a Form D with respect to the Securities as required under Regulation D and to provide a copy thereof, promptly upon the written request of any Purchaser. The Company, on or before the Closing Date, shall take such action as the Company shall reasonably determine is necessary in order to obtain an exemption for or to qualify the Securities for sale to the Purchasers under applicable securities or “Blue Sky” laws of the states of the United States (or to obtain an exemption from such qualification) and shall provide evidence of such actions promptly upon the written request of any Purchaser.

4.12. Delivery of Shares and Warrants After Closing. The Company shall deliver, or cause to be delivered, the respective Shares and Warrants purchased by each Purchaser to such Purchaser within two (2) Trading Days of the Closing Date.

4.13. Short Sales and Confidentiality After The Date Hereof. Such Purchaser shall not, and shall cause its Trading Affiliates not to, engage, directly or indirectly, in any transactions in the Company’s securities (including, without limitation, any Short Sales involving the Company’s securities) during the period from the date hereof until the earlier of such time as (i) the transactions contemplated by this Agreement are first publicly announced in the Press Release or (ii) this Agreement is terminated in full pursuant to Section 6.18. Each Purchaser, severally and not jointly with the other Purchasers, covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the

Company in the Press Release, such Purchaser will maintain the confidentiality of the existence and terms of this transaction and the information included in the Transaction Documents. Notwithstanding the foregoing, no Purchaser makes any representation, warranty or covenant hereby that it will not engage in Short Sales in the securities of the Company after the time that the transactions contemplated by this Agreement are first publicly announced in the Press Release; *provided, however*, each Purchaser agrees, severally and not jointly with any Purchasers, that they will not enter into any Net Short Sales (as hereinafter defined) from the period commencing on the Closing Date and ending on the earliest of (x) the Effective Date or (y) the date that such Purchaser no longer holds any Securities. For purposes of this Section 4.13, a “*Net Short Sale*” by any Purchaser shall mean a sale of Common Stock by such Purchaser that is marked as a short sale and that is made at a time when there is no equivalent offsetting long position in Common Stock held by such Purchaser. For purposes of determining whether there is an equivalent offsetting position in Common Stock held by the Purchaser, Conversion Shares that have not yet been issued pursuant to the conversion of the Shares, Series A-2 Preferred Stock or Preferred Warrant Shares shall be deemed to be held long by the Purchaser, and the amount of shares of Common Stock held in a long position shall be all unconverted Conversion Shares (ignoring any exercise limitations included therein) issuable to such Purchaser on such date, plus any shares of Common Stock or Common Stock Equivalents otherwise then held by such Purchaser. Notwithstanding the foregoing, in the event that a Purchaser is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser’s assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser’s assets, the representation set forth above shall apply only with respect to the portion of assets managed by the portfolio manager that have knowledge about the financing transaction contemplated by this Agreement. Moreover, notwithstanding the foregoing, in the event that a Purchaser has sold Securities pursuant to Rule 144 prior to the Effective Date of the Resale Registration Statement and the Company has failed to deliver via DTC Securities that are free of all restrictive and other legends prior to the settlement date for such sale (assuming that such electronic certificates meet the requirements set forth in Section 4.1(c) for the removal of legends), the provisions of this Section 4.13 shall not prohibit the Purchaser from entering into Net Short Sales for the purpose of delivering shares of Common Stock in settlement of such sale.

4.14. Subsequent Equity Sales. Except for an Exempt Issuance, from the date hereof until ninety (90) days after the Effective Date, neither the Company nor any Subsidiary shall issue shares of Common Stock or Common Stock Equivalents; *provided, however*, the ninety (90) day period set forth in this Section 4.14 shall be extended for the number of Trading Days during such period in which (i) trading in the Common Stock is suspended by any Trading Market, or (ii) following the Effective Date, the Resale Registration Statement is not effective or the prospectus included in the Resale Registration Statement may not be used by the Purchasers for the resale of the Conversion Shares.

4.15. Registration Rights.

(a) Registration Procedures and Expenses. The Company shall:

(i) as soon as practicable following the filing of the Definitive Proxy Statement, but, in any event, not later than seven (7) days thereafter (the “*Filing Date*”), file a Resale Registration Statement with the Commission to register all of the Registrable Shares on Form S-3 under the Securities Act (providing for shelf registration of such Registrable Shares under Commission Rule 415). In the event that Form S-3 is not available for the registration of the Registrable Shares, the Company shall register the resale of the Registrable Shares on such other form as is available to the Company;

(ii) use its commercially reasonable efforts to cause such Resale Registration Statement required by Section 4.15(a)(i) to be declared effective as soon as practicable following the receipt of Stockholder Approval, but no later than ten (10) days following the receipt of Stockholder Approval (or,

in the event the Staff reviews and has oral or written comments to the Resale Registration Statement, within forty (40) days following the Filing Date) (the earlier of the foregoing or the applicable date set forth in Section 4.15(a)(vi), the “*Effectiveness Deadline*”), such efforts to include, without limiting the generality of the foregoing, preparing and filing with the Commission any financial statements or other information that is required to be filed prior to the effectiveness of such Resale Registration Statement;

(iii) prepare and file with the Commission such amendments and supplements to any Resale Registration Statements and the prospectus used in connection therewith as may be necessary to keep such Resale Registration Statements continuously effective and free from any material misstatement or omission to state a material fact therein until termination of such obligation as provided in Section 4.15(e) below, subject to the Company’s right to suspend pursuant to Section 4.15(d);

(iv) furnish to the Purchasers such number of copies of prospectuses in conformity with the requirements of the Securities Act and such other documents as the Purchasers may reasonably request, in order to facilitate the public sale or other disposition of all or any of the Registrable Shares by the Purchasers;

(v) file such documents as may be required of the Company for normal securities law clearance for the resale of the Registrable Shares in such states of the United States as may be reasonably requested by the Purchasers and use its commercially reasonable efforts to maintain such blue sky qualifications during the period the Company is required to maintain effectiveness of the Resale Registration Statements; *provided, however*, that the Company shall not be required in connection with this Section 4.15(a)(v) to qualify as a foreign corporation or execute a general consent to service of process in any jurisdiction in which it is not now so qualified or has not so consented;

(vi) upon notification by the Commission that the Resale Registration Statement will not be reviewed or is not subject to further review by the Commission, within three (3) Trading Days following the date of such notification, request acceleration of such Resale Registration Statement (with the requested effectiveness date to be not more than two (2) Trading Days later);

(vii) upon notification by the Commission that that the Resale Registration Statement has been declared effective (the date of such notification, the “*Effective Date*”) by the Commission, file the final prospectus under Rule 424 within the applicable time period prescribed by Rule 424;

(viii) advise the Purchasers promptly, and in any event within twenty-four (24) hours of (A) the effectiveness of the Resale Registration Statement or any post-effective amendments thereto, (B) any request by the Commission for amendments to the Resale Registration Statement or amendments to the prospectus or for additional information relating thereto, (C) the issuance by the Commission of any stop order suspending the effectiveness of the Resale Registration Statement under the Securities Act or of the suspension by any state securities commission of the qualification of the Registrable Shares for offering or sale in any jurisdiction, or the initiation of any proceeding for any of the preceding purposes and (D) the existence of any fact and the happening of any event that makes any statement of a material fact made in the Resale Registration Statement, the prospectus and amendment or supplement thereto, or any document incorporated by reference therein, untrue, or that requires the making of any additions to or changes in the Resale Registration Statement or the prospectus in order to make the statements therein not misleading;

(ix) cause all Registrable Shares to be listed on each securities exchange on which equity securities by the Company are then listed, if any; and

(x) bear all expenses in connection with the procedures in paragraphs (i) through (ix) of this Section 4.15(a) and the registration of the Registrable Shares on such Resale Registration Statement and the satisfaction of the blue sky laws of such states.

(b) Rule 415 Cutback. If at any time the Staff takes the position that the offering of some or all of the Registrable Shares in a Resale Registration Statement is not eligible to be made on a delayed or continuous basis under the provisions of Rule 415 under the Securities Act or requires any Purchaser to be named as an “underwriter,” the Company shall use its commercially reasonable efforts to persuade the Commission that the offering contemplated by such Resale Registration Statement is a valid secondary offering and not an offering “by or on behalf of the issuer” as defined in Rule 415 and that none of the Purchasers is an “underwriter.” The Purchasers shall have the right to review and oversee any registration or matters pursuant to this Section 4.15, including any participation in meetings or discussions with the Commission regarding the Commission’s position and to comment on any written submission made to the Commission with respect thereto. In the event that, despite the Company’s commercially reasonable efforts and compliance with the terms of this Section 4.15, the Staff refuses to alter its position, the Company shall (A) remove from the Resale Registration Statement such portion of the Registrable Shares (the “*Cut Back Shares*”) and/or (B) agree to such restrictions and limitations on the registration and resale of the Registrable Shares as the Commission may require to assure the Company’s compliance with the requirements of Rule 415 (collectively, the “*SEC Restrictions*”); *provided, however*, that the Company shall not agree to name any Purchaser as an “underwriter” in such Resale Registration Statement without the prior written consent of such Purchaser. Any cutback imposed on the Purchasers pursuant to this Section 4.15 shall be allocated among the Purchasers on a pro rata basis and shall be applied first to any of the Registrable Shares of such Purchaser as such Purchaser shall designate, unless the SEC Restrictions otherwise require or provide or the Purchasers otherwise agree. No damages shall accrue as to any Cut Back Shares until such date as the Company is able to effect the registration of such Cut Back Shares in accordance with any SEC Restrictions (such date, the “*Restriction Termination Date*” of such Cut Back Shares). From and after the Restriction Termination Date applicable to any Cut Back Shares, all of the provisions of this Section 4.15 shall again be applicable to such Cut Back Shares; *provided, however*, that (x) the filing deadline for the Resale Registration Statement including such Cut Back Shares shall be ten (10) Trading Days after such Restriction Termination Date, and (y) the Effectiveness Deadline with respect to such Cut Back Shares shall be the 90th day immediately after the Restriction Termination Date or the 120th day if the Staff reviews such Resale Registration Statement (but in any event no later than three (3) Trading Days from the Staff indicating it has no further comments on such Resale Registration Statement).

(c) Indemnification.

(i) The Company agrees to indemnify and hold harmless each Purchaser Party, to the fullest extent permitted by applicable law, from and against any losses, claims, damages or liabilities (collectively, “*Losses*”), joint or several, to which they may become subject (under the Securities Act or otherwise) insofar as such Losses (or actions or proceedings in respect thereof) arise out of, or are based upon, any material breach of this Agreement by the Company or any untrue or alleged untrue statement of a material fact contained in the Resale Registration Statement or any omission or alleged omission to state a material fact required to be stated in the prospectus contained therein or necessary to make the statements in the prospectus contained therein, in light of the circumstances under which they were made, not misleading or arise out of any failure by the Company to fulfill any undertaking included in the Resale Registration Statement and the Company will, as incurred, reimburse the Purchaser Parties for any legal or other expenses reasonably incurred in investigating, defending or preparing to defend any such action, proceeding or claim; *provided, however*, that the Company shall not be liable in any such case to the extent that such Loss arises out of, or is based upon: (A) an untrue statement or omission made in such Resale Registration Statement in reliance upon and in conformity with written information furnished to the Company by or on behalf of such Purchaser specifically for inclusion in the Resale Registration Statement

or (B) any breach of this Agreement by such Purchaser; *provided further, however*, that the Company shall not be liable to any Purchaser Party (or any partner, member, officer, director or controlling Person of the Purchasers) to the extent that any such Loss is caused by an untrue statement or omission made in any preliminary prospectus if either (1) (a) such Purchaser, if required, failed to send or deliver a copy of the final prospectus with or prior to, or such Purchaser failed to confirm that a final prospectus was deemed to be delivered prior to (in accordance with Rule 172 of the Securities Act), the delivery of written confirmation of the sale by such Purchaser to the Person asserting the claim from which such Loss resulted and (b) the final prospectus corrected such untrue statement or omission, (2) (x) such untrue statement or omission is corrected in an amendment or supplement to the prospectus and (y) having previously been furnished by or on behalf of the Company with copies of the prospectus as so amended or supplemented or notified by the Company that such amended or supplemented prospectus has been filed with the Commission, in accordance with Rule 172 of the Securities Act, such Purchaser thereafter fails to deliver such prospectus as so amended or supplemented, with or prior to or a Purchaser fails to confirm that the prospectus as so amended or supplemented was deemed to be delivered prior to (in accordance with Rule 172 of the Securities Act), the delivery of written confirmation of the sale by such Purchaser to the Person asserting the claim from which such Loss resulted or (3) such Purchaser sold Registrable Shares in violation of such Purchasers' covenants contained in ARTICLE IV of this Agreement.

(ii) Each Purchaser agrees, severally and not jointly, to indemnify and hold harmless the Company and its officers, directors, affiliates, agents and representatives and each Person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (each a "*Company Party*" and collectively the "*Company Parties*"), from and against any Losses to which the Company Parties may become subject (under the Securities Act or otherwise), insofar as such Losses (or actions or proceedings in respect thereof) arise out of, or are based upon, any material breach of this Agreement by such Purchaser or untrue statement of a material fact contained in the Resale Registration Statement (or any omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading in each case, on the effective date thereof), if, and only to the extent, such untrue statement or omission was made in reliance upon and in conformity with written information furnished by or on behalf of such Purchaser specifically for inclusion in the Resale Registration Statement, and each Purchaser, severally and not jointly, will reimburse each Company Party for any legal or other expenses reasonably incurred in investigating, defending or preparing to defend any such action, proceeding or claim; *provided, however*, that in no event shall any indemnity under this Section 4.15(c)(ii) be greater in amount than the dollar amount of the proceeds (net of all expenses paid by such Purchaser in connection with any claim relating to this Section 4.15 and the amount of any damages such Purchaser has otherwise been required to pay by reason of such untrue statement or omission) received by such Purchaser upon its sale of the Registrable Shares included in the Resale Registration Statement giving rise to such indemnification obligation.

(iii) Promptly after receipt by any indemnified Person of a notice of a claim or the beginning of any action in respect of which indemnity is to be sought against an indemnifying Person pursuant to this Section 4.15(c), such indemnified Person shall notify the indemnifying Person in writing of such claim or of the commencement of such action, and, subject to the provisions hereinafter stated, in case any such action shall be brought against an indemnified Person and such indemnifying Person shall have been notified thereof, such indemnifying Person shall be entitled to participate therein, and, to the extent that it shall wish, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified Person. After notice from the indemnifying Person to such indemnified Person of its election to assume the defense thereof, such indemnifying Person shall not be liable to such indemnified Person for any legal expenses subsequently incurred by such indemnified Person in connection with the defense thereof; *provided, however*, that if there exists or shall exist a conflict of interest that would make it inappropriate in the reasonable judgment of the indemnified Person for the same counsel to represent both

the indemnified Person and such indemnifying Person or any affiliate or associate thereof, the indemnified Person shall be entitled to retain its own counsel at the expense of such indemnifying Person; *provided, further*, that no indemnifying Person shall be responsible for the fees and expense of more than one separate counsel for all indemnified parties. The indemnifying party shall not settle an action without the consent of the indemnified party, which consent shall not be unreasonably withheld.

(iv) If after proper notice of a claim or the commencement of any action against the indemnified party, the indemnifying party does not choose to participate, then the indemnified party shall assume the defense thereof and upon written notice by the indemnified party requesting advance payment of a stated amount for its reasonable defense costs and expenses, the indemnifying party shall advance payment for such reasonable defense costs and expenses (the “*Advance Indemnification Payment*”) to the indemnified party. In the event that the indemnified party’s actual defense costs and expenses exceed the amount of the Advance Indemnification Payment, then upon written request by the indemnified party, the indemnifying party shall reimburse the indemnified party for such difference; in the event that the Advance Indemnification Payment exceeds the indemnified party’s actual costs and expenses, the indemnified party shall promptly remit payment of such difference to the indemnifying party.

(v) If the indemnification provided for in this Section 4.15(c) is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any losses, claims, damages or liabilities referred to herein, the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall to the extent permitted by applicable law contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other, as well as any other relevant equitable considerations; *provided*, that in no event shall any contribution by an indemnifying party hereunder be greater in amount than the dollar amount of the proceeds received by such indemnifying party upon the sale of such Registrable Shares. No person guilty of fraudulent misrepresentation within the meaning of Section 11(f) of the Securities Act shall be entitled to contribution from any person not guilty of such fraudulent misrepresentation.

(d) Prospectus Suspension. Each Purchaser acknowledges that there may be times when the Company must suspend the use of the prospectus forming a part of a Resale Registration Statement until such time as an amendment to such Resale Registration Statement has been filed by the Company and declared effective by the Commission, or until such time as the Company has filed an appropriate report with the Commission pursuant to the Exchange Act. Each Purchaser hereby covenants that it will not sell any Registrable Shares pursuant to said prospectus during the period commencing at the time at which the Company gives the Purchasers notice of the suspension of the use of said prospectus and ending at the time the Company gives the Purchasers notice that the Purchasers may thereafter effect sales pursuant to said prospectus; *provided*, that such suspension periods shall in no event exceed thirty (30) consecutive days or a total of sixty (60) days in any 12-month period and that, in the good faith judgment of the Board of Directors, the Company would, in the absence of such delay or suspension hereunder, be required under state or federal securities laws to disclose any corporate development, a potentially significant transaction or event involving the Company, or any negotiations, discussions, or proposals directly relating thereto, in either case the disclosure of which would reasonably be expected to have a Material Adverse Effect upon the Company or its stockholders.

(e) Termination of Obligations. The obligations of the Company pursuant to Section 4.15(a) hereof shall cease and terminate, with respect to any Registrable Shares, upon the earlier to occur of (i) such time such Registrable Shares have been resold, or (ii) such time as such Shares no longer remain Registrable Shares.

(f) Reporting Requirements. With a view to making available the benefits of certain rules and regulations of the Commission that may at any time permit the sale of the Registrable Shares to the public without registration or pursuant to a registration statement on Form S-3, the Company agrees to:

(i) make and keep public information available, as those terms are understood and defined in Rule 144; and

(ii) so long as a Purchaser owns Registrable Shares, to furnish to such Purchaser upon request (A) a written statement by the Company as to whether it is in compliance with the reporting requirements of Rule 144 and the Exchange Act, or whether it is qualified as a registrant whose securities may be resold pursuant to Commission Form S-3 and (B) such other information as may be reasonably requested to permit the Purchaser to sell such securities pursuant to Rule 144.

(g) Liquidated Damages. If (i) the Resale Registration Statement is not filed on or prior to its Filing Date or (ii) the Company fails to file with the Commission a request for acceleration of the Resale Registration Statement in accordance with Rule 461 promulgated by the Commission pursuant to the Securities Act, within five (5) Trading Days of the date of Stockholder Approval, assuming that the Company was notified (orally or in writing, whichever is earlier) by the Commission that such Resale Registration Statement will not be “reviewed” or will not be subject to further review, or (iii) prior to the effective date of the Resale Registration Statement, the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the Commission in respect of such Resale Registration Statement within ten (10) Trading Days after the receipt of comments by or notice from the Commission that such amendment is required in order for such Resale Registration Statement to be declared effective (iv) after the effective date of the Resale Registration Statement, such Resale Registration Statement ceases for any reason to remain continuously effective as to all Registrable Shares included in such Resale Registration Statement, or the Purchasers are otherwise not permitted to utilize the prospectus therein to resell such Registrable Shares, for more than ten (10) consecutive calendar days or more than an aggregate of fifteen (15) calendar days (which need not be consecutive calendar days) during any 12-month period (any such failure or breach being referred to as an “Event”, and for purposes of clauses (i), the date on which such Event occurs, and for purpose of clause (ii) the date on which such five (5) Trading Day period is exceeded, and for purpose of clause and (iii) the date which such ten (10) calendar day period is exceeded, and for purpose of clause (iv) the date on which such ten (10) or fifteen (15) calendar day period is exceeded, as applicable, being referred to as “Event Date”), then, in addition to any other rights the Holders may have hereunder or under applicable law, as liquidated damages on each such Event Date and on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall pay to each Holder an amount in cash, as partial liquidated damages and not as a penalty, equal to the product of 1.0% multiplied by the aggregate subscription amount paid by such Purchaser pursuant to this Agreement. The parties agree that the maximum aggregate liquidated damages payable to a Purchaser under this Agreement shall be 6.0% of the aggregate subscription amount paid by such Purchaser pursuant to this Agreement. If the Company fails to pay any partial liquidated damages pursuant to this Section 4.15(g) in full within seven days after the date payable, the Company will pay interest thereon at a rate of 12% per annum (or such lesser maximum amount that is permitted to be paid by applicable law) to the Purchaser, accruing daily from the date such partial liquidated damages are due until such amounts, plus all such interest thereon, are paid in full. The partial liquidated damages pursuant to the terms hereof shall apply on a daily pro rata basis for any portion of a month prior to the cure of an Event. Notwithstanding the foregoing, the Company shall not owe any liquidated damages to any Purchaser pursuant to this Section 4.15(g) if, at the time of the Event, such Purchaser may sell the Registrable Shares held by such Purchaser pursuant to Rule 144 without volume restrictions or current public information requirements.

4.16. Stockholder Approval. The Company shall, as soon as practicable following the Closing, but not more than twenty-one (21) days thereafter, file a preliminary proxy statement for a vote of its stockholders at a special meeting (the “*Special Meeting*”) to approve (i) the issuance of all Conversion Shares upon conversion of the Shares, shares of Series A-2 Preferred Stock and the Preferred Warrant Shares, (ii) the issuance of the Preferred Warrant Shares upon exercise of the Warrants and (iii) an amendment to the Company’s Certificate of Incorporation to increase the number of authorized shares of Common Stock from 490,000,000 to 800,000,000 (together, the “*Proposals*”). The Company, as soon as practicable following notification from the Staff that it has completed its review of the preliminary proxy statement or that it will not review the preliminary proxy statement, file and mail a definitive proxy statement for the vote of its stockholders to approve the Proposals (the “*Definitive Proxy Statement*”). The Company covenants and agrees that its Board of Directors shall unanimously recommend that the Proposals be approved by the Company’s stockholders at the Special Meeting and at all meetings in which such Proposals are considered. If the Company’s stockholders do not approve such Proposals at the first Special Meeting in which they are voted on by stockholders, the Company covenants and agrees that it will submit the Proposals for approval of the Company’s stockholders at least semi-annually until such approval is obtained.

ARTICLE V.
CONDITIONS PRECEDENT TO CLOSING

5.1. Conditions Precedent to the Obligations of the Purchasers to Purchase Securities. The obligation of each Purchaser to acquire Shares and Warrants at the Closing is subject to the fulfillment to such Purchaser’s satisfaction, on or prior to the Closing Date, of each of the following conditions, any of which may be waived by such Purchaser (as to itself only):

(a) Representations and Warranties. The representations and warranties of the Company contained herein shall be true and correct in all material respects (except for those representations and warranties which are qualified as to materiality, in which case such representations and warranties shall be true and correct in all respects) as of the date when made and as of the Closing Date, as though made on and as of such date, except for such representations and warranties that speak as of a specific date.

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

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

(d) Consents. Other than the Stockholder Approval, the Company shall have obtained in a timely fashion any and all consents, permits, approvals, registrations and waivers necessary for consummation of the purchase and sale of the Securities (including all Required Approvals), all of which shall be and remain so long as necessary in full force and effect.

(e) Adverse Changes. Since the date of execution of this Agreement, no event or series of events shall have occurred that has had or would reasonably be expected to have a Material Adverse Effect.

(f) Listing. The Conversion Shares shall be duly authorized for listing by Nasdaq, subject to official notice of issuance, to the extent required by the rules of Nasdaq.

(g) No Suspensions of Trading in Common Stock. The Common Stock shall not have been suspended, as of the Closing Date, by the Commission or the Principal Trading Market from trading on the Principal Trading Market nor shall suspension by the Commission or the Principal Trading Market have been threatened, as of the Closing Date, either (i) in writing by the Commission or the Principal Trading Market or (ii) by falling below the minimum listing maintenance requirements of the Principal Trading Market.

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

(i) Compliance Certificate. The Company shall have delivered to each Purchaser a certificate, dated as of the Closing Date and signed by its Chief Executive Officer or its Chief Financial Officer, certifying to the fulfillment of the conditions specified in Sections 5.1(a) and 5.1(b) in the form attached hereto as Exhibit H.

(j) Due diligence. The Company shall have provided the Purchasers with all documents and materials reasonably requested by the Purchasers in connection with their due diligence review.

(k) Termination. This Agreement shall not have been terminated as to such Purchaser in accordance with Section 6.18 herein.

5.2. Conditions Precedent to the Obligations of the Company to sell Securities. The Company's obligation to sell and issue the Shares and Warrants at the Closing to the Purchasers is subject to the fulfillment to the satisfaction of the Company on or prior to the Closing Date of the following conditions, any of which may be waived by the Company:

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

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

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

(d) Purchasers Deliverables. Such Purchaser shall have delivered its Purchaser Deliverables in accordance with Section 2.2(b).

(e) Termination. This Agreement shall not have been terminated as to such Purchaser in accordance with Section 6.18 herein.

ARTICLE VI.
MISCELLANEOUS

6.1. Fees and Expenses. The Company shall pay all Transfer Agent fees, stamp taxes and other taxes and duties levied in connection with the sale and issuance of the Securities to the Purchasers and all expenses in connection with obtaining Stockholder Approval and the registration of the Conversion Shares. The Company shall reimburse RA Capital Healthcare Fund, L.P. for reasonable costs and expenses incurred in connection with the transactions contemplated by the Transaction Documents, including without limitation its reasonable and documented legal fees and expenses, up to an aggregate amount of \$75,000.

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

6.3. 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 date of transmission, if such notice or communication is delivered via electronic mail (*provided* the sender receives a confirmation of such email delivery) at the email address specified in this Section 6.3 prior to 5:00 P.M., New York City time, on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via electronic mail at the email address specified in this Section 6.3 on a day that is not a Trading Day or later than 5:00 P.M., New York City time, on any Trading Day, (c) the Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service with next day delivery specified, 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 follows:

If to the Company: SAB Biotherapeutics, Inc.
2100 East 54th Street North
Sioux Falls, South Dakota, 57104
Attention: Eddie Sullivan
Email: eddie@sab.bio

With a copy to: Dentons US LLP
Ilan Katz and Brian Lee
1221 Avenue of the Americas
New York, NY 10020
Email: Ilan.Katz@Dentons.com; Brian.Lee@Dentons.com

If to a Purchaser: To the address set forth under such Purchaser's name on the signature page hereof; or such other address as may be designated in writing hereafter, in the same manner, by such Person.

6.4. Amendments; Waivers; No Additional Consideration. No provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an amendment, by the Company and the Purchasers of at least a majority in interest of the Securities, if prior to the Closing Date, to be purchased by the Purchasers hereunder, or, if after the Closing Date, still held by Purchasers or, in the case of a waiver, by the party against whom enforcement of any such waiver 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 either party to exercise any right hereunder in any manner impair the exercise of any such right. No consideration shall be offered or paid to any Purchaser to amend or consent to a waiver or modification of any provision of any Transaction Document unless the same consideration is also offered to all Purchasers who then hold Securities. Any amendment, modification, termination or waiver effected in accordance with this Section 6.4 shall be binding on each party and all of such party's successors and permitted assigns, whether or not any such party, successor or assignee entered into or approved such amendment, modification, termination or waiver.

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

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

6.7.No Third-Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except (i) each Purchaser Party is an intended third party beneficiary of Section 4.9 and (ii) the Placement Agent 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 Purchasers in Section 3.2.

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

LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

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

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

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

6.12.Rescission and Withdrawal Right. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) the Transaction Documents, whenever any 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 such 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.

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

6.14.Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each of the Purchasers and the Company will be entitled to 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 described in the foregoing sentence and hereby agree to waive in any action for specific performance of any such obligation (other than in connection with any action for a temporary restraining order) the defense that a remedy at law would be adequate.

6.15.Payment Set Aside. To the extent that the Company makes a payment or payments to any 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.

6.16. Adjustments in Share Numbers and Prices. In the event of any stock split, subdivision, dividend or distribution payable in shares of Common Stock (or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly shares of Common Stock), combination or other similar recapitalization or event occurring after the date hereof and prior to the Closing, each reference in any Transaction Document to a number of shares or a price per share shall be deemed to be amended to appropriately account for such event.

6.17. Independent Nature of Purchasers' Obligations and Rights. The obligations of each Purchaser under any Transaction Document are several and not joint with the obligations of any other Purchaser, and no Purchaser shall be responsible in any way for the performance of the obligations of any other Purchaser under any Transaction Document. The decision of each Purchaser to purchase Securities pursuant to the Transaction Documents has been made by such Purchaser independently of any other Purchaser and independently of any information, materials, statements or opinions as to the business, affairs, operations, assets, properties, liabilities, results of operations, condition (financial or otherwise) or prospects of the Company or any Subsidiary which may have been made or given by any other Purchaser or by any agent or employee of any other Purchaser, and no Purchaser and any of its agents or employees shall have any liability to any other Purchaser (or any other Person) relating to or arising from any such information, materials, statement or opinions. Nothing contained herein or in any Transaction Document, and no action taken by any Purchaser pursuant thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Purchaser acknowledges that no other Purchaser has acted as agent for such Purchaser in connection with making its investment hereunder and that no Purchaser will be acting as agent of such Purchaser in connection with monitoring its investment in the Securities or enforcing its rights under the Transaction Documents. Each Purchaser shall be entitled to independently protect and enforce its rights, including without limitation the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Purchaser to be joined as an additional party in any proceeding for such purpose. Each Purchaser has been represented by its own separate legal counsel in its review and negotiation of the Transaction Documents. The Company has elected to provide all Purchasers with the same terms and Transaction Documents for the convenience of the Company and not because it was required or requested to do so by any Purchaser.

6.18. Termination. This Agreement may be terminated and the sale and purchase of the Shares abandoned at any time prior to the Closing by either the Company or any Purchaser (with respect to itself only) upon written notice to the other, if the Closing has not been consummated on or prior to 5:00 P.M., New York City time, on the Outside Date; *provided, however*, that the right to terminate this Agreement under this Section 6.18 shall not be available to any Person whose failure to comply with its obligations under this Agreement has been the cause of or resulted in the failure of the Closing to occur on or before such time. Nothing in this Section 6.18 shall be deemed to release any party from any liability for any breach by such party of the terms and provisions of this Agreement or the other Transaction Documents or to impair the right of any party to compel specific performance by any other party of its obligations under this Agreement or the other Transaction Documents. In the event of a termination pursuant to this Section 6.18, the Company shall promptly notify all non-terminating Purchasers. Upon a termination in accordance with this Section 6.18, the Company and the terminating Purchaser(s) shall not have any further obligation

or liability (including arising from such termination) to the other, and no Purchaser will have any liability to any other Purchaser under the Transaction Documents as a result therefrom.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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.

SAB BIOTHERAPEUTICS, INC.

By: _____

Name: Eddie Sullivan

Title: Chief Executive Officer

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

NAME OF
PURCHASER: _____

By:
Name:
Title:

Aggregate Purchase Price (Subscription Amount):
[Aggregate Closing subscriptions should equal \$7,500,000]

\$ _____

Number of Shares to be Acquired: _____

Underlying Shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock Subject to Tranche A
Warrant:

[Aggregate Tranche A Warrant Proceeds should equal \$70,500,000]

Underlying Shares of Series A-3 Preferred Stock Subject to Tranche B Warrant:

[Aggregate Tranche B Warrant Proceeds should equal \$52,000,000]

Underlying Shares of Series A-3 Preferred Stock Subject to Tranche C Warrant:

[Aggregate Tranche C Warrant Proceeds should equal \$130,000,000]

Tax ID No.: _____

Address for Notice: _____

Telephone No.: _____

E-mail Address: _____

Attention: _____

Delivery Instructions:
(if different than above)

c/o _____

Street: _____

City/State/Zip: _____

Attention: _____

Telephone No.: _____

EXHIBITS:

- A: Form of Tranche A Warrant
 - B: Form of Tranche B Warrant
 - C: Form of Tranche C Warrant
 - D: Certificate of Designation
 - E-1: Accredited Investor Questionnaire
 - E-2: Book Entry Questionnaire
 - F: Form of Irrevocable Transfer Agent Instructions
 - G: Form of Secretary's Certificate
 - H: Form of Officer's Certificate
 - I: Wire Instructions
 - J: Form of Support Agreement
-

EXHIBIT A

FORM OF TRANCHE A WARRANT

EXHIBIT B

FORM OF TRANCHE B WARRANT

EXHIBIT C

FORM OF TRANCHE C WARRANT

EXHIBIT D

CERTIFICATE OF DESIGNATION

INSTRUCTION SHEET

(to be read in conjunction with the entire Securities Purchase Agreement)

A. Complete the following items in the Securities Purchase Agreement:

1. Provide the information regarding the Purchaser requested on the signature page. The Securities Purchase Agreement must be executed by an individual authorized to bind the Purchaser.
2. Exhibit E-1 – Accredited Investor Questionnaire:

Provide the information requested by the Accredited Investor Questionnaire

3. Exhibit E-2 Stock Certificate Questionnaire:

Provide the information requested by the Book Entry Questionnaire

4. Annex A Selling Securityholder Notice and Questionnaire

Provide the information requested by the Selling Securityholder Notice and Questionnaire

B. Instructions regarding the transfer of funds for the purchase of Shares and Warrants is set forth on Exhibit I to the Securities Purchase Agreement.

EXHIBIT E-1

ACCREDITED INVESTOR QUESTIONNAIRE

(ALL INFORMATION WILL BE TREATED CONFIDENTIALLY)

To: SAB Biotherapeutics, Inc.

This Investor Questionnaire (“*Questionnaire*”) must be completed by each potential investor in connection with the offer and sale of the shares of the Series A-1 Preferred Stock, par value \$0.0001 per share (“*Series A-1 Preferred Stock*”), Series A-2 Preferred Stock, par value \$0.0001 per share, that may be issued upon conversion of the Series A-1 Preferred Stock, shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock, par value \$0.0001 per share (“*Series A-3 Preferred Stock*”), that may be issued upon exercise of the Tranche A Warrants, Series A-3 Preferred Stock that may be issued upon exercise of the Tranche B Warrants and shares of Series A-3 Preferred Stock that may be issued upon exercise of the Tranche C Warrants (the “*Securities*”) of SAB Biotherapeutics, Inc., a Delaware corporation (the “*Corporation*”). The Securities are being offered and sold by the Corporation without registration under the Securities Act of 1933, as amended (the “*Act*”), and the securities laws of certain states, in reliance on the exemptions contained in Section 4(2) of the Act and on Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. The Corporation must determine that a potential investor meets certain suitability requirements before offering or selling Securities to such investor. The purpose of this Questionnaire is to assure the Corporation that each investor will meet the applicable suitability requirements. The information supplied by you will be used in determining whether you meet such criteria, and reliance upon the private offering exemptions from registration is based in part on the information herein supplied.

This Questionnaire does not constitute an offer to sell or a solicitation of an offer to buy any security. Your answers will be kept strictly confidential. However, by signing this Questionnaire, you will be authorizing the Corporation to provide a completed copy of this Questionnaire to such parties as the Corporation deems appropriate in order to ensure that the offer and sale of the Securities will not result in a violation of the Act or the securities laws of any state and that you otherwise satisfy the suitability standards applicable to purchasers of the Securities. All potential investors must answer all applicable questions and complete, date and sign this Questionnaire. Please print or type your responses and attach additional sheets of paper if necessary to complete your answers to any item.

PART A. BACKGROUND INFORMATION

Name of Beneficial Owner of the Securities:

Business Address:

(Number and Street)

(City)

(State)

(Zip Code)

Telephone Number: (____)

If a corporation, partnership, limited liability company, trust or other entity:

Type of entity:

State of formation: _____

Approximate Date of formation: _____

Were you formed for the purpose of investing in the securities being offered?

Yes ____ No ____

If an individual:

Residence Address:

(Number and Street)

(City)

(State)

(Zip Code)

Telephone Number: (____)

Age: _____ Citizenship: _____ Where registered to vote: _____

Set forth in the space provided below the state(s), if any, in the United States in which you maintained your residence during the past two years and the dates during which you resided in each state:

Are you a director or executive officer of the Corporation?

Yes ____ No ____

Social Security or Taxpayer Identification No.

PART B. ACCREDITED INVESTOR QUESTIONNAIRE

In order for the Company to offer and sell the Securities in conformance with state and federal securities laws, the following information must be obtained regarding your investor status. Please initial each category applicable to you as a Purchaser of Securities of the Company.

- ___ (1) A bank as defined in Section 3(a)(2) of the Securities Act, or any savings and loan association or other institution as defined in Section 3(a)(5)(A) of the Securities Act whether acting in its individual or fiduciary capacity;
 - ___ (2) A broker or dealer registered pursuant to Section 15 of the Securities Exchange Act of 1934;
 - ___ (3) An insurance company as defined in Section 2(13) of the Securities Act;
 - ___ (4) An investment company registered under the Investment Company Act of 1940 or a business development company as defined in Section 2(a)(48) of that Act;
 - ___ (5) A Small Business Investment Company licensed by the U.S. Small Business Administration;
 - ___ (6) A Rural Business Investment Company as defined in Section 384A of the Consolidated Farm and Rural Development Act of 1972, as amended;
 - ___ (7) A plan established and maintained by a state, its political subdivisions, or any agency or instrumentality of a state or its political subdivisions, for the benefit of its employees, if such plan has total assets in excess of \$5,000,000;

 - ___ (8) An employee benefit plan within the meaning of the Employee Retirement Income Security Act of 1974, if the investment decision is made by a plan fiduciary, as defined in Section 3(21) of such act, which is either a bank, savings and loan association, insurance company, or registered
-

investment adviser, or if the employee benefit plan has total assets in excess of \$5,000,000 or, if a self-directed plan, with investment decisions made solely by persons that are accredited investors;

- ___ (9) A private business development company as defined in Section 202(a)(22) of the Investment Advisers Act of 1940;
 - ___ (10) A tax-exempt organization described in Section 501(c)(3) of the Internal Revenue Code, a corporation, Massachusetts or similar business trust, partnership or limited liability company, not formed for the specific purpose of acquiring the Securities, with total assets in excess of \$5,000,000;
 - ___ (11) A trust, with total assets in excess of \$5,000,000, not formed for the specific purpose of acquiring the Securities, whose purchase is directed by a sophisticated person who has such knowledge and experience in financial and business matters that such person is capable of evaluating the merits and risks of investing in the Company;
 - ___ (12) A revocable trust (including a revocable trust formed for the specific purpose of acquiring an interest in the Company) and the grantor or settlor of such trust is an Accredited Investor;
 - ___ (13) A “family office” as defined in Rule 202(a)(11)(G)-1 under the Advisers Act, (a) with assets under management in excess of \$5,000,000, (b) that was not formed for the specific purpose of acquiring interests in the Company, and (c) whose prospective investment in the Company is directed by a person who has such knowledge and experience in financial and business matters that such family office is capable of evaluating the merits and risks of an investment in the Company (such a family office, a “Qualified Family Office”);
 - ___ (14) A “family client,” as defined in Rule 202(a)(11)(G)-1 under the Advisers Act, whose prospective investment in the Company is directed by its Qualified Family Office;
 - ___ (15) A natural person whose individual net worth, or joint net worth with that person’s spouse (excluding primary residence), at the time of his purchase exceeds \$1,000,000;
 - ___ (16) A natural person who had an individual income in excess of \$200,000 in each of the two most recent years, or joint income with that person’s spouse in excess of \$300,000, in each of those years, and has a reasonable expectation of reaching the same income level in the current year;
 - ___ (17) A natural person who holds in good standing one or more of the following professional certifications: General Securities Representative license (Series 7), Private Securities Offerings Representative license (Series 82), or Investment Adviser Representative license (Series 65)
 - ___ (18) A “family client,” as defined in Rule 202(a)(11)(G)-1 under the U.S. Investment Advisers Act of 1940, whose prospective investment in the Company is directed by that person’s Qualified Family Office.
 - ___ (19) An entity in which all of the equity owners qualify under any of the above subparagraphs. If the undersigned belongs to this investor category only, list the equity owners of the undersigned, and the investor category which each such equity owner satisfies.
-

A. FOR EXECUTION BY AN INDIVIDUAL:

Date _____ By _____
Print Name: _____

B. FOR EXECUTION BY AN ENTITY:

Entity Name: _____
Date _____ By _____
Print Name: _____
Title: _____

C. ADDITIONAL SIGNATURES (if required by partnership, corporation or trust document):

Entity Name: _____
Date _____ By _____
Print Name: _____
Title: _____
Entity Name: _____

Date _____ By _____
Print Name: _____
Title: _____

EXHIBIT E-2

BOOK-ENTRY QUESTIONNAIRE

Pursuant to Section 2.2(b) of the Agreement, please provide us with the following information:

1. The exact name that the Securities are to be registered in (this is the name that will appear on the book-entry statement(s)). You may use a nominee name if appropriate:
 2. The relationship between the Purchaser of the Securities and the Registered Holder listed in response to Item 1 above:
 3. The mailing address, telephone and telecopy number of the Registered Holder listed in response to Item 1 above:
 4. The Tax Identification Number (or, if an individual, the Social Security Number) of the Registered Holder listed in response to Item 1 above:
-

EXHIBIT F

IRREVOCABLE TRANSFER AGENT INSTRUCTIONS

As of October [2], 2023

Continental Stock Transfer & Trust Company
1 State Street, 30th Floor
New York, NY 10004-1561
Attn: Henry Farrell

Ladies and Gentlemen:

Reference is made to that certain Securities Purchase Agreement, dated as of September [29], 2023 (the “*Agreement*”), by and among SAB Biotherapeutics, Inc., a Delaware corporation (the “*Company*”), and the purchasers named on the signature pages thereto (collectively, and including permitted transferees, the “*Holder*s”), pursuant to which the Company is issuing to the Holders (i) an aggregate of 7,500 shares (the “*Shares*”) of Series A-1 Preferred Stock of the Company, par value \$0.0001 per share (the “*Series A-1 Preferred Stock*”), which are convertible into shares of common stock, par value \$0.0001 per share, of the Company (“*Common Stock*”) and, if applicable, shares of Series A-2 Preferred Stock of the Company, par value \$0.0001 per share (the “*Series A-2 Preferred Stock*”) in lieu of Common Stock, (ii) tranche A warrants (the “*Tranche A Warrants*”) to acquire shares of Series A-1 Preferred Stock or Series A-3 Preferred Stock, par value \$0.0001 per share, of the Company (the “*Series A-3 Preferred Stock*” and together with the Series A-1 Preferred Stock and Series A-2 Preferred Stock, the “*Preferred Stock*”), (iii) tranche B warrants (the “*Tranche B Warrants*”) to acquire shares of Series A-3 Preferred Stock and (iv) tranche C warrants to acquire shares of Series A-3 Preferred Stock (the “*Tranche C Warrants*” and together with the Tranche A Warrants and Tranche B Warrants, the “*Tranche Warrants*” and the shares of Preferred Stock underlying the Tranche Warrants, the “*Tranche Warrant Shares*”). The shares of Common Stock issuable upon conversion of the Series A-1 Preferred Stock, Series A-2 Preferred Stock and the Series A-3 Preferred Stock are herein referred to as the “*Conversion Shares*.” In addition

This letter shall serve as our irrevocable authorization and direction to you (provided that you are the transfer agent of the Company at such time and the conditions set forth in this letter are satisfied), subject to any stop transfer instructions that we may issue to you from time to time, if any:

(i) to issue certificates or book-entry credits representing the 7,500 Shares representing ownership by the investors set forth on Annex A hereto;

(ii) to reflect on your records that an aggregate of 70,500 shares of Series A-1 Preferred Stock and 70,500 shares of Series A-3 Preferred Stock are reserved for issuance upon exercise of the Tranche A Warrants issued to the investors as set forth on Annex A hereto;

(iii) to reflect on your records that an aggregate of 52,5000 shares of Series A-3 Preferred Stock are reserved for issuance upon exercise of the Tranche B Warrants issued to the investors as set forth on Annex A hereto;

(iv) to reflect on your records that an aggregate of 130,000 shares of Series A-3 Preferred Stock are reserved for issuance upon exercise of the Tranche C Warrants issued to the investors as set forth on Annex A hereto;

(v) to reflect on your records that an aggregate of [] shares of Common Stock representing the Conversion Shares issuable to investors as set forth on Annex A hereto, are reserved for issuance upon exercise of the Shares;

(vi) to issue certificates or book-entry credits representing shares of Common Stock upon transfer or resale of the Conversion Shares pursuant to the effective registration statement registering the Conversion Shares for resale (during such time that such registration statement is effective and not withdrawn or suspended, and only as permitted by such registration statement) or Rule 144 under the Securities Act (“*Rule 144*”) (if the transferor is not an Affiliate (as defined in Rule 144) of the Company); and

(vii) to issue shares of Common Stock upon the conversion of the Series A-1 Preferred Stock, Series A-2 Preferred Stock and Series A-3 Preferred Stock to or upon the order of a Holder from time to time upon delivery to you of a properly completed and duly executed notice of conversion, in the form attached hereto as Annex II, which has been acknowledged by the Company as indicated by the signature of a duly authorized officer of the Company thereon together with indication of receipt of the exercise price therefor.

PLEASE NOTE THAT THE SHARES, TRANCHE WARRANT SHARES AND CONVERSION SHARES HAVE NOT BEEN REGISTERED WITH THE U.S. SECURITIES AND EXCHANGE COMMISSION, AND SHALL BE ISSUED ON YOUR RECORDS AS UNCERTIFICATED BOOK ENTRY SHARES WITH THE FOLLOWING RESTRICTIVE LEGEND:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OR (B) AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY AND ITS TRANSFER AGENT OR (II) UNLESS SOLD PURSUANT TO RULE 144 UNDER THE SECURITIES ACT. 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.

Notwithstanding the foregoing, you further acknowledge and agree that so long as you have received (a) written confirmation from the Company’s legal counsel that the Conversion Shares have been sold in conformity with Rule 144 under the Securities Act (“*Rule 144*”) or are eligible for sale under Rule 144, without the requirement for the Company to be in compliance with the current public information required under Rule 144 as to such securities and without volume or manner-of-sale restrictions, then, unless otherwise required by law, within two (2) Trading Days of your receipt of a notice of transfer, you shall issue the certificates or book-entry credits representing the Conversion Shares, registered in the names of such Holders or transferees, as the case may be, and such certificates or book-entry credits shall not bear any legend restricting transfer of the Conversion Shares thereby and should not be subject to any stop-transfer restriction; *provided, however*, that if such Conversion Shares are not able to be sold under Rule 144 without the requirement for the Company to be in compliance with the current public information required under Rule 144 as to such securities and without volume or manner-of-sale restrictions, then the certificates or book-entry credits for such Conversion Shares shall bear the legend set forth immediately above.

Please be advised that the Holders are relying upon this letter as an inducement to enter into the Agreement and, accordingly, each Holder is a third party beneficiary to these instructions.

Please execute this letter in the space indicated to acknowledge your agreement to act in accordance with these instructions.

Very truly yours,

SAB BIOTHERAPEUTICS, INC.

By: _____

Name: Eddie Sullivan

Title: Chief Executive Officer

Acknowledged and Agreed:

Continental Stock Transfer & Trust Company

By: _____

Name: _____

Title: _____

Date: _____, _____

Annex I

[INVESTOR/OWNERSHIP TABLE]

Annex II

FORM NOTICE OF CONVERSION

EXHIBIT G

FORM OF SECRETARY'S CERTIFICATE

The undersigned hereby certifies that he is the duly elected, qualified and acting Secretary of SAB Biotherapeutics, Inc., a Delaware corporation (the "*Company*"), and that as such he is authorized to execute and deliver this certificate in the name and on behalf of the Company and in connection with the Securities Purchase Agreement, dated as of September __, 2023, by and among the Company and the investors party thereto (the "*Securities Purchase Agreement*"), and further certifies in his official capacity, in the name and on behalf of the Company, the items set forth below. Capitalized terms used but not otherwise defined herein shall have the meaning set forth in the Securities Purchase Agreement.

1. Attached hereto as Exhibit A is a true, correct and complete copy of the resolutions duly adopted by the Board of Directors of the Company at a meeting of the Board of Directors held on September __, 2023 approving (i) the transactions contemplated by the Securities Purchase Agreement and the other Transaction Documents, (ii) the filing of the Certificate of Designation and (iii) the issuance of the Securities. Such resolutions have not in any way been amended, modified, revoked or rescinded, have been in full force and effect since their adoption to and including the date hereof and are now in full force and effect.
2. Attached hereto as Exhibit B is a true, correct and complete copy of the Certificate of Incorporation of the Company, together with any and all amendments thereto currently in effect, and no action has been taken to further amend, modify or repeal such Certificate of Incorporation, the same being in full force and effect in the attached form as of the date hereof.
3. Attached hereto as Exhibit C is a true, correct and complete copy of the Bylaws of the Company and any and all amendments thereto currently in effect, and no action has been taken to further amend, modify or repeal such Bylaws, the same being in full force and effect in the attached form as of the date hereof.
4. Attached hereto as Exhibit D is a true, correct and complete copy of the Certificate of Designation of the Series A Convertible Preferred Stock, and no action has been taken to amend, modify or repeal such Certificate of Designation, the same being in full force and effect in the attached form as of the date hereof.
5. Each person listed below has been duly elected or appointed to the position(s) indicated opposite his name and is duly authorized to sign each of the Transaction Documents and related documents on behalf of the Company, and the signature appearing opposite such person's name below is such person's genuine signature.

<u>Name</u>	<u>Position</u>	<u>Signature</u>
Eddie Sullivan	Chief Executive Officer	
Russel Beyer	Chief Financial Officer	

IN WITNESS WHEREOF, the undersigned has hereunto set his hand as of this ____ day of _____, ____.

Secretary

I, Eddie Sullivan, Chief Executive Officer, hereby certify that [Insert Name] is the duly elected, qualified and acting Secretary of the Company and that the signature set forth above is his true signature.

Chief Executive Officer

Resolutions

Certificate of Incorporation

Bylaws

EXHIBIT H

FORM OF OFFICER'S CERTIFICATE

The undersigned, the Chief Executive Officer of SAB Biotherapeutics, Inc., a Delaware corporation (the "*Company*"), pursuant to Section 5.1(i) of the Securities Purchase Agreement, dated as of _____, by and among the Company and the investors signatory thereto (the "*Securities Purchase Agreement*"), hereby represents, warrants and certifies as follows (capitalized terms used but not otherwise defined herein shall have the meaning set forth in the Securities Purchase Agreement):

1. The representations and warranties of the Company contained in the Securities Purchase Agreement are true and correct in all material respects (except for those representations and warranties which are qualified as to materiality, in which case, such representations and warranties shall be true and correct in all respects) as of the date when made and as of the date hereof, as though made on and as of such date, except for such representations and warranties that speak as of a specific date.
2. The Company has performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by it at or prior to the date hereof.

IN WITNESS WHEREOF, the undersigned has executed this certificate this ___ day of _____, ____.

Chief Executive Officer

EXHIBIT I

WIRE INSTRUCTIONS

ABA #

Account No.: _____

Account Name: _____

EXHIBIT J

FORM OF SUPPORT AGREEMENT

ANNEX A

Selling Securityholder Notice and Questionnaire

SAB Biotherapeutics Announces Private Placement of up to \$130 Million to Advance Development of Lead Drug Candidate for Type 1 Diabetes

Funding to support clinical advancement of SAB-142, a potential disease-modifying treatment

Financing led by RA Capital Management, with participation from BVF Partners, Sessa Capital, Commodore Capital, RTW Investments, Marshall Wace, and the JDRF T1D Fund

SIoux FALLS, S.D., October 2, 2023 (GLOBE NEWSWIRE) – SAB Biotherapeutics (Nasdaq: SABS), a clinical-stage biopharmaceutical company with a novel immunotherapy platform that is developing fully-human anti-thymocyte immunoglobulin (hIgG) for delaying the onset or progression of type 1 diabetes (T1D), today announced the Company has entered into a securities purchase agreement (the “Securities Purchase Agreement”) with certain accredited investors (the “Investors”), pursuant to which the Company agreed to issue and sell shares of preferred stock in a private placement (the “Offering”). The Offering will provide up to \$130 million in gross proceeds to SAB, which will be used to fund the company’s lead research program, SAB-142, a potential disease-modifying treatment for T1D. The full proceeds, when funded, are expected to fund the company through 2026 and topline Phase II results.

The transaction is being led by RA Capital Management, with participation from BVF Partners, Sessa Capital, Commodore Capital, RTW Investments, Marshall Wace, and the JDRF T1D Fund.

SAB will use the funds to clinically advance SAB-142, its lead therapeutic candidate for T1D, which is expected to advance to clinical trials in Q4 2023. SAB-142 is a fully-human alternative to rabbit anti-thymocyte globulin (rATG). SAB-142’s mechanism of action is similar to that of rATG, which has been clinically validated in multiple clinical trials for T1D, demonstrating the ability to slow down disease progression in patients with new or recent onset of Stage 3 T1D.

“We’re pleased to have the support of this world-class syndicate of investors in the field of type 1 diabetes,” said Eddie Sullivan, co-founder, President, and Chief Executive Officer of SAB. “This financing will enable us to advance SAB-142, our disease-modifying immune therapy with the potential for annual redosing to halt diabetes progression, into human trials in the coming months. Our mission is to help shift the T1D treatment paradigm from daily maintenance with devices and exogenous insulin to a disease-modifying approach that offers durable preservation of pancreatic function by addressing the root cause of T1D.”

Two clinical trials have shown that a single, low dose of rATG has demonstrated the ability to modulate the body’s immune response to help slow beta cell destruction and preserve the ability of these cells to generate insulin, which the body needs to regulate blood sugar and carry out all human activities.

SAB-142, like rATG, directly targets multiple immune cells involved in destroying pancreatic beta cells. By stopping immune cells from attacking beta cells, this treatment preserves insulin-producing beta cells. However, most humans treated with rATG develop serum sickness and anti-drug antibodies from exposure to the rabbit-derived antibody. SAB-142 is a human antibody, intended to allow safe, consistent re-dosing for T1D, a lifelong chronic disease, without the potential risk of inducing the major adverse immune reactions that can occur with administration of a fully animal ATG.

“The potential for SAB’s lead therapeutic candidate for T1D to utilize human IgG antibodies without the need for human donors to protect pancreatic cells from autoimmune attacks represents a significant shift in treatment options for people with diabetes,” said Steven St. Peter, M.D., Managing Director of the JDRF T1D Fund, a venture philanthropy fund focused on accelerating life-changing solutions to cure, prevent, and treat type 1 diabetes. “We are pleased to partner with SAB’s strong leadership team and a diverse group of leading life sciences investors to thoughtfully advance this innovative and potentially groundbreaking lead therapy while supporting the Company’s patient-centric mission.”

Chardan served as the exclusive placement agent for the private placement transaction. Raymond James acted as financial advisor. Brookline Capital Markets, a division of Arcadia Securities, LLC, also acted as financial advisor. Milestone Advisors acted as strategic advisor.

ABOUT THE PRIVATE PLACEMENT

Pursuant to the securities purchase agreements, the Company will issue to the Investors an aggregate of up to 130,000 shares of the Company’s preferred stock. The Offering will include several tranches as outlined in the Company’s filings with the SEC (including a current report on Form 8-K being filed on October 2, 2023) and will total up to \$130 million in gross proceeds to the Company if all subsequent tranches are executed. In addition, investors, will have the right to exercise warrants to purchase up to an additional 130,000 in shares of the Company’s preferred stock for up to \$130 million in additional gross proceeds.

In connection with the Offering, the Company has also agreed to appoint Andrew Moin, Partner and Analyst with Sessa Capital, to the Company’s Board of Directors (the “Board”).

The securities to be issued in connection with the private placement described above are being offered in a private placement under Section 4(a)(2) of the Securities Act of 1933, as amended (the “Act”), and Regulation D promulgated thereunder and have not been registered under the Act or applicable state securities laws. Accordingly, such securities may not be offered or sold in the United States except pursuant to an effective registration statement or an applicable exemption from the registration requirements of the Act and such applicable state securities laws. The Company has agreed to file a resale registration statement with the U.S. Securities and Exchange Commission (the “SEC”), for purposes of registering the resale of the common stock issued or issuable in connection with the private placement.

This press release shall not constitute an offer to sell or a solicitation of an offer to buy any of the securities described herein, 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.

For further information, including a description of the funding structure and timing for the various funding tranches, please see the Company’s current report on Form 8-K to be filed with the SEC.

About SAB Biotherapeutics, Inc.

SAB Biotherapeutics (SAB) is a clinical-stage biopharmaceutical company focused on developing fully human, multi-targeted, high-potency immunoglobulins (IgGs), without the need for human donors or convalescent plasma, to treat and prevent immune and autoimmune disorders. The company’s lead asset, SAB-142, targets type 1 diabetes (T1D) with a disease-modifying therapeutic approach that aims to change the treatment paradigm by delaying onset and potentially preventing disease progression. Using advanced genetic engineering and antibody

science to develop Transchromosomal (Tc) Bovine™, the only transgenic animal with a human artificial chromosome, SAB's DiversitAb™ drug development production system is able to generate a diverse repertoire of specifically targeted, high-potency, fully-human IgGs that can address a wide range of serious unmet needs in human diseases without the need for convalescent plasma or human donors. For more information on SAB, visit: <https://www.SAb.bio/>.

Forward-Looking Statements

Certain statements made herein that are not historical facts are forward-looking statements for purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995. Forward-looking statements generally are accompanied by words such as “believe,” “may,” “will,” “to be,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “should,” “would,” “plan,” “predict,” “potential,” “seem,” “seek,” “future,” “outlook,” and similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These forward-looking statements include, but are not limited to, statements regarding future events, including the closing of each tranche of the Company's private placement offering, the timely funding to the Company by each investor in the private placement offering, the development and efficacy of our influenza program, type 1 diabetes program, and other discovery programs, the likelihood that a patent will issue from any patent application, the results, including timing, of the development of SAB-142 and SAB-176 (including any IND filing or proposed clinical trials), financial projections and future financial and operating results (including estimated cost savings and cash runway), the outcome of and potential future government, and other third-party collaborations or funded programs (including negotiations with the DoD).

These statements are based on the current expectations of SAB and are not predictions of actual performance, and are not intended to serve as, and must not be relied on, by any investor as a guarantee, prediction, definitive statement, or an assurance, of fact or probability. These statements are only current predictions or expectations, and are subject to known and unknown risks, uncertainties and other factors which may be beyond our control. Actual events and circumstances are difficult or impossible to predict, and these risks and uncertainties may cause our or our industry's results, performance, or achievements to be materially different from those anticipated by these forward-looking statements. A further description of risks and uncertainties can be found in the sections captioned “Risk Factors” in our most recent annual report on Form 10-K, as amended, subsequent quarterly reports on Form 10-Q, as may be amended or supplemented from time to time, and other filings with or submissions to, the U.S. Securities and Exchange Commission, which are available at <https://www.sec.gov/>. Except as otherwise required by law, SAB disclaims any intention or obligation to update or revise any forward-looking statements, which speak only as of the date they were made, whether as a result of new information, future events, or circumstances or otherwise.

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